Faunal Provinces and Patterns of Diversity in Late Cretaceous (Santonian-Maastrichtian) Larger Foraminifera

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Zusammenfassung

Die umfassende Analyse von 25 unterschiedlichen Genera von Großforaminiferen aus der Oberkreide bezüglich ihrer globalen Verbreitung zeigt signifikante Muster. Diese sind auf Gattungsniveau in eine regionale, eine überregionale und eine globale Kategorie unterteilbar. Insgesamt lassen sich vier Faunenprovinzen (FP) aufstellen: 1) Karibische FP, 2) Asiatische FP, 3a) Europäische Tethys, und 3b) Afrikanische Tethys. Diese sind durch das Auftreten bzw. durch Absenz spezifischer Taxa definiert. Die Faunenprovinzen der Europäischen und der Afrikanischen Tethys zeigen interferierende Muster die im Grenzbereich amalgamieren. Eine eindeutige Differenzierung bedarf deshalb weiterer Analysen. Die Europäische Tethys kann weiterhin in einen westlichen sowie einen östlichen Bereich gegliedert werden. Die Auswertung der Diversität zeigt einen maximalen Wert im westlichen Bereich der südeuropäischen Tethys. Ein weiteres Diversitätsmaximum befindet sich im östlichen Teil. Die Diversitätsmaxima sind vermutlich in der zur Verfügung stehenden Fläche (flache Schelfbereiche) und den damit einhergehenden Faktoren (große Individuenzahl, hohe Temperatur, starke Sonneneinstrahlung, hohe Mutationsrate) begründet. Oberflächenströmungen sind im Wesentlichen für die Verbreitung von Großforaminiferen verantwortlich und beeinflussen damit auch gleichzeitig die Biodiversität. Das Diversitätszentrum in der oberkretazischen europäischen Tethys ist in seinen Eigenschaften mit dem heutigen “hotspot” der marinen Diversität, das sich im Indopazifischen Ozean befindet, vergleichbar. Man kann daher von einer Verlagerung des “hotspot” aus dem europäischen Bereich der Tethys in der Oberkreide in den Indopazifik heute sprechen. Maßgebliche Voraussetzung für diese Verlagerung war die Veränderung der paläogeographischen Situation von der Oberkreide bis heute.

Abstract

A detailed biogeographical analysis of the global distribution of 25 different genera of larger symbiont-bearing foraminifera from the Late Cretaceous reveals that they exhibit distinct patterns. On a generic level, the distribution is divisible into regional, superregional and global categories. Four Faunal Provinces (FP) were established: 1) Caribbean FP, 2) Asiatic FP, 3a) European Tethys, and 3b) African Tethys. The precise classification of the latter two Faunal Provinces into subprovinces requires further detailed studies. The European Tethys can be divided into western and eastern subprovinces. The analysis of generic diversity shows a maximal value in the western part of the Southern European Tethys. A second peak, with a minor value, is situated in the eastern part. Maximum diversity appears to result from the large available area (shallow shelf regions) and corresponding physical and biological factors (high temperature, high insolation, high mutation rate). The prevailing sea surface currents are the main influence on the distribution of the larger foraminifera, as well as on the extent of the bioprovinces. The center of diversity in the Late Cretaceous European Tethys is comparable in its characteristics with the modern “hotspot” of marine diversity, which is situated in the Indopacific Ocean. Therefore, it is possible to speak of a displacement of the “hotspot” from the European Area of the Tethys in the Late Cretaceous to the Indopacific region in modern oceans. The displacement is the result of paleogeographic changes that occurred since the Late Cretaceous.

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1 Introduction

Analyses of patterns of biodiversity are of enormous significance for scientists. They concentrate either on recent biodiversity patterns to find out where the “hotspots” are located and why they occur at that position, or they analyze the patterns of biodiversity in different time slices to interpret the changes in time and space. All these approaches are useful features to understand the variety of life, its changes through time and finally suggest potential avenues for the preservation of biological variety.

The subject of this dissertation is the analysis of patterns of diversity in larger foraminifera that have lived during the Late Cretaceous. The time slice under consideration is from the beginning of the Santonian (85.8 Ma) to the end of the Maastrichtian (65.5 Ma). This time span is of particular interest as it is just before the huge mass extinction at the end of the Cretaceous, in which about 85 % of the marine and terrestrial species become extinct.

Due to their great abundance throughout the phanerozoic time and their global distribution, foraminifera provide spectacularly detailed datasets, which can be used to recognize patterns of biodiversity and their changes in time and space. In addition, larger foraminifera are particularly useful for distributional analyses since genera and species appear to follow similar patterns of dispersal (Adams, 1967; Langer and Hottinger, 2000).

To date, predominantly local distribution patterns were studied and global diversity patterns of larger foraminifera have been only sparsely investigated. Langer and Hottinger (2000) examined the global distribution pattern of selected recent larger foraminifera and Adams (1967, 1983, 1989) analyzed patterns from the Tertiary. They established Faunal Provinces in respect to the time span under consideration. Today four Faunal Provinces for larger symbiont-bearing foraminifera exist: 1) the Inner, Central Pacific province, 2) the Central Indopacific realm, 3) the Western Indian Ocean including the Red Sea and the Persian Gulf, and 4) the Caribbean realm (Langer and Hottinger, 2000). For the Tertiary three Faunal Provinces were compiled: 1) America, 2) Tethys, and 3) Indo-Pacific (Adams, 1967). These changes raise questions concerning driving mechanisms of biogeographic pattern through time and potential causes affecting these changes.

The biogeographic distribution of Late Cretaceous symbiont-bearing larger foraminifera has not been examined to date. This work of the global distribution of 25 genera therefore fills a gap.

Aim of this work is to increase the knowledge of the global biogeographic distribution pattern of several larger foraminifera in the Late Cretaceous. Priority was given to the analysis of the

prevailing literature, which deals with the occurrences of the chosen genera, and the critical verification of the data presented therein. In addition, material from selected locations was added to this data set. The aim was the establishment of global distribution maps for each genus of larger foraminifera. With the help of these maps common biogeographic patterns were compiled. On the basis of the distribution patterns, faunal provinces were defined and are compared with the currently accepted faunal provinces of Tertiary and Modern taxa (Adams, 1967; Langer and Hottinger, 2000). The observed changes were recorded and subjected to causal analysis. The diversity of Late Cretaceous foraminifera was examined and compared with available recent and fossil diversity pattern. These changes in biodiversity pattern through time are of special interest for researches in biodiversity as they allow statements about the driving mechanisms. The results can be used to track geologic changes and to solve geologic problems of the past.

2 Material and Methods

In this study the global distribution patterns of 25 genera of larger benthic foraminifera were analyzed. The generic classification is based on Loeblich and Tappan (1988). The material used for this analysis stems from 1) critically reviewed literature, 2) sampling material from different locations, and 3) material which was provided by other scientists.

The first step was the establishment of a database: the data recorded were author, stratigraphic age, location, location number, illustration, and facies for each genus. The dataset is based on about 200 critically reviewed scientific publications of different authors, who analyzed selected regions for their foraminiferal content or concentrated on the distribution of certain genera or species. The rule was to check the presence or absence of the foraminiferal genera in the cited locations. The illustrations in the literature were of special importance as they allowed the verification of the generic identification. If no illustrations or morphological description were provided, the data were treated with special caution.

The examined time slices comprise the Santonian (85.8-83.5 Ma), the Campanian (83.5-70.6 Ma) and the Maastrichtian (70.6-65.5 Ma). The ages are based on the International Commission on Stratigraphy (ICS, 2004; Gradstein et al., 2004). The global correlation of the Late Cretaceous (Santonian, Campanian and Maastrichtian) was based on planktonic foraminifera (Figure 2.1) following the correlation after Bolli et al. (1985) and Berggren et al. (1995).

Stage	Planktonic Foraminifera
Maastrichtian	*Abathomphalus mayaroensis*
	Gansserina gansseri
	Globotruncana aegyptiaca
	Globotruncanella havanensis
Campanian	*Globotruncanita calcarata*
	Globotruncana ventricosa
	Globotruncanita elevata
Santonian	*Dicarinella asymetrica*
	Dicarinella concavata
Coniacian	

Figure 2.1: Stratigraphic correlation based on planktonic foraminifera (Bolli et al., 1985)

Additional material was collected from Greece and from Spain. Those localities were chosen, because they are situated at the eastern and the western margin of the Cretaceous Tethys respectively, and can be called “key regions” of the Tethys. With a prevailing westerly flow

Greece lies at the "beginning" of the Tethys, Spain at the "end". A comparison of the faunal content from both localities can provide information about the distributional ranges of foraminifera. The sea surface currents, coming from the eastern part of the Tethys, have to pass through the relatively narrow strait between Spain and Africa. Due to their distribution via surface currents, it is supposed that most of the foraminiferal genera that occur in the eastern part of the Tethys should appear in this region too.

Sampling on the SW-Peloponnes (Greece) took place from 21.07.2003 - 28.07.2003. The areas sampled are situated between the localities of Pylos and Methoni, Messinia. Thin sections were made from the rock samples using a bronze sintered diamond cut-off wheel. These were analyzed for the presence of the studied genera. The sampling around Tremp, Catalonia (Spain) occurred from 29.09.2003 until 03.10.2003. Here predominantly loose material was sampled, which was dissolved either in 30% H_2O_2, or in H_2O, for 24 hours depending on the material. Afterwards the foraminifera were picked out of the material and identified. Additionally, it was possible to analyze some material from Marseille (France), Jamaica and Haymana (Central-Anatolia), which was provided by Prof. Dr. Lukas Hottinger, Naturhistorisches Museum Basel, Switzerland. An overview of the samples and the location can be found in the appendix 13.1 "Sampling Material".

Analyses of Late Cretaceous carbonate platforms (Figure 2.2) by Simo et al. (1993) indicate areas with shallow marine water. These regions provide indices of expected occurrences of larger symbiont-bearing foraminifera. To the south the main appearance is limited by the 30° latitude, while the northward extension reaches about 35° North.

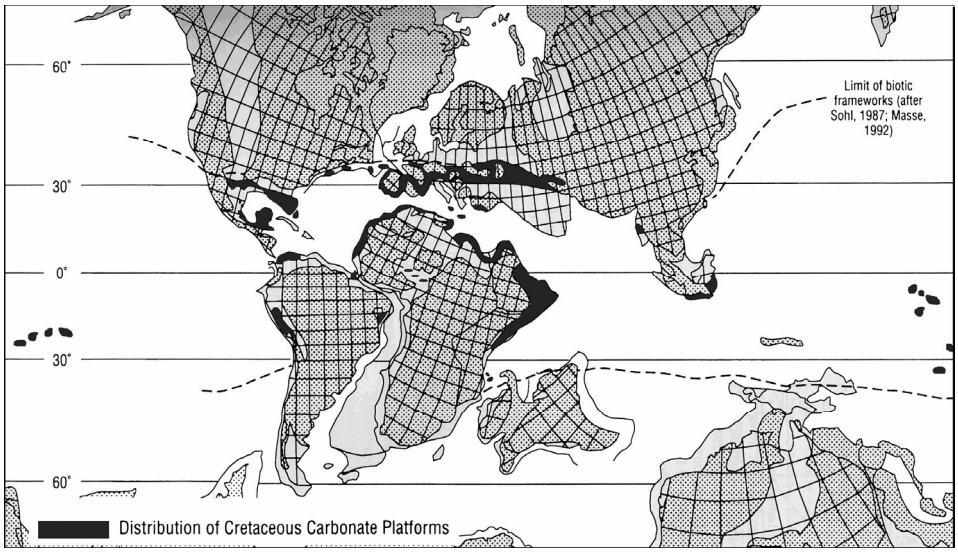

Figure 2.2: Cretaceous Carbonate Platforms (Simo et al., 1993)

The dataset, which can be found in a table in the appendix 13.2 “Tables of the genera”, was used as foundation for the construction of the biogeographic distribution maps. In this table the following aspects are described: 1) Publication, 2) Citation (primary literature), 3) Genus, 4) Species, 5) Reference, 6) Formation, 7) Stratigraphic Age, 8) Location-Number, 9) Station, 10) Site, 11) Location-Description, 12) Country, 13) Faunal Province, 14) Illustration, 15) Association, 16) Lithology, 17) Collection Déposée, 18) Abundance, 19) Facies, and 20) Remarks. With the exception of the Location-Number, the Faunal Province, and the Remarks, all data were taken from the literature. Detailed positions were only included when provided in the literature.

Nearly 200 tropical and subtropical locations worldwide were analyzed. Closely situated sites were combined generating about 80 locations, which were plotted on a global world map (Figure 2.3; modified after Ziegler et al. 1997) showing the paleogeographic situation during the Maastrichtian.

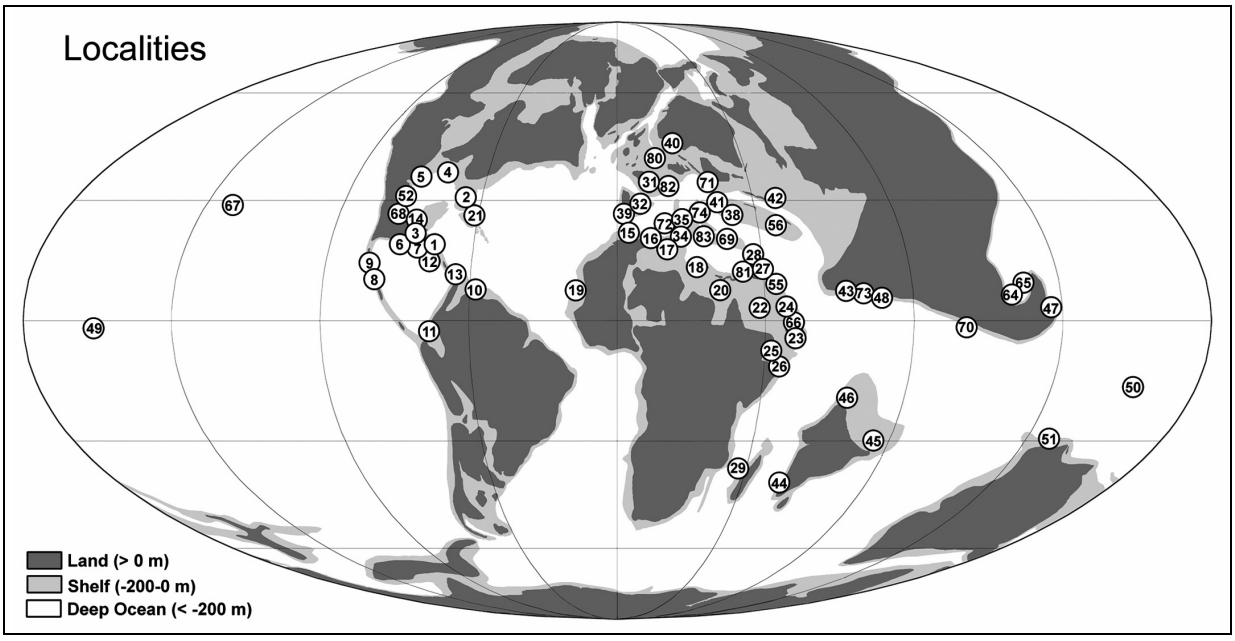

Figure 2.3: Localities (modified after Ziegler et al. 1997)

For reasons of clarity, some of the closely spaced localities in the world map were plotted together (e.g. Belgium (30) + The Netherlands (57) = 80; Jordan (75) + Israel (53) + Lebanon (54) = 81). An overview of all locations with the appropriate location numbers is given in the appendix 13.3 “Localities”. A distributional map was established for each genus in which localities were plotted showing where individuals of that genus have been reported.

With the help of the distribution maps Faunal Provinces (FP) were established. Further, the diversity of the foraminifera was analyzed and compared with the biodiversity of recent larger foraminifera.

3 Foraminifera

In modern oceans foraminifera represent an astonishingly diverse group of shelled microorganisms. In 1988, Loeblich and Tappan described 2455 foraminiferal genera, 878 of which are recent ones (Sen Gupta, 1999). Due to their great abundance they are used for biostratigraphy, age dating and correlation of sediments, and paleoecological interpretation (Loeblich and Tappan, 1988). The first unambiguous benthic foraminifera are of Cambrian age (Langer, 1999; Sen Gupta, 1999) and the earliest most-probable foraminifera are of Precambrian age (Langer, 1999) while the first planktonic species occurred in the Middle Jurassic (Schiebel and Hemleben, 2005).

In 1992, Loeblich and Tappan raised the taxonomic rank of foraminifera from an order to a class, so that in the systematic classification of Sen Gupta (1999) the class Foraminifera belongs to the Kingdom Protocista, Subkingdom Protozoa, Phylum Granuloreticulosa.

Foraminifera are marine eukaryotic protists, which possess granuloreticulose pseudopodia and a test. This test can be built of various materials which gives rise to a differentiation of several groups of foraminifera: 1) organic material (Allogromiina), 2) agglutinated material (Textulariacea), 3) calcium carbonate microgranular (Fusulinacea), 4) calcium carbonate porcelaneous (Miliolina), 5) calcium carbonate hyaline (Rotaliina), and 6) opaline silica (Silicoloculinina). Further, foraminifera are also characterized by an alternation of asexual and sexual reproduction. This feature was often the reason for some confusion as it is sometimes associated with a pronounced dimorphism e.g. in *Rhapydionina*, which was first designated as two genera.

The test morphology shows a great variety. It ranges from single-chambered to multilocular forms, with chamber arrangements varying from simple uniserial to complicated streptospiral or trochospiral. Also, the apertures show a high diversity from single terminal to multiple cribrate openings. These features are often adapted to the environmental setting of foraminifera. Observations of modern foraminifera, their morphology and their environment have made it possible to reconstruct the environments of the past.

Larger foraminifera, on which this thesis focuses, first occur in the Late Carboniferous with the group Fusulinids (Hottinger, 1982) and numerous genera are still present today. They can be distinguished from their smaller relatives by their larger size (2 mm – 15 cm, Hohenegger, 1999) and in contrast to their smaller counterparts they possess a complicated internal structure. Most of the larger foraminifera house endosymbionts. These are unicellular algae (diatoms, rhodophyts, chlorophyts, dinoflagellates) living in the cytoplasm of the host, where

they photosynthesize (Hottinger, 1982; Leutenegger, 1984; Hallock, 1988). They are distinguishable by the coloration they give to the living foraminifer (e.g. diatoms give foraminifera a brownish and yellow, rhodophyts a purple and chlorophyts a green color; Röttger, 1983). The presence of endosymbionts in fossil foraminifera can be recognized by polygonal eggholder structures in which they have lived (Hottinger, 1982). The advantages of the symbiosis between host and symbiont are not yet completely clarified. Foraminiferal benefits might result from the energy from photosynthesis and calcification increases while the symbiont assimilates the hosts metabolites (Hallock, 1999, 2000).

Due to the symbiosis the larger symbiont-bearing foraminifera adapt to their environments and also their test morphology and shell structure to the requirements of the symbiont. To allow photosynthesis the symbionts need an environment with clear water, which can be found best in oligotrophic settings of neritic shallow regions. The foraminifer itself optimizes the light intensity by building thin transparent test walls or light-collecting mechanisms like nodes and pillars, or they retard high irradiation by building thicker tests or porcelaneous structures, making the walls impenetrable (Hottinger, 1997; Hohenegger, 1999). Too strong effects of light can be regulated by symbiont movement or by crawling into shaded areas (Hottinger, 1997 and literature therein).

Larger fossil foraminifera are usually found in carbonates and calcareous clays. The favored environments are the open shelf, fore-reefs, top-reef and back-reef (lagoonal), where they live on or near the sea floor or on the vegetation (Adams, 1983; Langer and Lipps, 2003).

Another very important factor for larger symbiont-bearing foraminifera is the prevailing water temperature. Langer and Hottinger (2000) discovered that in general the minimal temperatures of most modern larger foraminifera are between 14° C and 20° C, which restricts the distribution to the tropical and subtropical regions. These temperatures are also essential for the growth and reproduction of the endosymbionts.

Foraminifera possess different feeding strategies. They are microherbivores, micro-carnivores, omnivores, detrivores or suspension feeders (Lipps, 1983). In the oligotrophic environments of the subtropical and tropical regions, these feeding strategies are not necessarily required in larger symbiont-bearing foraminifera. Housing endosymbionts provides a selective advantage in these settings because the hosts are able to obtain nourishment in different degrees from their symbionts. Extreme examples are some Nummulitidae and Calcarinidae, which were not observed to feed anything but their endosymbionts (Hallock, 1999 and literature therein).

Larger foraminifera are exclusively benthic and are either epiphytes or move on or in the sediments. The different modes of life are reflected in their test forms and apertures. Epiphytes are characterized by a discoidal test with marginal apertures or by various test shapes with elongated or flattened apertural faces. Foraminifera living on or in the bottom have diverse test shapes and many of them have a canal system (Hottinger, 1984 in Caus, 1988).

Active distribution of benthic foraminifera is only made possible by the movement of the reticulopodia, with which the protists attach to the substrate and pull the test forward (Hottinger, 1982; Travis and Bowser, 1991). This is a very slow process with rates up to a few millimeters per hour for shallow water species (Alve, 1999 and literature therein).

Several forms of passive distribution are discussed in detail in Lessard (1980). In their larval stage foraminifera easily drift in sea surface currents. In a later ontogenetic stage distribution can occur through sedimentological processes via disrooted plants or spreading by other animals. These possibilities, which might have influenced the global distribution of larger foraminifera, will be discussed in detail in chapter 5 “Distribution of larger foraminifera”.

4 Late Cretaceous Paleoenvironmental Setting

This chapter will provide an overview of the Late Cretaceous situation concerning paleogeography, paleoceanography, paleoclimatology, and paleoecology. The knowledge of these parameters, which are strongly interwoven and related to each other, is indispensable for the analysis of global distribution patterns of any organisms, terrestric or marine.

Paleogeography concerns the position of the continents respective to each other in a certain time slice. The different arrangement of landmasses has a great influence on paleoceanography. The varying extension of the seaways results in differences in the pattern of the paleocurrents. Poulsen et al. (1998) demonstrated in several experiments with different paleogeographic patterns, that paleogeographic evolution is an important mechanism of climatic and environmental change. Finally, all these components – paleogeography, paleoceanography and paleoclimatology – are the main factors that control the paleoecology of the organisms, which inhabit these environments.

4.1 Paleogeography

At the end of the Cretaceous the global paleogeographic situation was distinctly different compared to the modern one (Figure 4.1). The map clearly shows that in the Late Cretaceous much more shelf areas existed and that the continents were situated much closer together than they are today.

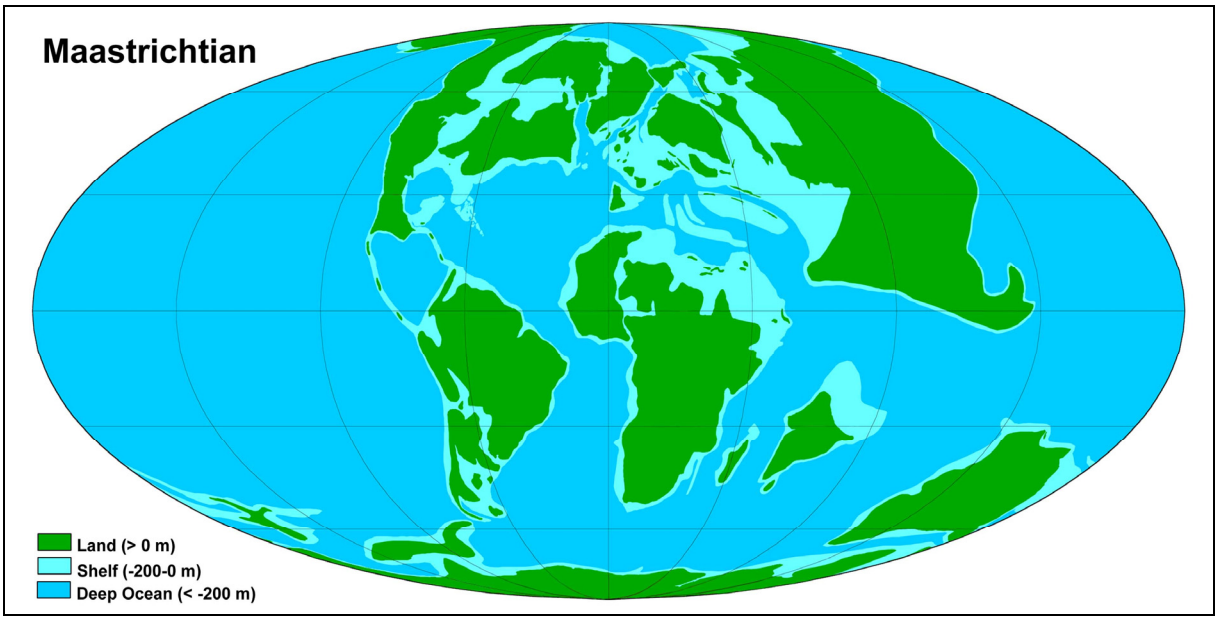

Figure 4.1: Paleogeographic situation in the Maastrichtian (after Ziegler et al. 1997)

The Late Cretaceous constellation of the continents is the result of the breakup of the supercontinents Laurasia in the north and Gondwana in the south during the Jurassic. Between those landmasses a continuous equatorial seaway existed, the Tethyan Ocean. In the Early Cretaceous the southern Atlantic Ocean opened, which still formed a narrow sea in the Late Cretaceous. South America drifted to the west, while Africa and India rotated anticlockwise in a northern direction. In the Tertiary, India collided with Eurasia, resulting in the Himalayan orogeny. The former northern landmass Laurasia split up and the western North America and the eastern Eurasia drifted away from each other.

In the Late Cretaceous North and South America were still divided by a broad seaway and the Caribbean Islands had not yet been formed. Australia was still very close to Antarctica, and formed a landmass together with Papua New Guinea. The Asian region including the Philippines, Malaysia and China was an undifferentiated large complex. The variety of the islands in the modern Pacific Ocean did not yet exist. The north of Africa was flooded by the Mediterranean Tethys, as was the southern part of Europe and the western part of Asia, which resulted in the broad Tethyan seaway.

4.2 Paleoceanography

This section deals with the paleoceanographic situation in the Late Cretaceous and focuses on the sea level, the flow of the paleocurrents and the environmental situation in selected oceanic regions.

Of particular importance is the elevated global sea level, which rose throughout the Mesozoic and reached a maximum in the early Late Cretaceous (Skelton, 2003). It was about 200 m higher than today (Haq et al., 1987; Skelton, 2003). On one hand this was affected by the climate optimum, which resulted in ice-free polar caps, and on the other hand it was caused by the growth of new mid-ocean ridge systems and of an increased production of oceanic crust in the Cretaceous. This produced large areas of uplifted ocean floor, which displaced water from the ocean basins (Briggs, 1995; Skelton, 2003). Among other methods benthic foraminifera might be used as indicators for the reconstruction of paleo sea level (Armynot du Châtelet et al., 2005).

The result of the raised sea level can be seen in the modified distribution of land and sea compared to today (see Figure 4.1). Very striking is the huge shelf area in Eurasia and northern Africa. Apart from the western Iberian Peninsular, northeast Europe and some medium-sized islands, the entire European continent was situated below sea level. In addition, the Iberian Peninsular as well as the southern European countries (Italy, Balkans) was isolated by deep ocean straits. The latter were situated as patches between the Eurasian and the African shelf region. Another huge shelf region dominated the western part of Asia. A shallow water region characterized the North of Africa from Algeria to Egypt, as well as the whole Arabian Peninsular. North America was crossed by the Western Interior Seaway, which spanned from the Gulf of Mexico to the Arctic Ocean. Florida and eastern Mexico were below sea level as well as many parts of southern South America. The Caribbean region was still a broad seaway with two narrow north-south running bars on which small islands developed. In the north of the Indian subcontinent, which was on the same latitude as South Africa, a huge shelf region was located.

Due to the situation in the Tethys between Europe and Africa and the seaway in the Caribbean area, a broad circumglobal connection of the oceans occurred, which inevitably must have influenced the global current system.

The Cretaceous current system often is a topic of detailed researches (Barron and Peterson, 1989; Bush, 1997; Bush and Philander, 1997; Vermeij, 1997; Poulsen et al., 1998; Hay et al., 1999; Pearson et al., 2001; Cousin-Rittemard et al., 2002) in which authors use certain ocean

models (Parallel Ocean Climate Model: Poulsen et al., 1998; Atmospheric General Circulation Model: Bush, 1997). A comparison of all these hypotheses is difficult because the authors mostly used different time slices (Mid-Cretaceous: Barron and Peterson, 1989; Poulsen et al., 1998; Campanian: Hay et al., 1999; Cousin-Rittemard et al., 2002; Maastrichtian: Bush, 1997) with different paleogeographies. Further, the specific models were based on different resolutions (5° x 5°: Barron and Peterson, 1989; 3.6° x 2.0°: Bush, 1997; 2°x 2°: Poulsen et al., 1998; Cousin-Rittemard et al., 2002) and vertical layers (4: Barron and Peterson, 1989; 15: Bush, 1997; 20: Poulsen et al., 1998).

The common feature of all these publications is a westward current flow with varying strength. It seems that the mid-Cretaceous current flow was relatively weak (Barron and Peterson, 1989; Poulsen et al., 1998), but intensified towards the Late Cretaceous. A fundamental determinant for the current strength in the Tethys was the paleogeography of Eurasia (Cousin-Rittemard et al., 2002). The first analysis of the Tethys current was connected with a simple coarse paleogeography (see Gordon, 1973 in Barron and Peterson, 1989), where the Tethys was a broad even element. This resulted in a very weak Tethyan current. With increasing resolution (2° x 2°) the paleogeographic illustration advanced, and also identified the narrower currents and the gyres, which occur in the Mediterranean Sea, which complicate the current system. Also, Poulsen et al. (1998) showed in several experiments with different paleogeographic patterns that paleogeographic evolution is an important mechanism of climatic and environmental change.

For this work the sea surface currents are of utmost importance, as they affect the distribution of larger foraminifera, either by the dispersion in their larval stage or attached to disrooted seaweeds.

The process of distribution itself was briefly discussed in chapter 3 “Foraminifera”, and will be discussed in detail in chapter 5 “Distribution of larger foraminifera”.

Several methods can be used to reconstruct the Late Cretaceous ocean surface currents. One is based on the analogy between modern sea surface currents and geography to the Late Cretaceous ones. Another method is the reconstruction by the distribution patterns of marine organisms.

Sea surface currents are influenced by several features such as solar heating, earth rotation, wind systems and the position of the continents (Veron, 1995). Due to the Coriolis force the currents on the northern hemisphere are deflected to the north, and on the southern hemisphere to the south. This results in large gyres in the different oceans on each

hemisphere, which creates a complex current system (Figure 4.2). Here the situation of the continental landmasses is of great importance as it affects the current patterns.

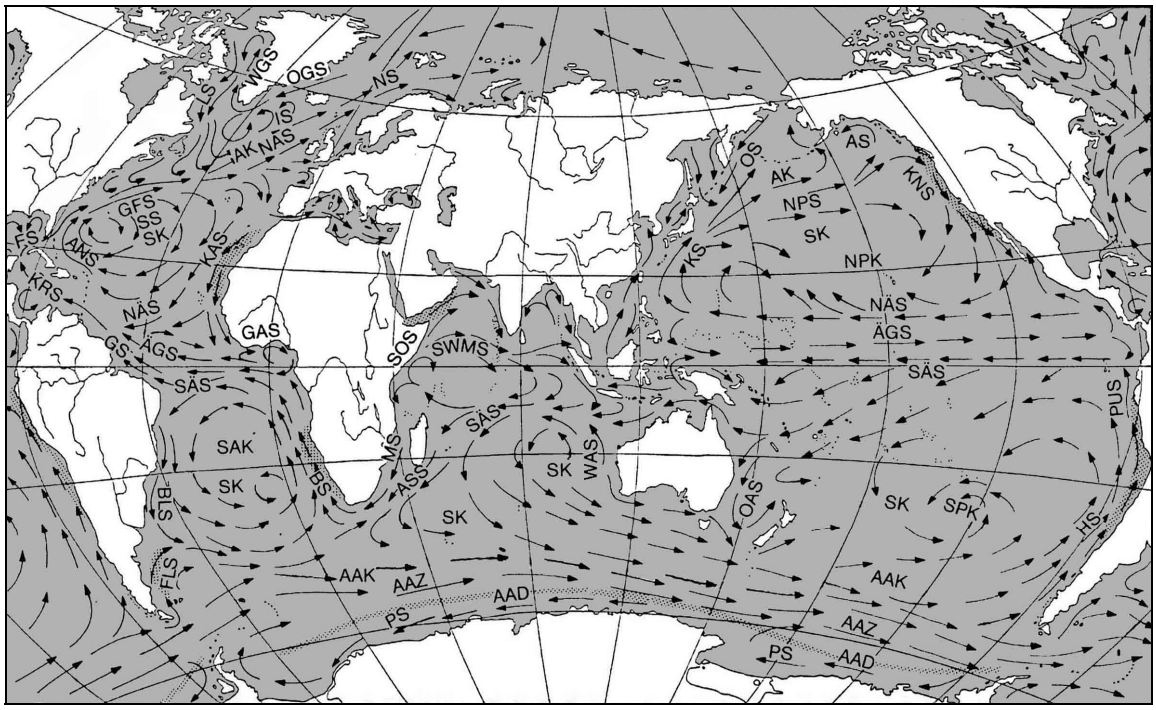

Figure 4.2: Sea surface currents in the modern oceans (after Ott, 1996)

The reconstruction of Late Cretaceous surface currents is based on the assumption that the earth rotation and the great wind systems remain relatively constant throughout history. One main controlling factor of the current system is the paleogeographic situation (Skelton, 2003). Based on these premises and the modern current system, potential current patterns for the Cretaceous can be erected (Figure 4.3).

The Late Cretaceous was characterized by a westward circumtropical current pattern. The equatorial current flowed through the Pacific Ocean and the Indian Ocean in-between India and Asia in a northwestern direction into the Tethys. Afterwards it circulated between Spain and Africa into the Atlantic Ocean, and by passing the broad seaway between North and South America back into the Pacific Ocean. It is quite possible that gyres were present north and south of the equator, which had different qualities depending on the various sizes of the oceans. In the Tethyan region between Europe and Africa there certainly existed a complex current pattern, as a result of the variety of smaller landmasses.

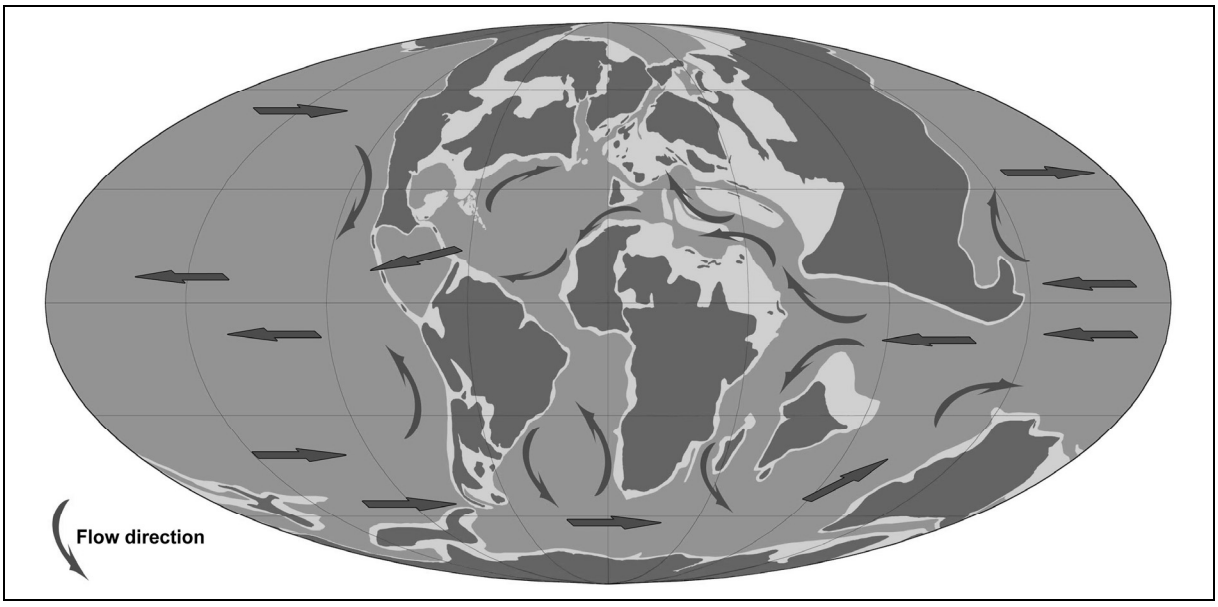

Figure 4.3: Hypothetical current patterns of the Late Cretaceous

The second method of reconstructing the Late Cretaceous current pattern is based on the distribution of marine organisms. In this case the stratigraphic distribution of certain marine taxa is analyzed. Benthic organisms with planktonic larvae (corals, benthic foraminifera) are preferred, as their distribution mainly occurs in a passive way. Either in their juvenile stage via currents or as adults by other mechanisms, for example by disrooted plants. But it has to be kept in mind, that they can also be transported by other organisms like fishes, to which they attach and detach in new environments (see also Lessard, 1980 and literature therein; Murray, 1991, 2006). Their stratigraphic occurrence in different locations can help to reconstruct the ancient current systems.

One part of this work will be to find out if, and to what degree, the biogeographic data of the analyzed larger foraminifera correlate with these models, and if both models agree with each other.

The historical development of some regions which are essential for the distribution of the larger foraminifera is still in discussion and therefore require some explanations.

One of these regions is the Caribbean region. Today, the Caribbean Plate is separated in the North from the North American Plate by transform faults, which cross the Greater Antilles. In the West the Cocos Plate is subducted while in the East the North American and the South American Plate are subducted. To the South the Caribbean Plate is separated from the South American Plate by complex zones of deformation (Skelton, 2003). Several models for the development of the Caribbean Plate exists, some of which (Pindell, 1994; Kerr et al., 1999)

are introduced in Skelton (2003), but most of the authors favor an origination of the plate in the Pacific Ocean in the Cretaceous with an eastward movement between the Americas (Skelton, 2003). Great affinities between the foraminiferal content of the Caribbean and the central Pacific led to the conclusion that those locations were in a close connection during the Cretaceous. Several authors (Schlanger and Premoli Silva, 1981; Premoli Silva and Brusa, 1981 and literature therein) support the theory that these locations were situated much closer together in the Late Cretaceous than they are today and that shallow-water "stepping stones" facilitated the distribution of the foraminifera.

4.3 Paleoclimatology

For this work, the paleoclimate is of utmost importance as it regulates the temperature of the shallow water areas to which the larger foraminifera are restricted. As discussed in chapter 3 "Foraminifera" these organisms are restricted to the subtropical and tropical regions. The climate depends on many factors, which affect each other, such as the continental configuration, sea level, orography, ocean gateways, bathymetry, etc. (Crowley, 1998). The average global annual surface temperature in the Late Cretaceous was around 14.8-16.2° C, with a CO_2 content of 340 ppm [= present atmospheric level (PAL)], and around 18.4-20.4° C with an elevated CO_2 level of 2-3.5x PAL (Fawcett and Barron, 1998).

In this chapter I will concentrate on the sea surface temperature (SST) of the shallow shelf regions, as these are the habitats of the larger foraminifera. In the Late Cretaceous tropical sea surface temperatures were estimated to be about 30° C (Pearson et al., 2001; Skelton, 2003). A simulation of the surface water temperature of Hay and DeConto (1999) revealed 32-34° C in the Campanian equatorial areas (0-15° N and S) and about 8-16° C in polar regions (66.5-90° N and S), while analyses of δ^{18} O values of rudist bivalves indicate seasonal extremes up to 37° C in the upper Turonian-Coniacian and lower Campanian (Steuber et al., 2005). Haupt and Seidov (2001) described two different climatic scenarios of the Late Cretaceous, which are based on publications of Poulsen et al. (1998) and Poulsen (1999). The first intermediate Cretaceous scenario places sea surface temperatures in the northern subpolar ocean at 6° C and in the southern subpolar ocean at 12° C, while the equatorial SST was approximately 28° C (Poulsen, 1999). The second warm Cretaceous scenario is characterized by temperatures of 20° C in both subpolar regions, whereas the equatorial SST was about 31° C (Poulsen, 1999). Both scenarios are possible in view of the minimal temperature requirements of larger foraminifera.

A new method, called TEX_{86} (analyses of the composition of lipids in the membranes of Crenarchaeota) revealed an icecap-free Arctic sea in the Late Cretaceous (70 Ma) with an average SST of 15° C. This implies an equator to pole gradient SST of about 15° C, which results in equatorial (~ 5-10° S) sea surface temperatures of 27-32° C. An explanation for the warm Cretaceous is a high concentration of atmospheric carbon dioxide resulting from high rates of volcanic outgassing (Jenkyns et al., 2004; Poulsen, 2004).

Suitable indicators for a warm marine climate are the huge and numerous carbonate platforms, which existed in the tropical and subtropical regions of the Late Cretaceous (Figure 4.4). In the Late Cretaceous carbonate platforms extended beyond the 30° latitudes, whereas

modern carbonate platforms are restricted to a much narrower latitudinal belt. The distribution seldom passes the 30° latitudes (Simo et al., 1993).

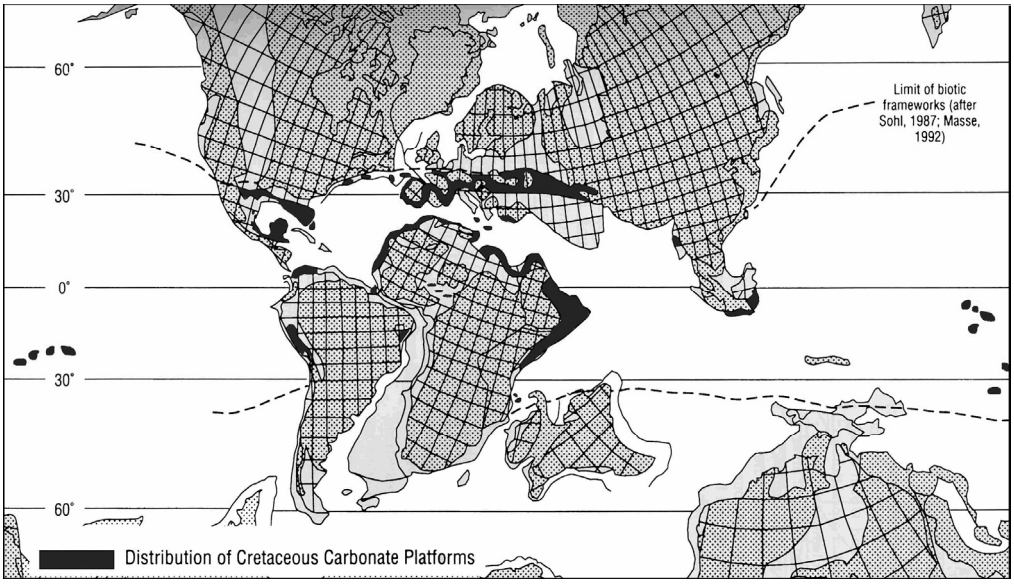

Figure 4.4: Cretaceous Carbonate platforms (Simo et al., 1993)

Since pronounced carbonate precipitation is governed by water temperature the position of the carbonate platforms (Figure 4.4) can provide clues to the occurrence of the larger foraminifera. In the Late Cretaceous Carbonate Platforms are known from the shelf regions along the North African coastline from Somalia to Mauritania and in the shallow water areas in the European Tethys between Portugal and South Russia. Further Carbonate Platforms existed in the Caribbean area and along the east and west coast of South America to Brazil and Peru. In Asia, carbonates are recorded from the tip of the continent, as well as some patches in the southern Pacific Ocean (Simo et al., 1993; Skelton, 2003).

Based on the Late Cretaceous Paleogeography (Figure 4.1), the hypothetical sea surface currents (Figure 4.3) and the distribution of the Carbonate Platforms (Figure 4.4), assumptions about the distribution of Late Cretaceous larger foraminifera can be made (see also Skelton, 2003).

4.4 Paleoecology

This chapter deals with the paleoecology of the analyzed larger symbiont-bearing foraminifera. As this work focuses on fossil genera from the Late Cretaceous only hypothesis about the behavior and the habitat can be made. No direct investigation is possible, but often an indirect interpretation can be made by the analysis of the morphology, the surrounding lithology, comparison to modern relatives, or a combination of these features.

The first possibility is a comparison with extant members of the same family, e.g. *Siderolites* as a member of the extant family Calcarinidae Schwager. The modern genera *Baculogypsina* and *Calcarina* live attached to hard substrates, in high energetic environments (Hallock et al., 1991; Hohenegger, 1996; Hohenegger and Yordanova, 2001). Their fossil relatives *Siderolites* have probably lived in the same habitat, which is suggested by their similar morphology (Hohenegger, 1999). The lithology, in which the fossil is embedded, can give hints to the consistency of the sediment and the paleoenvironmental situation of the ancient organisms. A sandy lithology, for example, refers to a nearshore, eventually unprotected habitat, often with terrestrial influence. Interpretation of the morphology constitutes one of the most reliable ways to draw conclusions about paleoecology. Both, the modern calcarinids and the fossil *Siderolites* have large spines, which are a tool for attachment in areas of high energy.

Analysis on a generic level creates some difficulties for paleoecological interpretation, as the environmental constrains and requirements may differ on species level. This can be demonstrated in the fossil genus *Lacazina*. *Lacazina compressa* shows a short thick morphology and lived at depths to around 40 m, where it seemed to prefer an environment of high water energy and hard substrate (Hottinger, 1983). However, the smaller elongated form *L. elongata* is interpreted to have lived in depths from 40 to 80 m in regions of low water energy on soft substrate (Hottinger, 1983). Due to these difficulties, this work will focus on general statements, which require further analyses on species level.

The paleoenvironment of larger symbiont-bearing foraminifera has been the subject of several studies (e.g. Hottinger, 1983; Caus, 1988; Hallock, 1999; Hohenegger, 1999), which have attempted to understand the biology of these organisms.

Caus (1988) provided a milieu interpretation for Late Cretaceous larger foraminifera of the Pyrenean neritic platform. Four basic assemblages of larger foraminifera were distinguished: 1) restricted shelf with abnormal salinity (lagoons and intertidal zones), *Laffitteina* in lagoonal facies types; 2) protected shelf with normal salinity (carbonate and terrigenous facies): two

different assemblages on the protected carbonate shelf; 2a) a shallower one, 0-40 m; discoidal agglutinated larger foraminifera, porcelaneous foraminifera (predominance of complex Miliolidae and thickwalled, evolute Meandropsinidae), rotaliids; *Lacazina compressa*; 2b) increasing depth, 40-60 m; conical forms; *Dictyopsella*, *Lacazina elongata*; 3) reefs, shoals and bars; larger foraminifera are adapted to high energy; Siderolitinae, thick orbitoids; 4) open marine shelf; perforate larger foraminifera; *Lepidorbitoides*, *Clypeorbis*, *Sirtina*, Siderolitinae. The interpretation of these environments and the assignment of larger foraminifera might be transferred to similar regions and may be used to understand the paleoenvironment and the foraminiferal content.

Hottinger (1983) analyzed the test morphology of larger foraminifera in relation to the depth of the habitat and postulated the following succession with increasing depth: conical-agglutinated => discoidal porcelaneous => fusiform porcelaneous => thickly lenticular-perforate => flat lenticular- or discoidal-perforate types.

Further, there are some morphological features of larger foraminifera that indicate certain habitats. Some of those are listed below concerning the analyzed larger foraminifera.

- Rotaliids: on the bottom sediment (Reiss and Hottinger, 1984)
- Alveolinids: high energy zones of the shallow ramp (Hohenegger, 1999): *Subalveolina*
- discoidal agglutinated: epiphytic (Reiss and Hottinger, 1984): *Clypeorbis*
- lateral chamberlets only on one side of the shell: chamberlets are located on the illuminated dorsal side, opposite to the apertural face always directed towards the substrate (Hottinger, 1997): *Sirtina*
- annular growth and orbitoidal test construction: deeper environments (Hohenegger, 1999): *Orbitoides*, *Hellenocyclina*, *Lepidorbitoides*
- 'calcarinid' *Siderolites* possibly lived attached to hard (organic?) substrates analogous to its recent relatives (Hohenegger, 1999)
- thick tests or porcelaneous structures, making the walls impenetrable, block high irradiation: intertidal and extremely shallow subtidal environments (Hohenegger, 1999)
- thin transparent test walls facilitating light penetration (Hohenegger, 1999)
- light-collecting mechanisms (e.g. nodes, pillars) facilitate light penetration: near the base of the photic zone (Hohenegger, 1999)

5 Distribution of Larger Foraminifera

The distribution of the benthic larger foraminifera depends mainly on warm water ocean currents. As mentioned in chapter 3 “Foraminifera”, the only active movement of adult foraminifera is by the use of pseudopodia, which is not very effective. In the juvenile stage foraminifera might be transported by ocean currents, but this stage is of such a brief duration that it can be disregarded as a major dispersal factor (Adams, 1967). The most probable method of distribution is rafting of individuals, or of small colonies, on seaweed to which they are attached or hidden in rhizomes. This kind of distribution is important to those benthic larger foraminifera which have lived attached to leaves or roots and which have shared the same environment as seagrass. The belonging to a general habitat is difficult, because the tolerance of desiccation, turbidity, current agitation, sediment thickness, grain size, humic content, light intensity and periodicity and temperature are species-dependant (Brasier, 1975 and literature therein). Most seagrass is found below mean low water and above 12 m depth, and some forms are tolerant to hypersaline conditions (Brasier, 1975 and literature therein). The first reported seagrass-like fossils are protozosteroids and cymodoceoids from the Late Cretaceous of Japan and northern Europe (Figure 5.1; den Hartog, 1970; Eva, 1980).

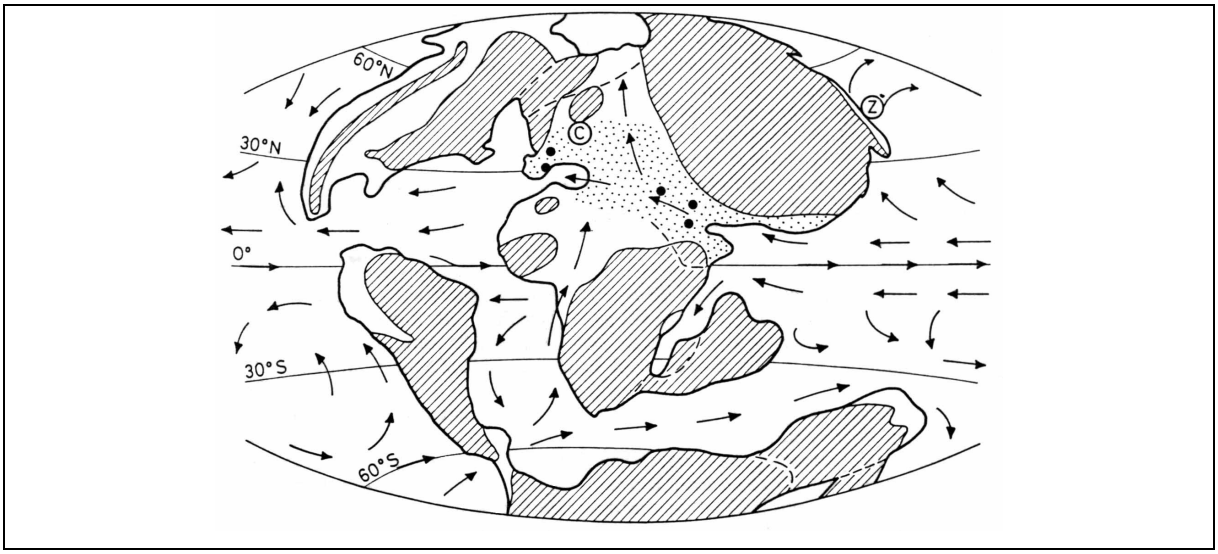

Figure 5.1: Occurrence of Late Cretaceous seaweed; (c) fossil cymodoceoids, (z) protozosteroids, black circles: records of possible seagrass-dwelling foraminiferids, stipples: inferred distribution of “tropical” seagrass (after Brasier, 1975)

The distribution of Cretaceous seaweed is debatable. While Brasier (1975) supports the theory that the Cretaceous distribution is confined to the Tethyan area, Eva (1980) concluded from

the similar morphology of the foraminiferal genera *Chubbina* and *Pseudedomia*, that the Caribbean *Chubbina* indicates also the presence of seagrass in the Caribbean area. This would explain the distribution of global occurrences of foraminifera, but for a definitive statement more Cretaceous fossils of seaweed are necessary.

Another important factor for the distribution of larger foraminifera is the temperature in the prevailing sea surface currents. Due to the requirements of their endosymbionts foraminifera are restricted to warm water. Langer and Hottinger (2000) discovered that recent larger foraminifera require temperatures above 14° C (Figure 5.2).

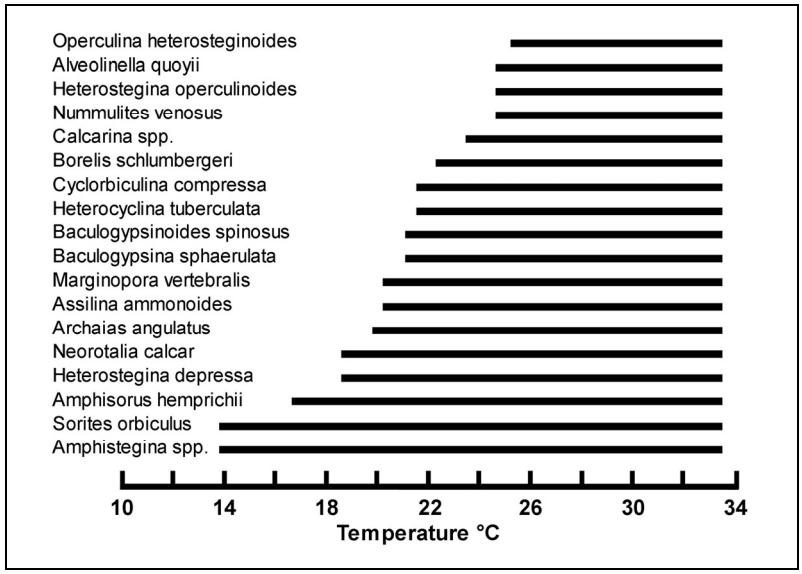

Figure 5.2: Temperature ranges of selected recent larger foraminifera (after Langer and Hottinger, 2000)

Adams (1967) argued that even the modern sea surface currents are warm enough to permit the transport of larger foraminifera. As discussed in chapter 4.3 “Paleoclimatology”, in the Late Cretaceous the global temperature reached a maximum (Skelton, 2003), which implies that the sea surface temperature was also higher. This must have been sufficiently warm enough for larger foraminifera to survive a passage across the oceans. In the new environment they certainly must have found a suitable habitat to settle and to reproduce.

Finally, the existence of suitable sea surface currents is necessary for the distribution of larger foraminifera. In chapter 4.2 “Paleoceanography” the different models of currents were presented. The hypothetical sea surface currents of the Late Cretaceous (Figure 4.3), which were established on these models, clearly show that a worldwide distribution via sea surface currents was possible.

6 Faunal Provinces

Adams (1967, p. 198) gave the following definition of a Faunal Province: "…each of which is characterized by the presence of genera and species of marine invertebrates not found in the others, although all possess some elements in common."

The faunal provinces of larger foraminifera have been only sparsely examined. The global distribution patterns of selected recent larger foraminifera were analyzed by Langer and Hottinger (2000) while Adams (1967, 1983, 1989) studied patterns from the Tertiary. All authors established Faunal Provinces for larger foraminifera relevant to the time span, which they covered.

Modern Faunal Provinces

Langer and Hottinger (2000) erected four Faunal Provinces for modern larger symbiont-bearing foraminifera: 1) Inner, Central Pacific province, 2) Central Indopacific realm, 3) Western Indian Ocean including the Red Sea and the Persian Gulf, and 4) Caribbean realm (Figure 6.1).

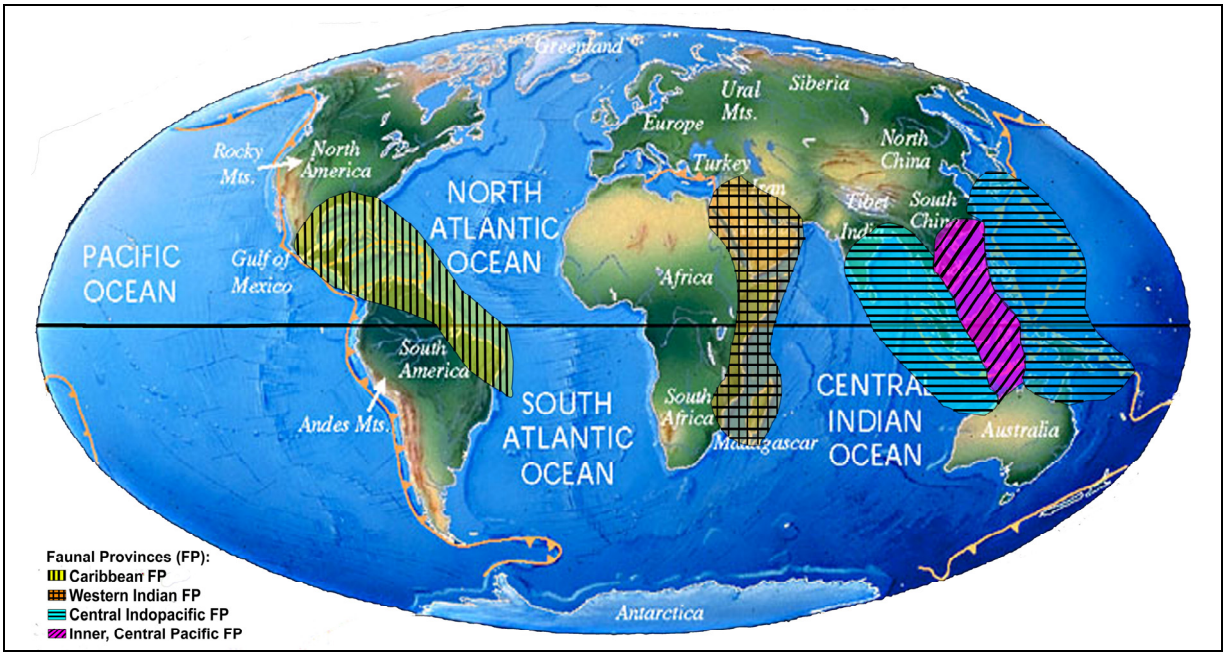

Figure 6.1: Faunal Provinces of modern larger symbiont-bearing foraminifera (modified after Langer and Hottinger, 2000, and http://www.scotese.com/modern.htm)

These faunal provinces are situated in a belt, which ranges between 36° North and 34° South. They are divided by barriers, which consist on the one hand of the longitudinal extension of

the continents America and Africa, on the other hand by oceanic circumstances. These include the great distances of the oceans as well as the prevailing current patterns. Gyral systems exist in the northern and in the southern hemisphere, which are separated from each other by the landmasses and by the equatorial currents. These systems form cells, with the interior cut off from the exterior inflow (Langer and Hottinger, 2000).

Lessard (1980) analyzed the Pacific Ocean concerning its migration potential for microorganisms and established four sectors (Figure 6.2).

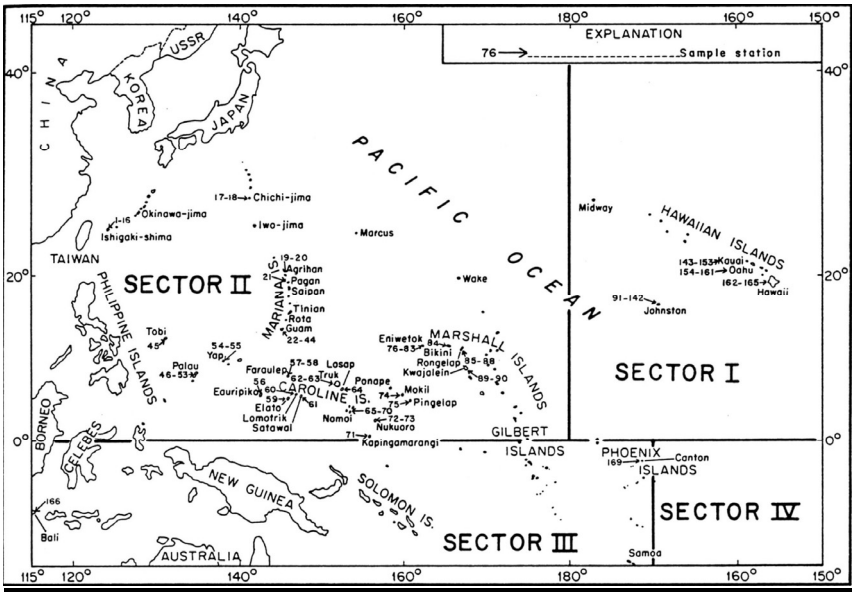

Figure 6.2: Subdivision of the Pacific Ocean in four sectors (after Lessard, 1980)

Sector I and II are separated from sector III and IV by the Equatorial Current. A migration between sectors I and II is prevented by the gyre in the northern Pacific Ocean, which is formed by the Northern Equatorial Current and the Northern Pacific Current. Sectors III and IV on the southern hemisphere are separated by a gyre, which results from the Southern Equatorial Current and the Antarctic Circumpolar Current. Sectors I and IV are characterized by few islands which are widely distributed, while in sectors II and III many islands are situated closely together. The situation in sector II and III results in a complex current pattern which facilitates a fast and wide distribution in the Indopacific region, which can be verified by the distribution of recent larger foraminifera.

Tertiary Faunal Provinces

In the Tertiary the global belt in which larger foraminifera occurred was much broader than today. It extended between 50° North to 50° South (Adams, 1967). This might be linked with

the climate, which was much warmer than today (Skelton, 2003). Adams (1967, 1983) established three Faunal Provinces for larger foraminifera from the Tertiary (Figure 6.3): 1) Central America, 2) Tethys, and 3) Indo-West Pacific. These Faunal Provinces cannot be strictly separated from each other. Elements of the Central American Province can also be found in Western Africa where they are merged with elements of the Mediterranean Province. The same situation exists in the region of the Near East, where the Mediterranean and the Indo-West Pacific Province mingle. Further, Adams (1967) mentions that the Mediterranean can be further divided into two parts: 1) the modern Mediterranean in the West and 2) an eastern region, which comprises the area east of Iran and Iraq. The center of dispersal in the Paleogene seems to be in the western Tethys were no endemic genera existed (Adams, 1967).

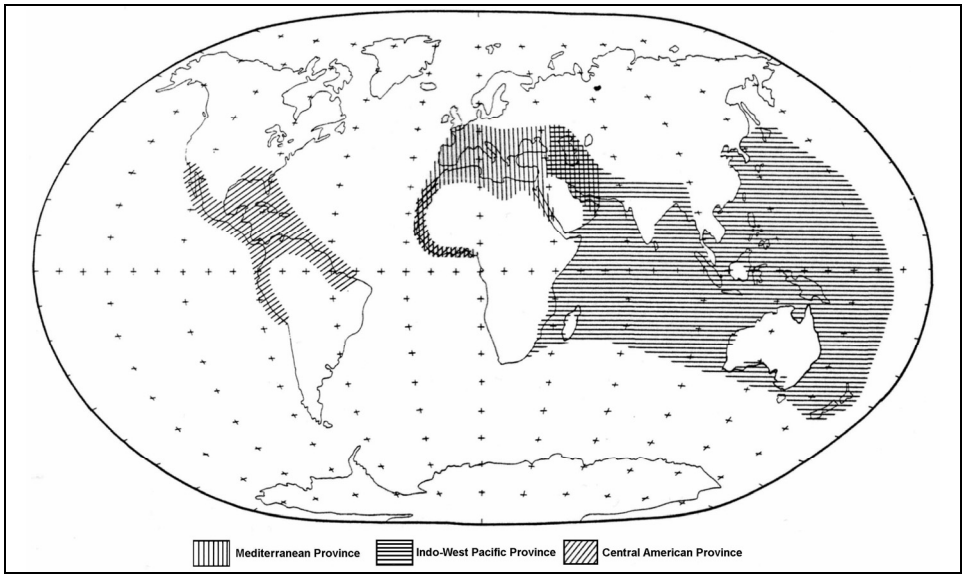

Figure 6.3: Faunal Provinces of larger foraminifera during much of the Tertiary (after Adams, 1983)

Although there existed great barriers between the Faunal Provinces, in the form of oceans, some genera are represented in all three provinces, and some genera are restricted to one province (Adams, 1967). This distribution was probably made possible by the rafting of seaweed, to which foraminifera were attached, and which was torn off by storms (Adams, 1967). Crossing the Atlantic Ocean by means of the Gulf Stream would appear to be much easier through this mechanism in comparison to crossing the eastern Pacific Ocean, where the lack of islands prevented the distribution.

Cretaceous Faunal Provinces

No global faunal provinces are established yet for the Cretaceous. Only Hottinger et al. (1989) recognized a Pyrenean Faunal Province during the Santonian and Campanian. It ranges between the Cantabrian shelf, the Gulf of Marseille and the shelf bordering the Betic Cordilleras. This area is defined by the occurrence of strictly endemic, shallow-water genera of larger complex foraminifera. In the recent literature often only local associations of larger foraminifera were analyzed (e.g. Seiglie and Ayala-Castanares, 1963; Ismail and Boukhary, 2001; Abdelghany, 2003) and few authors examined the distribution of a certain genus beyond a regional distribution (e.g. Pfender, 1935; Meric, 1967; Neumann, 1997).

7 Diversity Pattern

Before discussing methods and patterns of diversity, this term should be defined. The term “biodiversity”, composed of “biological diversity” was created by W.G. Rosen in 1986 in context with the conference “National Forum of Biodiversity” by the National Academy of Sciences in Washington D.C. The United Nations Convention on Biological Diversity defines "biodiversity" as "the variability among living organisms from all sources, including, inter alia, terrestrial, marine, and other aquatic ecosystems, and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems".

Studies of diversity have been the focus of research for both, terrestrial habitats as well as in marine biomes. It is controlled by a number of factors, which needs to be kept in mind when analyzing diversity pattern. Temperature, for example, increases towards the equator, and the ratio of land to sea is larger in the northern hemisphere than in the southern hemisphere. Further attributes are the available space, solar irradiation, wind, and current systems.

One method for expressing diversity is the relationship of diversity to the latitudinal gradient. Rosenzweig (1995) analyzed the percentage of known fossil foraminiferal species against latitude (Figure 7.1). It is remarkable that the highest values occur in the low-latitude regions. In this illustration, however, the number of occurring but unknown species is not given.

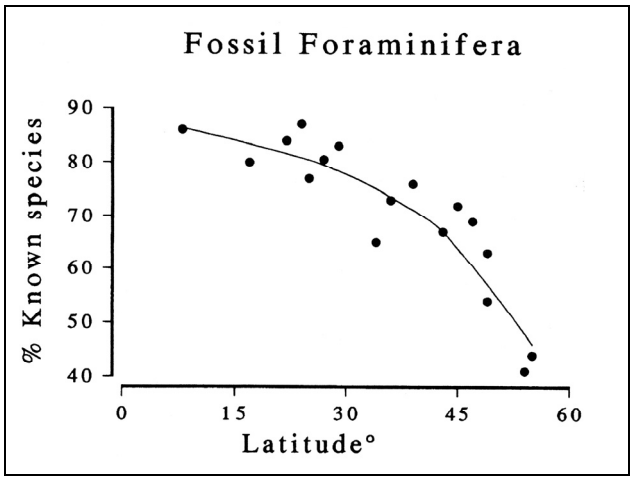

Figure 7. 1: Distribution of fossil foraminiferal species in relation to the latitude (Rosenzweig, 1995)

A subject of particular interest is the location of the “hotspot” of diversity. This hotspot is characterized as the location with the highest diversity of all examined organisms. For many marine organisms, living in shallow water of the subtropics and tropics, the modern hotspot of diversity is situated in the Indopacific region (Briggs, 1995).

This is also observable in the diversity of recent larger foraminifera (Figure 7.2), which were analyzed by Langer and Hottinger (2000). It is clearly visible that the maximal diversity (27 genera) lies in the area of the Indopacific Islands. The diversity decreases to the margins, and the decline is stronger to the East than to the West. In the Caribbean the diversity is also elevated (9 genera) but it is still three times lower than that in the Indopacific.

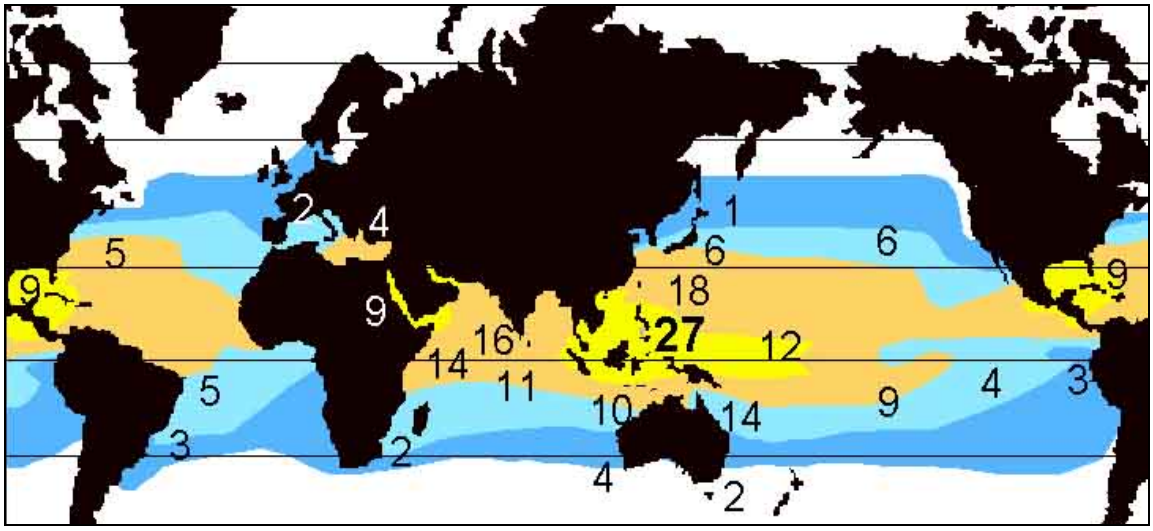

Figure 7.2: Generic diversity of Recent larger foraminifera (after Langer and Hottinger, 2000)

In the background of the map, the sea surface temperature of the oceans in August is displayed, with the highest temperatures in the Indopacific Ocean, in the Caribbean and around the Arabian Peninsular. It is easy to recognize that the diversity follows the temperature gradient.

The marine diversity pattern of tropical and subtropical larger foraminifera is congruent with the known pattern of other tropical organisms, as for example mangroves (Figure 7.3) and hermatypic corals (Figure 7.4).

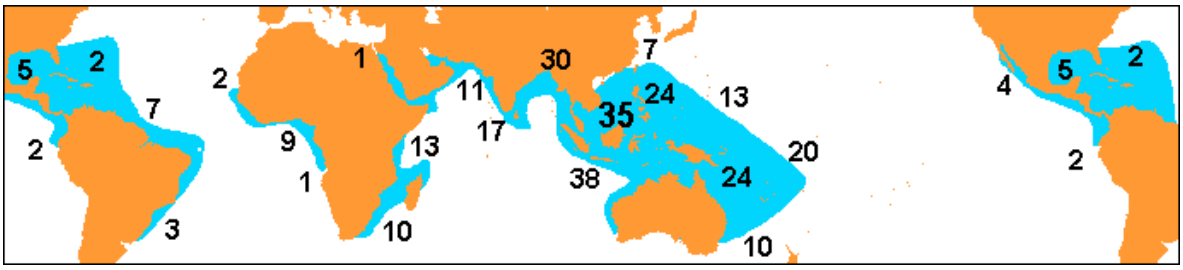

Figure 7.3: Global biodiversity of mangrove taxa on species level (Langer, unpublished after data from Rosen, 1988)

These groups of organisms were chosen because they prevail in similar ecological conditions as larger symbiont-bearing foraminifera. Mangroves are also restricted to the coastal shallow regions of the tropics and subtropics. The center of diversity is clearly observable in the western part of the Indopacific region with values of 35 and 38 species. The diversity decreases towards the margins of the shelf region. In the Indian Ocean the diversity is still high due to the presence of shelf regions along the coasts of India, the Arabian Peninsular and Africa. The Pacific Ocean does not show such a high diversity, which is due to the fact that the shelf regions are distinctly smaller. In the Caribbean region, the shelf region has a moderate diversity but this is seven times lower than in the Indopacific region.

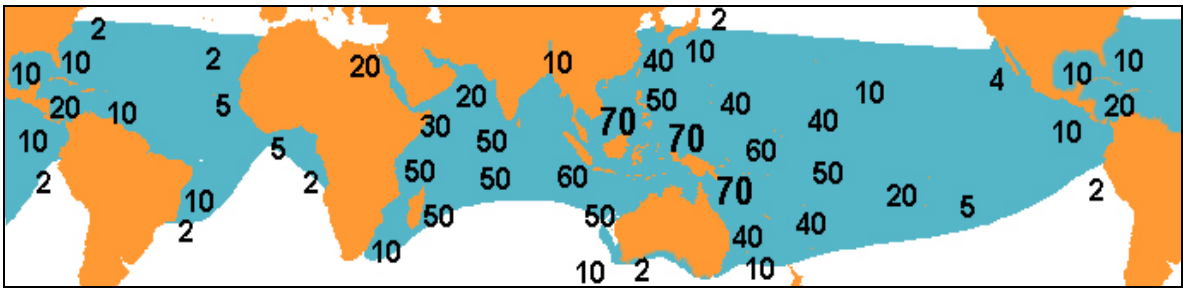

Figure 7.4: Global biodiversity of hermatypic corals on generic level (Langer, unpublished after data from Veron, 1995)

The other group of organisms under consideration is hermatypic corals. Like larger foraminifera they also possess endosymbionts and therefore are restricted to the shallow-marine euphotic zones of the tropical and subtropical shelf regions. The observations of corals are based on generic level. Here again the center of diversity is located in the Indopacific region with values of up to 70 genera. The global pattern of biodiversity is analogous to that of mangroves and larger foraminifera. The diversity decreases toward the Pacific and Indian Oceans, with the latter showing a higher diversity than the former. In the Caribbean Ocean, the diversity is again seven times smaller than in the hotspot of diversity.

In the previous analyses of mangroves and hermatypic corals it is important to recognize that the diversity of mangroves is based on species level while that of hermatypic corals is based on generic level. But it is clearly visible that the schemes of diversity are identical on both levels.

In all organisms analyzed (larger foraminifera, mangroves and hermatypic corals) the center of diversity is situated in the Indopacific core region (= hotspot). These comparable patterns of diversity lead to the conclusion that common controlling features are responsible for this situation.

If we compare the occurring diversity pattern with prevailing environmental features, the following facts are clear:

1) The center of diversity of all the analyzed organisms (larger foraminifera, mangroves, and hermatypic corals) is situated in the Indopacific region. In those specific areas the highest percentage of reefs occur (Figure 7.5). The Asiatic region comprises 29.4 % of the world reefs, followed by the Indian Ocean (23.6 %) and the South Pacific (12.4 %). The Caribbean region contains 9.2 % of the world reefs, which is three times lower than in the Asiatic region. This is consistent with the diversity values of larger foraminifera and hermatypic corals, which are also three times lower. For mangroves the Caribbean value is seven times lower than in the Asiatic region. Thus it is highly likely that availability of shallow water areas influences diversity.

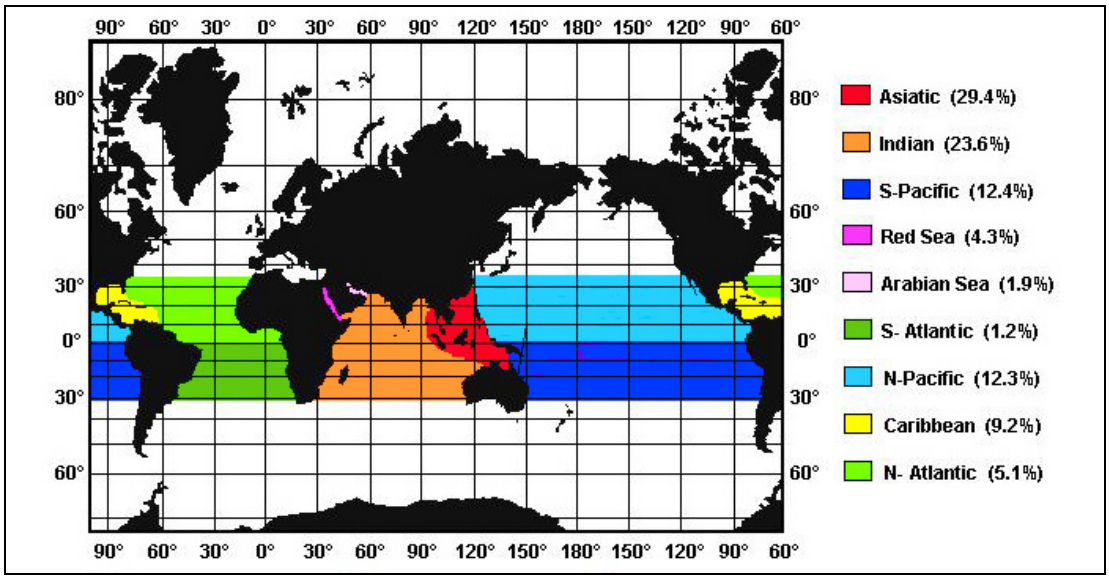

Figure 7.5: Percentage of the world reef region (after Langer, unpublished)

2) In the Indopacific region, the annual sea surface temperature is high throughout the year (Figure 7.6). The water temperature in the hotspot of diversity is characterized by a consistent value of 28° C. This is due to shallow water regions with strong solar irradiation, which heats the water body. This raised temperature strongly influences the diversity. As already mentioned above, diversity reflects a high specification rate. Specification is a result of genetic mutations, which are biochemical reactions, and therefore directly affected by the temperature.

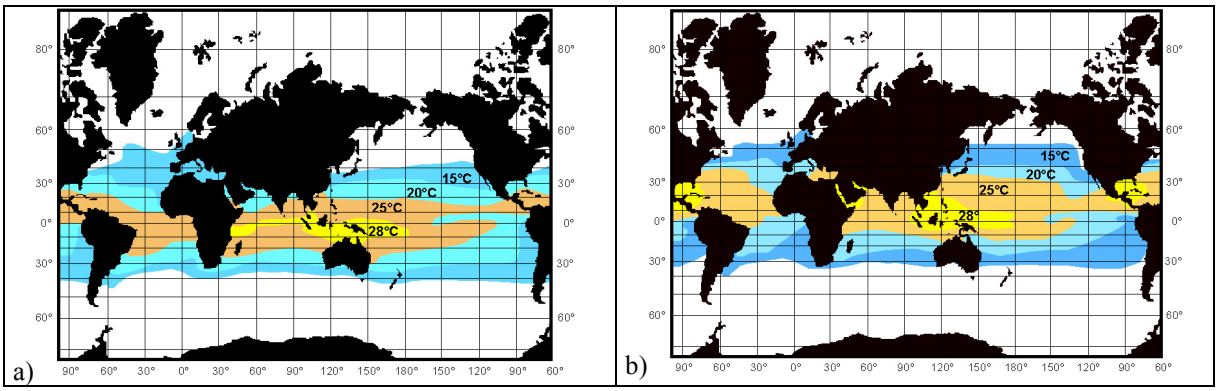

Figure 7.6: Sea surface temperatures of the world oceans in a) February and in b) August (after Langer, unpubl.)

3) In the Late Cretaceous the paleoceanography was dominated by a circumtropical seaway, part of which was the Tethys. After the closure of the seaways between South and North America and Eurasia and Africa this current system strongly changed. The Indopacific region is, so to speak, a relict area of the Tethys (Briggs, 1995). The influence of the paleogeographical changes was much weaker in the Indopacific Ocean, than for example in the Mediterranean Ocean, which became an enclosed basin with a decrease in temperature (Briggs, 1995). The main feature in the Indopacific Ocean, however, is a shallowing of the sea with an establishment of a huge region of shelf areas. This resulted in an establishment of many new habitats, where a lot of new species could occur. Therefore, it harbors old and new taxa together, which results in a higher diversity.

8 Results: Biogeographic Distribution of the Genera

This section deals with the biogeographical distribution of selected genera of symbiont-bearing larger foraminifera. For each genus several aspects such as description, illustration, species, age, biology, biogeographic distribution, and remarks are given. As was described in chapter 3 "Foraminifera" Loeblich and Tappan (1992) raised the rank of Foraminifera from order to class. Despite this fact, for reasons of clarity the suprageneric classification of this chapter will follow Loeblich and Tappan (1988). The description of the genera presents the diagnostic features, which were used for identification of the specimens. The dimension of the tests is usually species-specific, but to give a general impression of the size, the minimal and maximal values – if given - are provided. In the illustrations several different views are given. They were mainly taken from the literature. Generally two external views from different sides are given as well as illustrations of an equatorial and an axial section. In several cases the diagnostic features got more distinct by three-dimensional drawings. Although this perusal is on generic level the species of a genus are listed beneath the type specimen and synonyms in order to be able to verify the results of the biogeographic distribution on species level. References marked with "+" could not be completed by several reasons (e.g. literature not available etc.). The next section deals with the occurrence of the genus in different time slices (Pre-Santonian, Santonian, Campanian, Maastrichtian, Paleogene). In this section data are interpreted to provide a potential chronological distribution. Further, the biology of the genus is discussed. This discussion considers the following issues: The requirements can be strikingly different among species of a genus, so that it is sometimes not possible to give a general biological interpretation. The genera under consideration are all extinct, therefore a direct observation of the habitat is not possible. However, the analysis of environmental milieu or the associated fauna can give hints to the habitat. Moreover, the morphology of the foraminifera can give useful hints when it is compared with the appearance of modern relatives. In the chapter "biogeographic distribution" the locations and citations in the literature are listed. Underlined citations refer to references, which contain illustrations of the genus. Senonian and undifferentiated Late Cretaceous records are marked with "*". In the "Remarks" section a short discussion is given about the literature in which the genus is not illustrated or in which the treated genus is illustrated but where I do not agree with the classification. Finally additional important and interesting facts are given.

8.1 *Spirocyclina*

Suborder TEXTULARIINA Delage and Hérouard, 1896
Superfamily LOFTUSIACEA Brady, 1884
Family SPIROCYCLINIDAE Munier-Chalmas, 1887
Genus SPIROCYCLINA Munier-Chalmas, 1887 emend. Maync, 1959

8.1.1 Description

Munier-Chalmas erected the genus *Spirocyclina* in the year 1887. The lectotype is from Les Martigues, Etang de Berre with a Santonian age. The test of *Spirocyclina* is flat, with planispirally enrolled chambers that become peneropline in the adult stage. The diameter ranges between 1.82 mm and 10 mm. The thickness in the center varies between 0.25 mm and 0.45 mm. The chambers are narrow and strongly curved. They are subdivided by numerous chamberlets. The last rows of chambers can be detached from the preceding whorl. The wall is agglutinated.

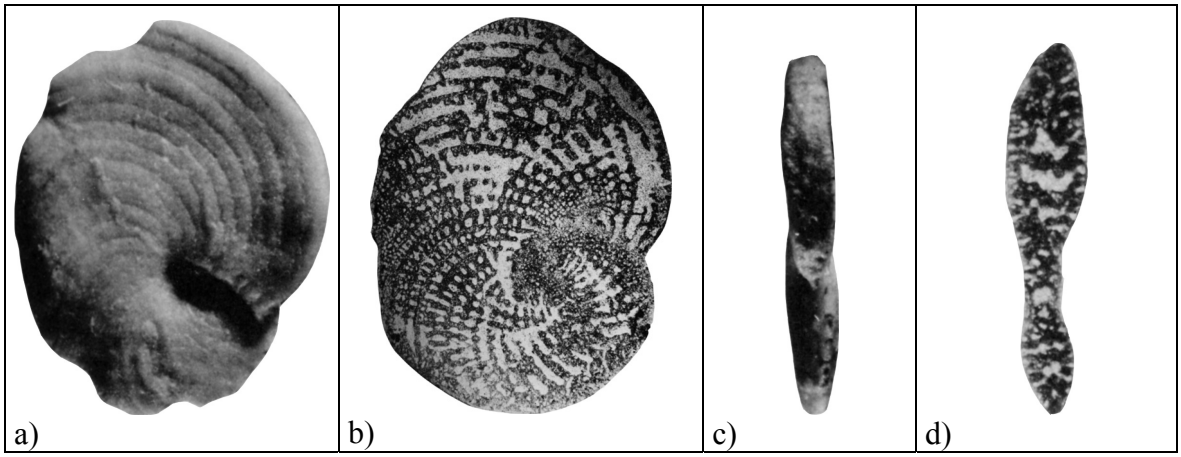

Figure 8.1: a) - d) *S. choffati* Munier-Chalmas emend. Maync; a) - d) Maync, 1959

8.1.2 Species

Type species: *Spirocyclina choffati* Munier-Chalmas, 1887[+]
Synonyms: *Spirocyclina* Munier-Chalmas, 1887[+]
Species: *S. choffati* Munier-Chalmas, 1887 emend. Maync, 1959; p. 38; pl. 1, figs. 1-10

8.1.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
FRA (31)	X	X			
POR (39)	X				
RUS (42)	X				

Figure 8.2: Stratigraphic range of the genus *Spirocyclina* in its reported localities

In the Early Cretaceous *Spirocyclina* is documented from sites in Portugal, France, and Russia (not illustrated). In the period under consideration it is only known from Les Martigues (31; France) where it occurs till the Santonian. Maync (1959) reported the genus from the Senonian, without giving a precise biostratigraphic age like Marie (unpubl. data) who refers *Spirocyclina* from the Late Cretaceous. For this genus it is not possible to identify an origination center, as there are Pre-Santonian records from the East and the West of the Mediterranean Tethys. During the Santonian it is only reported from France.

8.1.4 Biology

The ecological preferences for a specific habitat of *Spirocyclina* are not fully resolved to date since no interpretation of the habitat or associated fauna is given in the literature. The genus appears to favor shallow-water algal sites down to the limit of the photic zone. It may have lived as an epiphyte on plant substrates (Langer, 1993). It is often associated with shallow-water taxa like *Lacazina*.

8.1.5 Biogeographic distribution and Faunal Province

In the time from Santonian to Maastrichtian individuals of the genus *Spirocyclina* were found in the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

France (31): *Maync, 1959; Gendrot, 1965; Loeblich and Tappan, 1988; *Marie, unpubl.

Southern Europe: Dilley, 1973

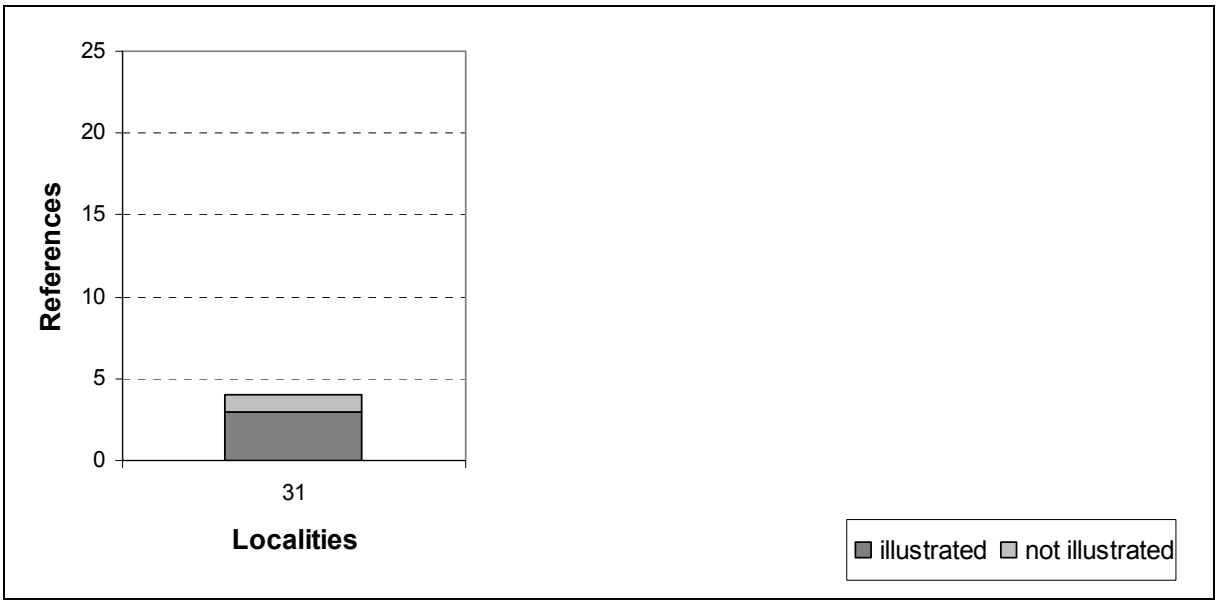

Figure 8.3: Number of illustrated and not illustrated references in the localities of Spirocyclina

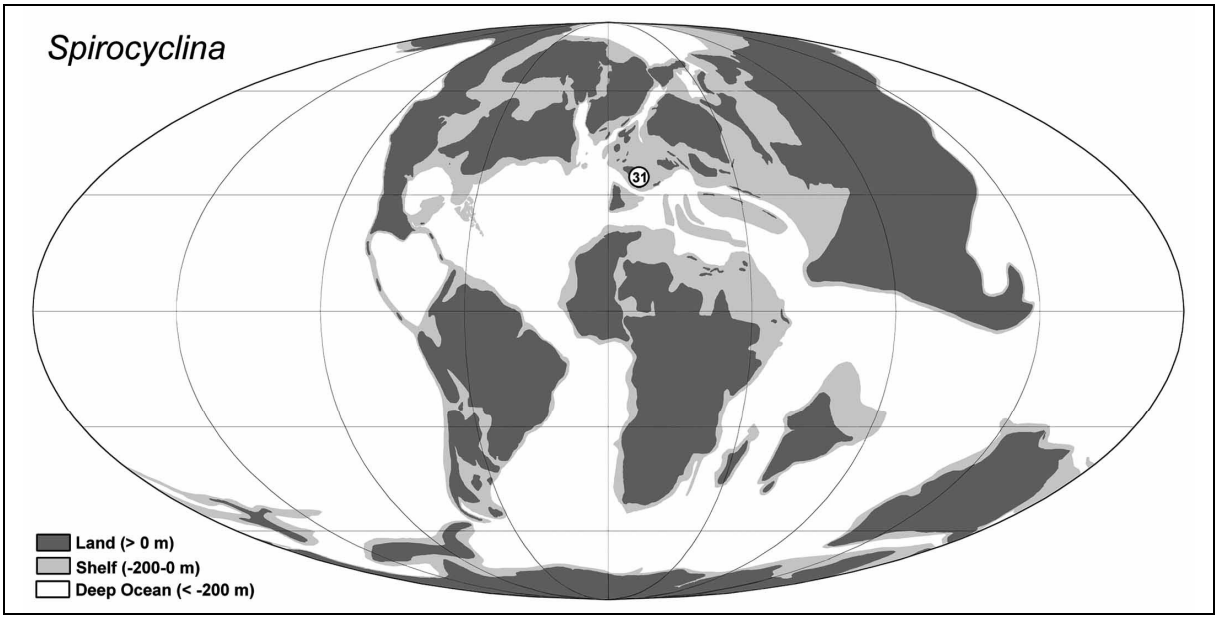

Figure 8.4: Global distribution of *Spirocyclina* in the Late Cretaceous

Spirocyclina is currently only known from France. Therefore it belongs to the "European Tethys" Faunal Province ranging from the Pyrenees to Marseille.

8.1.6 Remarks

The specimens of *Spirocyclina choffati* Munier-Chalmas documented by Schlumberger and Choffat (1904; pls. 9, 10) do not belong to the genus *Spirocyclina* and are therefore not included here. A detailed historical review of the genus *Spirocyclina* was presented by Maync (1959).

8.2 *Loftusia*

Suborder TEXTULARIINA Delage and Hérouard, 1896

Superfamily LOFTUSIACEA Brady, 1884

Family LOFTUSIIDAE Brady, 1884

Genus LOFTUSIA Brady, 1869

8.2.1 Description

Brady (in Carpenter and Brady, 1869) defined the new genus based on material from the Lower Tertiary of Iran. The age was later corrected by Douvillé (1904) in being Maastrichtian.

The test of *Loftusia* is ovoid to fusiform with an elongated axis of coiling. The length ranges between 2 mm and 120 mm, while the diameter varies from 1 mm to 42 mm (Meric and Görmüs, 2001). The test consists of up to 14 whorls, but differs from species to species. The septa of the chambers are distinctly curved. Further pillars can subdivide the chambers. The wall is agglutinated.

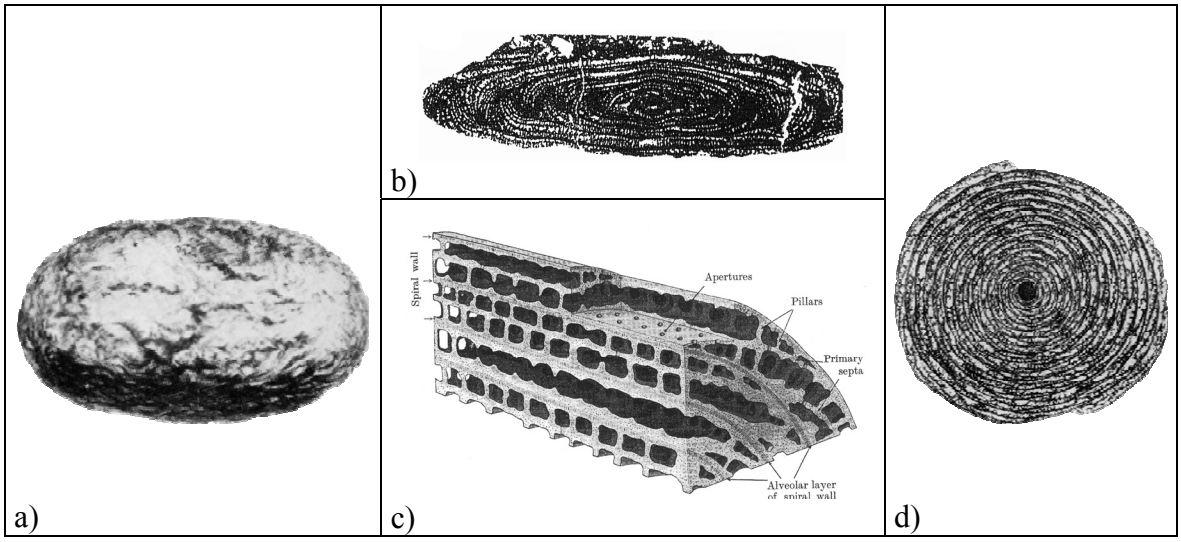

Figure 8.5: a), c), d) *L. persica* Brady, b) *L. minor* Cox; a), d) Carpenter and Brady, 1869, b) Meric et al., 2001, c) Cox, 1937

8.2.2 Species

Type species: *Loftusia persica* Brady, in Carpenter and Brady, 1869; p. 751; pl. 77, figs. 1-5; pl. 78, pl. 79, figs. 1-5; pl. 80, figs. 1-4

Synonyms: *Loftusia* Brady, in Carpenter and Brady, 1869; p. 751

Species: *L. anatolica* Meric, 1965[+]

L. arabica El-Asa'ad, 1989[+]

L. baykali Meric, 1965[+]

L. coxi Henson, 1948[+]

L. elongata Cox, 1937; p. 443; pl. 33, fig. 2; pl. 35, figs. 1,2

L. harrisoni Cox, 1937; p. 447; pl. 33, fig. 4; pl. 36, figs. 4-6

L. kahtaensis Meric, 1967[+]

L. ketini Meric, 1979[+]

L. matsumarui Meric and Görmüs, 2001; p. 44; pl. 9, figs. 8-13

L. minor Cox, 1937; p. 446; pl. 33, fig. 5; pl. 36, figs. 1-3

L. morgani Douvillé, 1904; p. 550[+]

L. occidentalis Milovanovich, 1938[+]

L. oktayi Meric, 1967[+]

L. persica Brady, 1869; p. 751; pl. 77, figs. 1-5; pl. 78; pl. 79, figs. 1-5, pl. 80, figs. 1-4

L. turcica Meric and Avsar, 1992[+]

8.2.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
SAU (22)				X	
OMN (23)			X	X	
QAT (24)				X	
YEM (25)				X	
SOM (26)				X	
IRQ (27)				X	
SYR (28)				X	
ITA (35)				X	
GRC (36)				X	
YUG (37)				X	
TUR (38)				X	
IRN (56)				X	?
MKD (60)		?	?	?	
HRV (62)		?	?	?	

Figure 8.6: Stratigraphic range of the genus *Loftusia* in its reported localities

The earliest stratigraphic report of *Loftusia* is from Oman (23; Abdelghany, 2003) with a Campanian age. The main occurrence is in the Maastrichtian. Meric and Görmüs (2001) and Meric et al. (2001) did a detailed analysis of the different species of *Loftusia* concerning their

age. Thus it became possible to use species of *Loftusia* for biozonation for the Maastrichtian in the Middle East:

Early Maastrichtian: *L. arabica*

Middle Maastrichtian: *L. coxi*, *L. elongata*, *L. harrisoni*, *L. ketini*, *L. matsumarui*, *L. minor*, *L. occidentalis*, *L. persica*, *L. turcica*

Late Maastrichtian: *L. anatolica*, *L. baykali*, *L. kahtaensis*, *L. morgani*, *L. oktayi*

There are also doubtful post-Cretaceous records from Iran (56). While Carpenter and Brady (1869) established the genus with a Lower Tertiary age, the record of Douvillé (1904) ought to have a Middle Lutetian age. Unfortunately the record of Douvillé (1904) cannot be verified by an illustration. From Macedonia (60; Meric and Görmüs, 2001; Meric et al., 2001) and Croatia (62; Meric et al., 2001) no stratigraphic age is given. It seems that the origination center of *Loftusia* is situated in Oman from which it dispersed to the entire eastern Tethys.

8.2.4 Biology

In Oman *Loftusia* is associated with *Orbitoides*, *Omphalocyclus*, and *Lepidorbitoides* (Abdelghany, 2003), in Iran with *Omphalocyclus* and *Orbitoides* (Cox, 1937), in Turkey with *Orbitoides*, *Siderolites*, *Omphalocyclus*, *Sirtina*, *Lepidorbitoides*, *Hellenocyclina* and *Laffitteina* (Özcan, 1993; Sirel, 1996; Özcan and Özkan-Altiner, 1997). The lithological occurrences of *Loftusia* vary between limestone, sandy limestone and sandstone. Both, lithology and faunal association, indicate a shallow-water environment from low to higher energetic setting. Meric and Görmüs (2001) argue for coastal and fore-reef environments, while Inan (1996a) interprets a back reef environment. These differences are based on observations from different species, but the morphology of *Loftusia* indicates that this genus is able to withstand high-energetic environmental conditions. In analogy to the environmental preferences of modern fusiform genera like *Alveolinella* or *Borelis* (Lipps and Severin, 1984; Severin and Lipps, 1989; Langer and Lipps, 2003) it appears plausible that *Loftusia* may have favored well-lit mostly oligotrophic conditions in reefal settings down to a depth of 30 meters.

8.2.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Loftusia* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Saudi-Arabia (22): Fleury et al., 1985; Meric and Görmüs, 2001; Meric et al., 2001

Oman (23): Cox, 1937; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001; Abdelghany, 2003

Qatar (24): Fleury et al., 1985; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001

Yemen (25): Fleury et al., 1985; Sartorio and Venturini, 1988; Fleury et al., 1990

Somalia (26): Fleury et al., 1985; Fleury et al., 1990

Iraq (27): Al-Omari and Sadek, 1976; Fleury et al., 1985; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001

Syria (28): Fleury et al., 1985; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001

Italy (35): Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001

Greece (36): Fleury et al., 1985; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001

Yugoslavia (37): Fleury et al., 1985; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001

Turkey (38): Fleury et al., 1985; Loeblich and Tappan, 1988; Fleury et al., 1990; Özcan, 1993; Inan, 1996a; Sirel, 1996; Meric et al., 1997; Özcan and Özkan-Altiner, 1997; Meric and Görmüs, 2001; Meric et al., 2001

Iran (56): Douvillé, 1904; Cox, 1937; Kalantari, 1976; Fleury et al., 1985; Loeblich and Tappan, 1988; Sartorio and Venturini, 1988; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001

Macedonia (60): Meric and Görmüs, 2001; Meric et al., 2001

Croatia (62): Meric et al., 2001

Southern Europe: Dilley, 1973

Old World and Mediterranean Tethys in particular: Dilley, 1971

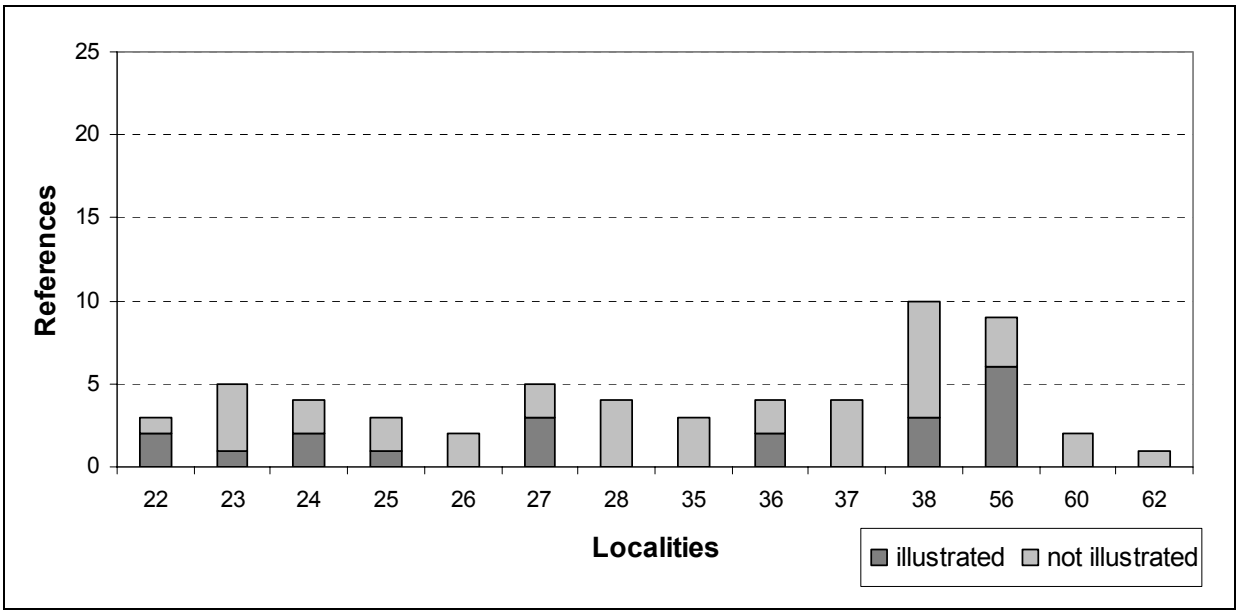

Figure 8.7: Number of illustrated and not illustrated references in the localities of *Loftusia*

For reasons of clarity in figure 8.8 the localities Yugoslavia (37) and Croatia (62) are put together to locality 84, and the localities Greece (36) and Macedonia (60) to locality 83.

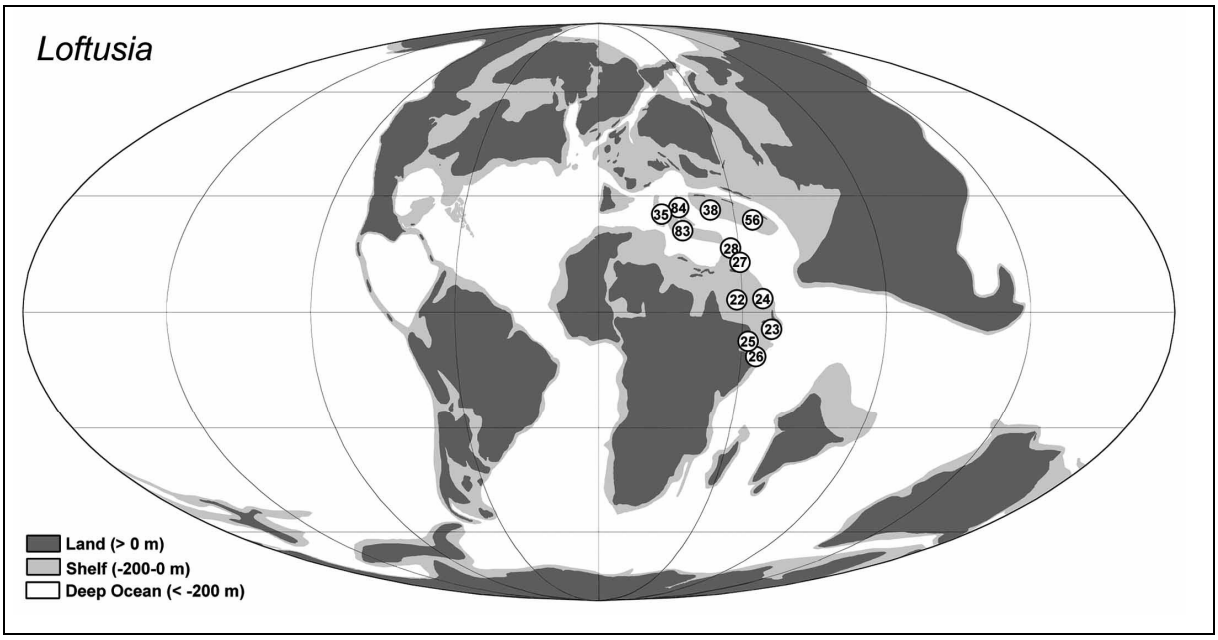

Figure 8.8: Global distribution of *Loftusia* in the Late Cretaceous

The genus *Loftusia* occurs in the Middle East and in the northeast of Africa. It is well documented from the region between Yugoslavia (37) and Iran (56) in the north and Oman (23) in the south. The occurrence in Syria (28; Fleury et al., 1985; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001) is not documented by an illustration, but as it lies in the

aforementioned region, the occurrence is well possible. The records from Italy (35; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001) and Somalia (26; Fleury et al., 1985; Fleury et al., 1990) are also not illustrated. These localities are lying marginal to the remaining distribution, to that their occurrence might be possible.

The distribution of *Loftusia* shows a superregional biogeographic pattern. It is present in the European and in the African Tethys.

8.2.6 Remarks

Loeblich and Tappan (1988) report *Loftusia* sp. from the Maastrichtian of Sumatra (47). As this is the only record outside the Middle East and northeast Africa, which is also not illustrated, the occurrence is not considered to be valid.

Dawson (1879) records *Loftusia columbiana* n. sp. from the Carboniferous of British Columbia, but the septa are perpendicular to the chamber wall, which does not occur in *Loftusia*. It is therefore disregarded here.

The illustration of *Loftusia* sp. (Figure 4e) recorded by Özcan (1993) cannot be identified as *Loftusia*.

8.3 *Cuneolina*

Suborder TEXTULARIINA Delage and Hérouard, 1896
Superfamily ATAXOPHRAGMIACEA Schwager, 1877
Family CUNEOLINIDAE Saidova, 1981
Subfamily CUNEOLININAE Saidova, 1981
Genus CUNEOLINA d'Orbigny, 1839

8.3.1 Description

D'Orbigny established the genus *Cuneolina* in 1839. The test of *Cuneolina* is conical to fan-shaped with a length of 1.0-1.6 mm and a breadth of around 1.45 mm. The chambers are low and broad with a biserial arrangement. They increase in length with growth and are divided into almost rectangular chamberlets. The wall is agglutinated.

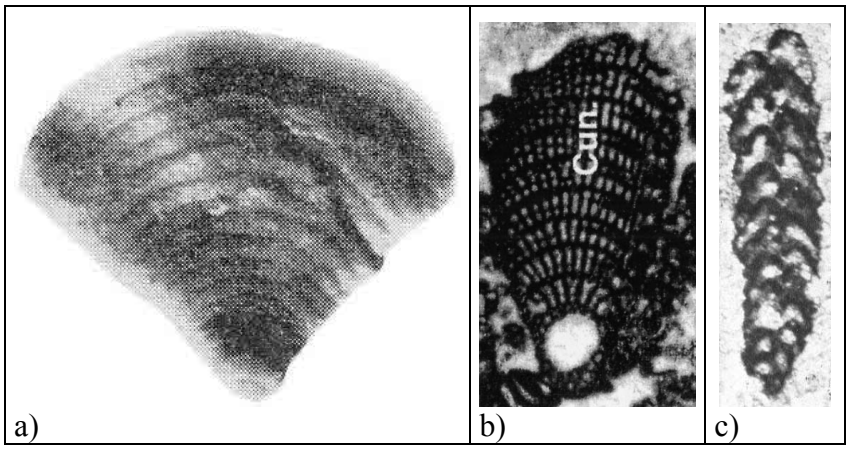

Figure 8.9: a) *C. conica* d'Orbigny, b), c) *C.* sp.; a) Gendrot, 1968, b) Landrein et al., 2001, c) Luperto Sinni and Ricchetti, 1978

8.3.2 Species

Type species: *Cuneolina pavonia* d'Orbigny, 1846^{+}
Synonyms: *Cuneolina* d'Orbigny, 1839^{+}
Species: *C. cylindrica* Henson, 1948^{+}
C. ketini Inan, 1988^{+}
C. pavonia d'Orbigny, 1846^{+}

8.3.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)		?	?	?	
S-MEX (3)	?				
IRQ (27)				X	
SYR (28)	X				
FRA (31)	X	X			
ESP (32)	X	X	X	X	
GER (33)	X				
ITA (35)	X	X	X	X	
GRC (36)	X	X	X	X	
YUG (37)	X		X	X	
TUR (38)	X	X	X	X	
KIR (49)			X		
LEB (54)	X				
IRN (56)	X				
CHN (73)	X				
JOR (75)	X				

Figure 8.10: Stratigraphic range of the genus *Cuneolina* in its reported localities

After Loeblich and Tappan (1988) the stratigraphical distribution of *Cuneolina* ranges from the Valanginian to the Coniacian, where it is reported from China, USA and Europe. Dilley (1973), however, speaks of an Albian to Maastrichtian distribution where it occurs in North and Central America, South Europe, North and West Africa and in the Middle East. In the Santonian *Cuneolina* is only reported from European localities between Spain (32; Hofker, 1967; Caus and Cornella, 1983; Caus, 1988; Gischler et al., 1994) and Turkey (38; Sari and Özer, 2002). In the Campanian the genus is also mentioned from the Line Islands (49; Premoli Silva and Brusa, 1981) and in the Maastrichtian from Iraq (27; Al-Omari and Sadek, 1976). There are no Paleogene records. With the prevailing data it is not possible to localize an origination center.

8.3.4 Biology

Cuneolina is often associated with specimens of the genera *Rhapydionina* and *Raadshoovenia* particularly in the eastern part of the Tethys, while an association with *Dictyopsella*, *Meandropsina*, *Siderolites*, *Orbitoides*, and *Omphalocyclus* is represented in the entire Tethyan area. The prefered habitat is mainly interpreted to be a shallow marine carbonate ramp (Azéma et al., 1979; Caus, 1988; Gischler et al., 1994). The presence of *Dictyopsella*, *Meandropsina,* and *Omphalocyclus* points to a protected environment with low water energy.

8.3.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Cuneolina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): *Brönnimann, 1954

Iraq (27): Al-Omari and Sadek, 1976

France (31): Gendrot, 1965; Gendrot, 1968

Spain (32): Hofker, 1967; *Azéma et al., 1979; Caus and Cornella, 1983; Caus 1988; Gischler et al., 1994

Italy (35): Luperto Sinni, 1968; Luperto Sinni, 1976; Luperto Sinni and Ricchetti, 1978; *Sartorio and Venturini, 1988; de Castro, 1990

Greece (36): Fleury and Godfriaux, 1974; Richter and Mariolakos, 1976; Zambetakis-Lekkas, 1988; Landrein et al., 2001

Yugoslavia (37): *Bignot, 1972; Gusic et al., 1988; Gusic and Jelaska, 1990

Turkey (38): Meric and Coruh, 1991; Inan, 1996a; Inan, 1996b; Sari and Özer, 2002

Line Islands (49): Premoli Silva and Brusa, 1981

N America, Central America, S Europe, N Africa, Middle East, W Africa: Dilley, 1973

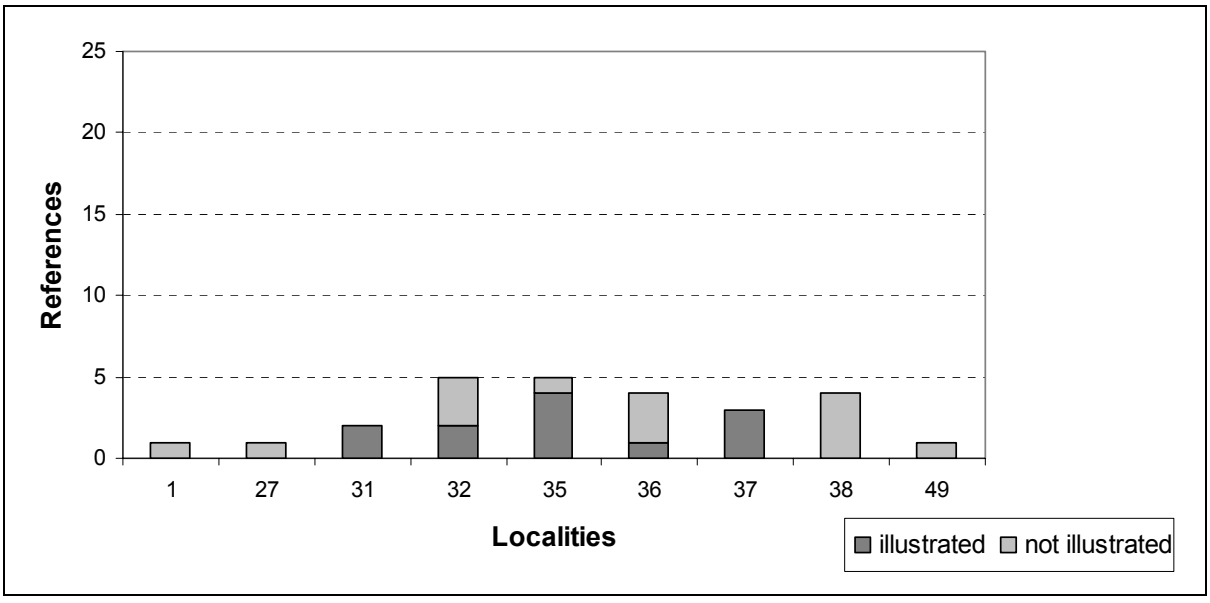

Figure 8.11: Number of illustrated and not illustrated references in the localities of *Cuneolina*

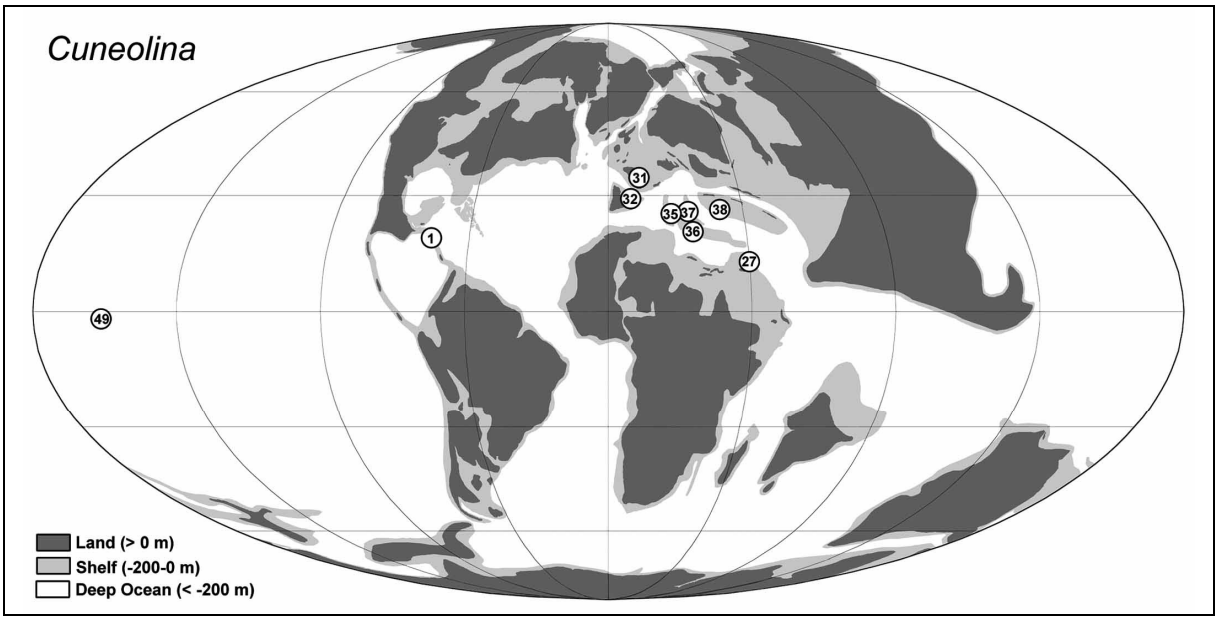

Figure 8.12: Global distribution of *Cuneolina* in the Late Cretaceous

In the Late Cretaceous *Cuneolina* was mainly distributed in the Tethyan area. It occurs in the region between France (31; Schlumberger, 1899; Gendrot, 1965, 1968), Spain (32; Schlumberger, 1899; Hofker, 1967; Azéma et al., 1979; Caus and Cornella, 1983; Caus, 1988; Gischler et al., 1994), Italy (35; Luperto Sinni, 1968, 1976; Luperto Sinni and Ricchetti, 1978; Sartorio and Venturini, 1988; de Castro, 1990), Turkey (38; Meric and Coruh, 1991; Inan, 1996a, 1996b; Sari and Özer, 2002) and Iraq (27; Al-Omari and Sadek, 1976), whereas the last two localities could not be verified by illustrations. It is also reported from Cuba (1; Brönnimann, 1954) and the Line Islands (49; Premoli Silva and Brusa, 1981). The distribution of *Cuneolina* is superregional-circumtropical.

8.3.6 Remarks

The records of *Cuneolina* from the Late Cretaceous of Cuba (1; Brönnimann, 1954) and the Campanian of the Line Islands (49; Premoli Silva and Brusa, 1981) are suspicious as all other records are restricted to the Tethyan area. Both reports cannot be verified by illustrations but appear to be valid (Hottinger, pers. com.). Similarly, the pre-Santonian record from Mexico (see table 3) requires further examination (see also Rosales Dominguez et al., 1994).

The Cuban record derives from a recent beach-sand, where *Cuneolina* sp. was found together with other late Cretaceous foraminifera [*Globotruncana stuarti* (de Lapparent), *Globotruncana lapparenti* s. l., *Vaughanina cubensis* Palmer, *Sulcoperculina dickersoni* (Palmer), *S. cubensis* (Palmer), *S. vermunti* (Thiadens), *Omphalocyclus macropora*

(Lamarck)], but also with Paleogene and Neogene foraminifera (*"Borelis" floridana* Cole, *"Borelis" gunteri* Cole, *Lockhartia* sp., *Dictyoconus* sp.). The exact stratigraphic horizon of this faunal association therefore requires further study.

The material from the Line Islands comes from the drill hole 315A (core 22). A Campanian age is given, but it is quite possible that it was contaminated by transported and reworked material.

Cuneolina has also been documented in unpublished reports of the exploration industry from the Caribbean area. The unpublished records may therefore extend the distributional range of this genus.

8.4 *Dictyopsella*

Suborder TEXTULARIINA Delage and Hérouard, 1896
Superfamily ATAXOPHRAGMIACEA Schwager, 1877
Family DICTYOPSELLIDAE Brönnimann, Zaninetti and Whittacker, 1983
Genus DICTYOPSELLA Munier-Chalmas, 1899

8.4.1 Description

The genus *Dictyopsella* was erected by Munier-Chalmas (in Schlumberger, 1899) based on material from Étang de Berre, southern France. The test of *Dictyopsella* is low conical and trochospiral. The diameter of the test ranges between 1.3 and 2.9 mm. The chambers are broad and low and are arranged in two or three whorls. The last whorl consists of about 10 chambers. On the spiral side of the test the chambers appear semilunate, on the umbilical side subtriangular. The chambers are divided by beams perpendicular to the septa. The wall is agglutinated.

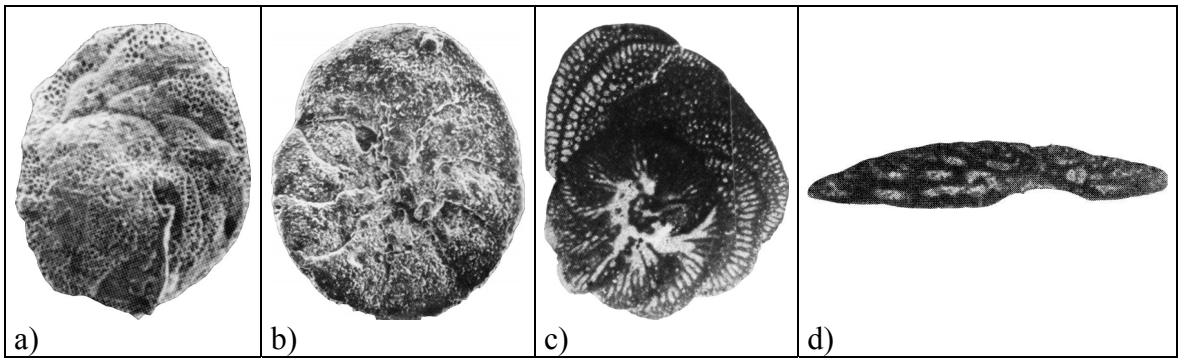

Figure 8.13: a), b), d) *D. kiliani* Munier-Chalmas, c) *D. muretae* Hottinger; a), c) Loeblich and Tappan, 1985, b) Loeblich and Tappan, 1988, d) Gendrot, 1968

8.4.2 Species

Type species: *Dictyopsella kiliani* Munier-Chalmas, in Schlumberger, 1899; p. 462; pl. 8, figs. 5, 7; pl. 11, fig. 20

Synonyms: *Dictyopsella* Munier-Chalmas, in Schlumberger, 1899; p. 462

Species: *D. chalmasi* Schlumberger, 1899; p. 463; pl. 8, fig. 4

D. charentensis Loeblich and Tappan, 1985; p. 179; pl. 1, figs. 9-11; pl. 2, figs. 1-9; fig. 1

D. hofkeri Loeblich and Tappan, 1985; p. 181; pl. 3, figs. 1-10; fig. 2

D. kiliani Munier-Chalmas, in Schlumberger, 1899; p. 462; pl. 8, figs. 5, 7; pl. 11, fig. 20

D. libanica Saint-Marc, 1973; p. 410; pl. 1, figs. 1-20; pl. 2, figs. 1-25

D. muretae Hottinger, 1967^{+}

D. tenuissima Reuss, 1862^{+}

8.4.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
LEB (54)	X				
SYR (28)	X				
BEL (30)			X	X	
NLD (57)				X	
FRA (31)	X	X	X	X	
ESP (32)	X	X	X	X	
ITA (35)	X	X			
POR (39)		X			
HRV (62)			X		

Figure 8.14: Stratigraphic range of the genus *Dictyopsella* in its reported localities

The first occurrence of *Dictyopsella* is reported from the Albian to lower Cenomanian sedimentary deposits of Syria (28; Mouty et al., 2003) with the species *D.* cf. *libanica* Saint-Marc and from the lower Cenomanian of Lebanon (54; Saint-Marc, 1973) with the species *D. libanica* Saint-Marc. Other Cenomanian individuals are also reported from France and Spain (31, 32; Loeblich and Tappan, 1988). From the Santonian to the Maastrichtian *Dictyopsella* is only known from European localities, whereas in the Santonian the genus is concentrated to the regions Portugal (39; Bonte, 1942), Spain (32; Bonte, 1942; Caus and Cornella, 1983; Loeblich and Tappan, 1985; Caus, 1988), France (31; Gendrot, 1965, 1968; Séronie-Vivien, 1972; Loeblich and Tappan, 1985) and Italy (35; Luperto Sinni, 1966, 1968, 1976; Luperto Sinni and Ricchetti, 1978). In the Campanian *Dictyopsella* was found also in France, Spain, Croatia (62; Gusic et al., 1988; Gusic and Jelaska, 1990) and Belgium (30; Bignot and Neumann, 1997). *Dictyopsella* from Maastrichtian sediments are known from Belgium, the Netherlands (57; Hofker, 1966), France and Spain. There are no records of *Dictyopsella* that are younger than Maastrichtian. The Albian records of Syria point to an origin in the eastern Tethys.

8.4.4 Biology

In nearly all analyzed locations *Dictyopsella* is associated with *Nummofallotia* and *Cuneolina*. Other commonly associated larger foraminifera are *Siderolites*, *Orbitoides* and *Meandropsina*. *Dictyopsella* probably lived in the upper photic zone (Hottinger, 1997) in protected peri-reefal areas (Saint-Marc, 1973; Luperto Sinni and Ricchetti, 1978; Caus, 1988) at moderate depths down to 60 m (Caus, 1988).

8.4.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous individuals of *Dictyopsella* were found at the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Belgium (30): Hofker, 1966; Bignot and Neumann, 1997

France (31): Gendrot, 1965; Gendrot, 1968; Séronie-Vivien, 1972; Loeblich and Tappan, 1985; Loeblich and Tappan, 1988; *Marie, unpubl.

Spain (32): Schlumberger, 1899; Bonte, 1942; Hottinger, 1966; Hofker, 1967; Caus and Cornella, 1983; Caus and Vicens, 1984; Loeblich and Tappan, 1985; Caus, 1988; Loeblich and Tappan, 1988

Italy (35): Luperto Sinni, 1966; *Luperto Sinni, 1968; Luperto Sinni, 1976; Luperto Sinni and Ricchetti, 1978

Portugal (39): Bonte, 1942

Netherlands (57): Hofker, 1966

Croatia (62): Gusic et al., 1988; Gusic and Jelaska, 1990

Western Tethys: Fleury et al., 1985

Southern Europe, Middle East: Dilley, 1973

Tethys: Hottinger, 1997

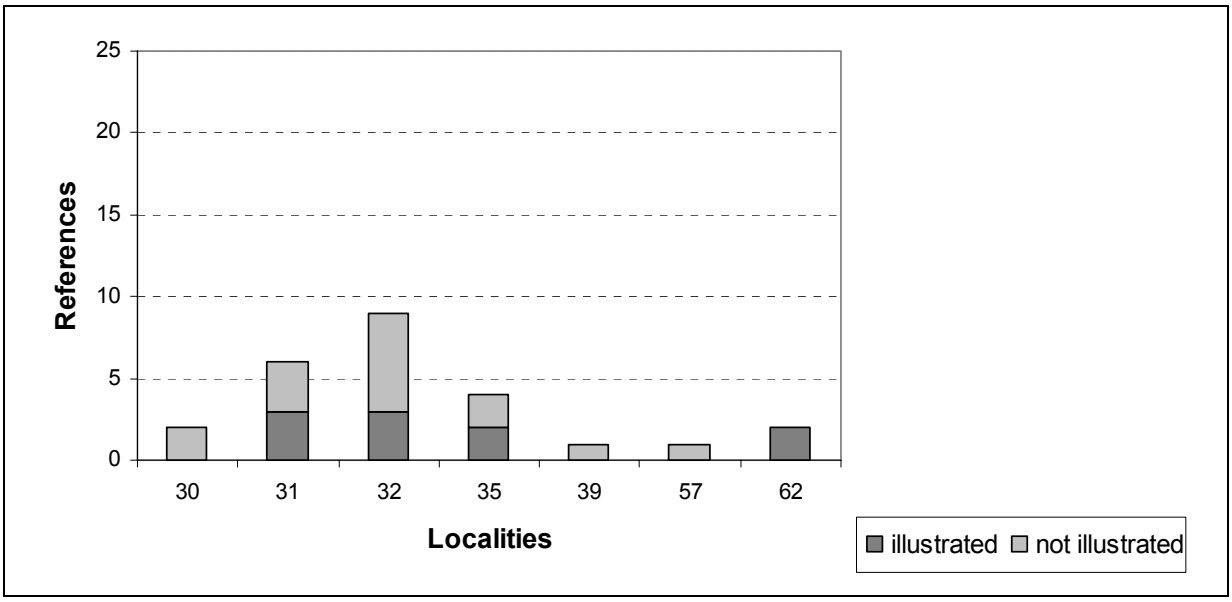

Figure 8.15: Number of illustrated and not illustrated references in the localities of *Dictyopsella*

In the illustration of the biogeographic distribution of *Dictyopsella* (Figure 8.16) the locations from Belgium (30) and the Netherlands (57) are plotted together in location 80 for reasons of clarity.

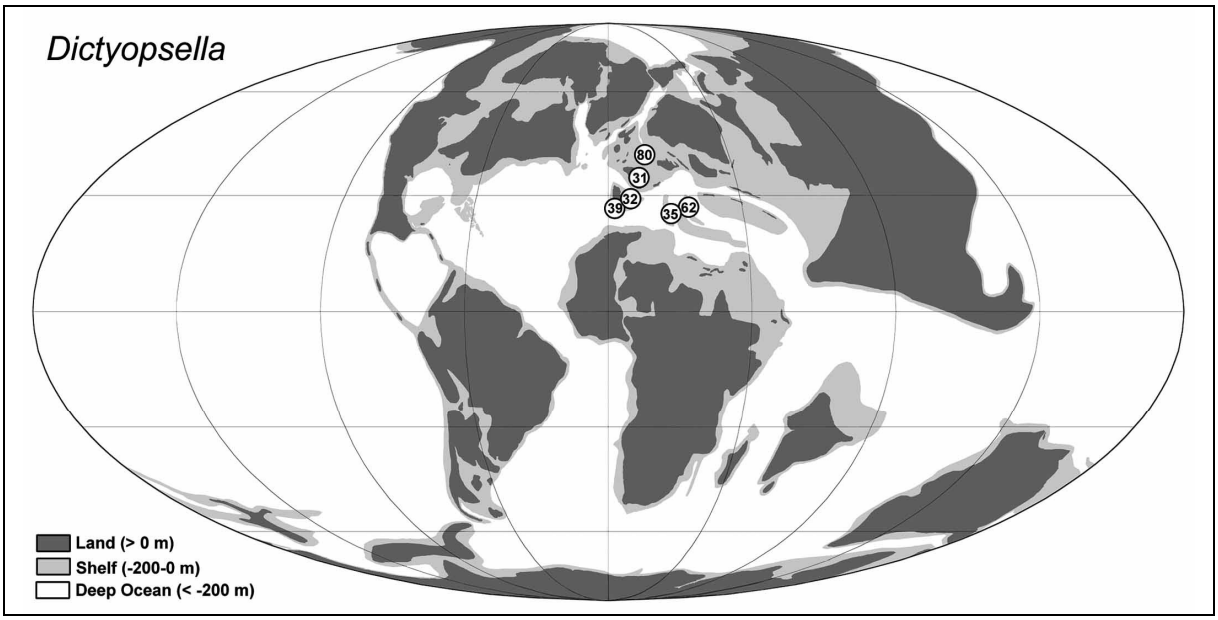

Figure 8.16: Global distribution of *Dictyopsella* in the Late Cretaceous

In the time slice under consideration *Dictyopsella* only occurs in the European Tethys. The distribution is divided into a western region, comprising the Netherlands (57), Belgium (30), France (31), Spain (32) and Portugal (39), and an eastern region around Italy (35) and Croatia (62). It is remarkable that in the Maastrichtian the distribution of *Dictyopsella* is concentrated

in the western European Tethys (Belgium, the Netherlands, France, and Spain). In Italy, the genus occurs until the Santonian, whereas in Croatia there are only records of Campanian age. The reason for this distribution is not yet clarified, but can probably be solved with a detailed analysis of the particular regions.

8.4.6 Remarks

Dictyopsella cuvillieri Gendrot, 1968 is the type species of *Dictyopselloides* Loeblich and Tappan, 1985.

8.5 *Lacazina*

Suborder MILIOLINA Delage and Hérouard, 1896

Superfamily ALVEOLINACEA Ehrenberg, 1839

Family FABULARIIDAE Ehrenberg, 1839

Genus LACAZINA Munier-Chalmas, 1882

8.5.1 Description

Munier-Chalmas established the genus *Lacazina* in the year 1882, based on Senonian material from France and Spain.

The test of *Lacazina* is discoidal to elongate globular. The diameter is up to 10 mm (Loeblich and Tappan 1988). The chambers are biloculine arranged. The interior of the chambers is divided into numerous chamberlets. The wall is porcelaneous. Initially the elongate forms were considered to belong to the genus *Alveolina* (d'Orbigny, 1850).

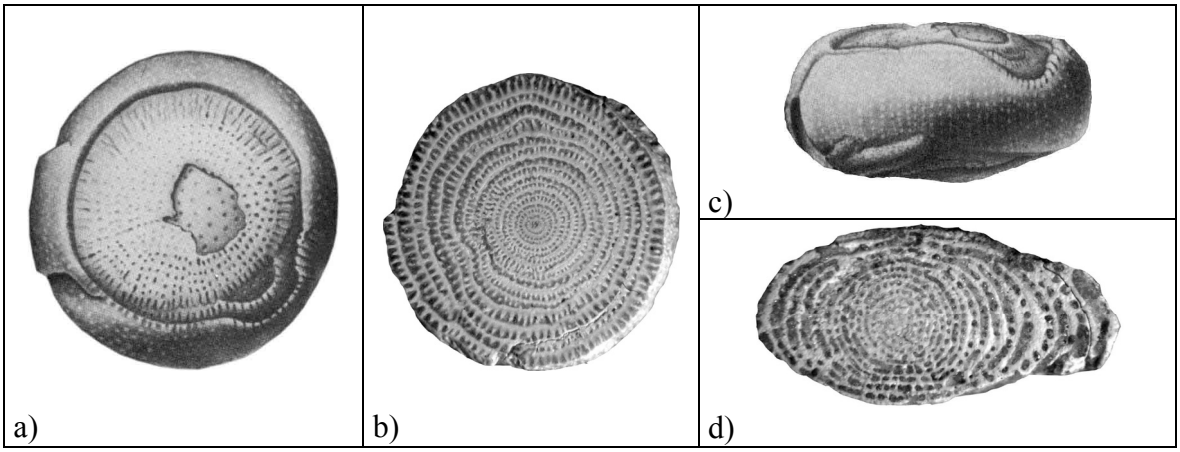

Figure 8.17: a), c) *L. compressa* (d'Orbigny), b), d) *L.* sp.; a), c) Loeblich and Tappan, 1964, b), d) Goldbeck

8.5.2 Species

Type species: *Alveolina compressa* d'Orbigny, 1850[+]

Synonyms: *Lacazina* Munier-Chalmas, 1882; p. 472[+]

Species: *L. cantabrica*[+]

L. compressa (d'Orbigny, 1850)[+]

L. depressa Schlumberger[+]

L. elongata Munier-Chalmas, 1885[+]

8.5.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
FRA (31)		X	X		
ESP (32)		X	X		
GRC (36)					X
ISR (53)		?	?	?	
Sa-ITA (72)		X			

Figure 8.18: Stratigraphic range of the genus *Lacazina* in its reported localities

The stratigraphic range of *Lacazina* is from the Coniacian to the Middle to Late Paleocene (Hottinger, 1997). In the Senonian it is reported from France (31; Hottinger, 1966; Loeblich and Tappan, 1988), Spain (32; Hottinger, 1966; Azéma et al., 1979) and from Israel (53; Loeblich and Tappan, 1988). Santonian records exist from France (31; Gendrot, 1965; Fleury et al., 1985), Spain (32; Caus and Hottinger, 1986; Caus, 1988; Caus et al., 1996) and from Sardinia (72; Fleury et al., 1985; Hottinger et al., 1989). In the Campanian *Lacazina* is reported from France (31) and Spain (32). From the Maastrichtian no detailed localities are reported, only Dilley (1973) reports *Lacazina* from the Maastrichtian of Southern Europe. *Lacazina* originated in the western part of the Tethys in the area between France, Spain and Sardinia.

8.5.4 Biology

In the reported localities *Lacazina* is associated with individuals of the genera *Cuneolina*, *Orbitoides*, *Dictyopsella*, *Nummofallotia*, and *Meandropsina*.

Lacazina occurs in the upper photic zone in protected areas (Hottinger, 1966; Caus, 1988). This genus displays a distinct change in morphology with depth. The short large form *L. compressa* appears at depths to around 40 m, whereas with increasing depth from 40 to 80 m it is replaced by the smaller elongate *L. elongata* (Hottinger, 1966; Caus, 1988). *Lacazina compressa* seems to prefer an environment of high water energy and hard substrate, while *L. elongata* occurs in regions of low water energy on soft substrate (Hottinger, 1983). It may well be that species of this genus lived within algal turfs or even as epiphytes on algal thalli.

8.5.5 Biogeographic distribution and Faunal Province

From the Santonian to the Maastrichtian individuals of the genus *Lacazina* were found in the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

France (31): Gendrot, 1965; *Hottinger, 1966; Fleury et al., 1985; *Loeblich and Tappan, 1988; Hottinger et al., 1989; Caus et al., 1996

Spain (32): Schlumberger, 1899; Hottinger, 1966; Hofker, 1967; *Azéma et al., 1979; Fleury et al., 1985; Caus and Hottinger, 1986; Caus, 1988; Loeblich and Tappan, 1988; *Hottinger et al., 1989; Gischler et al., 1994; Caus et al., 1996

Sardinia (72): Fleury et al., 1985; *Hottinger et al., 1989

Confined to Europe or to northern Africa: *Dilley, 1971

Southern Europe: Dilley, 1973

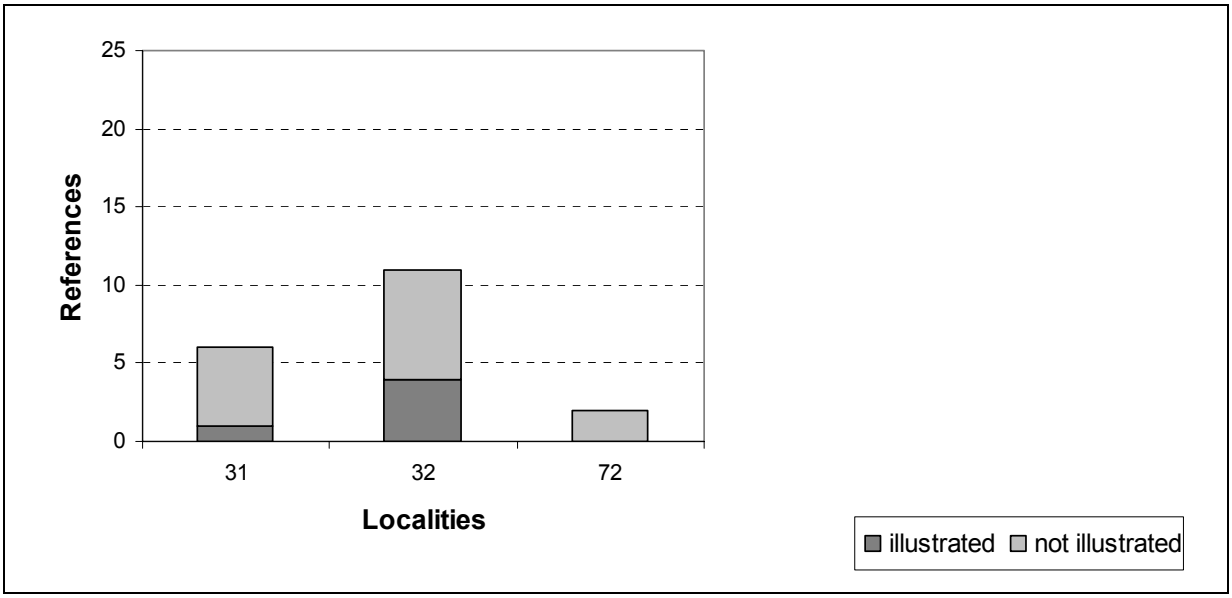

Figure 8.19: Number of illustrated and not illustrated references in the localities of *Lacazina*

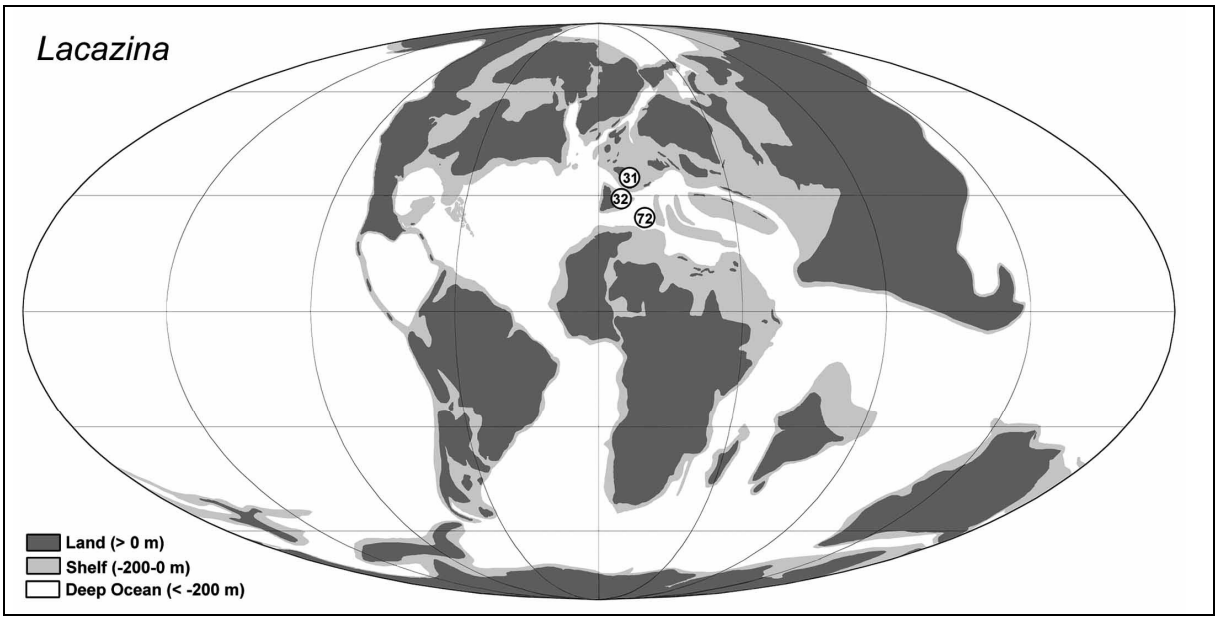

Figure 8.20: Global distribution of *Lacazina* in the Late Cretaceous

In the Late Cretaceous *Lacazina* exhibits a distinct regional distribution pattern. It occurs in France (31; Gendrot, 1965; Fleury et al., 1985; Hottinger et al., 1989; Caus et al., 1996), Spain (32; Schlumberger, 1899; Hottinger, 1966; Hofker, 1967; Fleury et al., 1985; Caus and Hottinger, 1986; Caus, 1988; Loeblich and Tappan, 1988; Gischler et al., 1994; Caus et al., 1996) and Sardinia (72; Fleury et al., 1985). Further it is reported from the Senonian of Israel (53; Loeblich and Tappan, 1988) but as this record is not illustrated it must be handled with care until more evidence is provided.

8.5.6 Remarks

Yabe and Hanzawa (1931) quote Silvestri (1925) who reports *Lacazina lamellifera* Silvestri from the Upper Cretaceous of Sumatra. But they doubt the result because the morphology of the figured foraminifera is significantly different. They also question the Cretaceous age, and it is therefore not regarded here.

Yabe and Hanzawa (1931) reported ?*Lacazina wichmanni* Schlumberger from the ?Late Cretaceous and ?Eocene of New Guinea in association with several Eocene foraminifera. These records cannot be verified by illustrations, and therefore remain doubtful. In 1962, Crespin established a new genus, *Lacazinella* with the type species *Lacazina wichmanni* Schlumberger. *Lacazinella* differs from *Lacazina* in its prolate form, the completely embracing chambers and by the existence of longitudinal perforate ribs in the endoskeleton. After Crespin (1962) *Lacazina elongata* Munier-Chalmas from the Santonian of Spain does

belong to *Lacazinella*. It is possible that also the species reported by Yabe and Hanzawa (1931) must be added to *Lacazinella* Crespin.

Bilotte (1978) considers similar porcelaneous taxa that have an agglutinated cover to belong to a separate genus, which he named *Adrahentina*. However, many porcelaneous species often incorporate sediment particles in their wall. The erection of a new genus based on this character alone is therefore not justified. The species of *Adrahentina* identified by Bilotte (1978) are therefore considered to be true Lacazinas. In addition the Maastrichtian age given by Bilotte for *Adrahentina* may in fact be older than Campanian (Caus and Vicens, 1984).

8.6 *Chubbina*

Suborder MILIOLINA Delage and Hérouard, 1896
Superfamily ALVEOLINACEA Ehrenberg, 1839
Family RHAPYDIONINIDAE Keijzer, 1945
Subfamily RHAPYDIONININAE Keijzer, 1945
Genus CHUBBINA Robinson, 1968

8.6.1 Description

Robinson established the genus *Chubbina* in 1968 relating to Jamaican material. The genus name was given in appreciation to Dr. Chubb, who worked extensively on Cretaceous material from the Caribbean region.
The test of Chubbina is peneropline reaching up to 8 mm in diameter and 1.5 mm in thickness (Loeblich and Tappan, 1988). The chambers are subdivided by numerous septula, which are arranged parallel and perpendicular to the direction of growth, resulting in nearly rounded chamberlets. The wall is calcareous, porcelaneous. The openings of the multiple aperture are scattered over the apertural face.

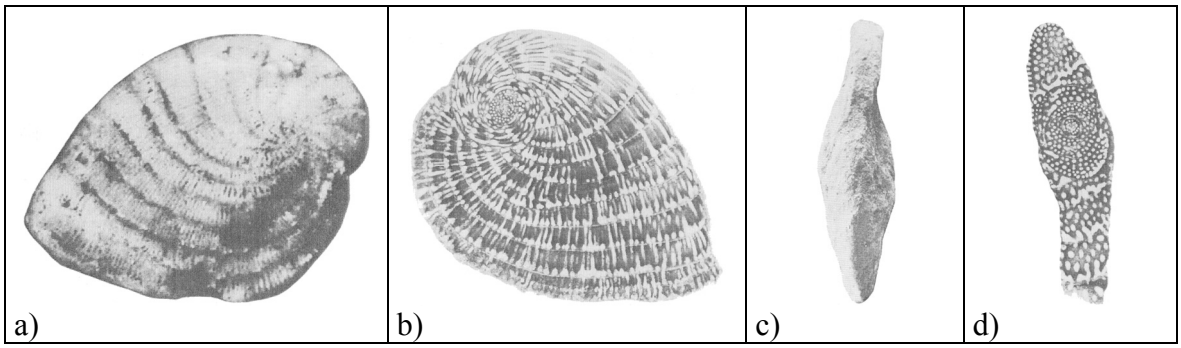

Figure 8.21: a) - d) *C. jamaicensis* Robinson; a), b), d) Robinson, 1968, c) Hamaoui and Fourcade, 1973

8.6.2 Species

Type species: *Chubbina jamaicensis* Robinson, 1968; p. 527; pl. 101, figs. 1-6; pl. 102, figs. 1-5

Synonyms: *Chubbina* Robinson, 1968; p. 527[+]
Borelis cardenasensis Barker and Grimsdale, 1937; p. 173; pl. 173, figs. 1-5

Species: *C. cardenasensis* (Barker and Grimsdale, 1937), p. 529[+]

C. jamaicensis Robinson, 1968, p. 527, pls. 101(1-6), 102(1-5)

C. macgillavryi Robinson, 1968; p. 529; pl. 102, fig. 8; pl. 103, figs. 3, 4; pl. 102, figs. 6, 7

8.6.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)			X	X	
F-USA (2)			X	X	
S-MEX (3)			X	X	
JAM (6)			X	X	
MEXu			X	X	

Figure 8.22: Stratigraphic range of the genus *Chubbina* in its reported localities

In the Caribbean region *Chubbina* occurs in Campanian and Maastrichtian outcrops in Cuba (1; Dilley, 1973; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988), Florida (2; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988), Chiapas (3; Robinson, 1968; Dilley, 1973) and Jamaica (6; Robinson, 1968; Dilley, 1973; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988). As the first occurrence of *Chubbina* is in the Caribbean, it probably represents the center of origin of this species.

8.6.4 Biology

From the Campanian-Maastrichtian of S-Mexico *Chubbina* is reported together with *Orbitoides*, *Vaughanina*, *Sulcoperculina* in sandy marls and micritic limestones and with *Sulcoperculina* and *Pseudorbitoides* in gray and white limestones (Pécheux, 1984).

Based on the associated fauna and other information from the Caribbean the preferred habitat of *Chubbina* is interpreted as a shallow shelf or lagoonal environment (Robinson, 1968; Hamaoui and Fourcade, 1973). Eva (1980) interprets *Chubbina* as being a seagrass-dweller comparable to modern peneroplid morphotypes (Langer, 1993). Seagrasses have been around since the Cretaceous (den Hartog, 1970) but peneroplid forms are also frequent epiphytes on various types of algae (Langer, 1993).

8.6.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Chubbina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): Dilley, 1973; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988

Florida (2): Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988

Tuxtla Guttierez (3): Robinson, 1968; Dilley, 1973; Pécheux, 1984; Rosalez Dominguez et al., 1994

Jamaica (6): Robinson, 1968; Dilley, 1973; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988

Mexico (68): Hamaoui and Fourcade, 1973; Butterlin, 1981; Loeblich and Tappan, 1988

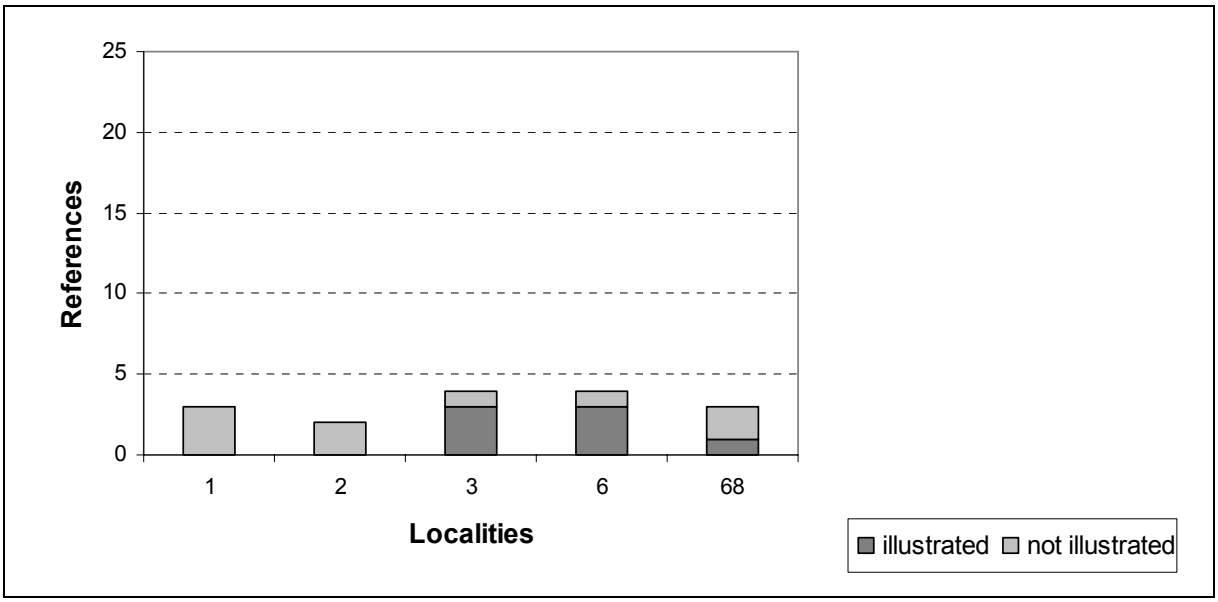

Figure 8.23: Number of illustrated and not illustrated references in the localities of *Chubbina*

For reasons of clarity, the localities 3 (S-Mexico) and 68 (Mexico undifferentiated) in figure 8.24 were plotted together in locality 68.

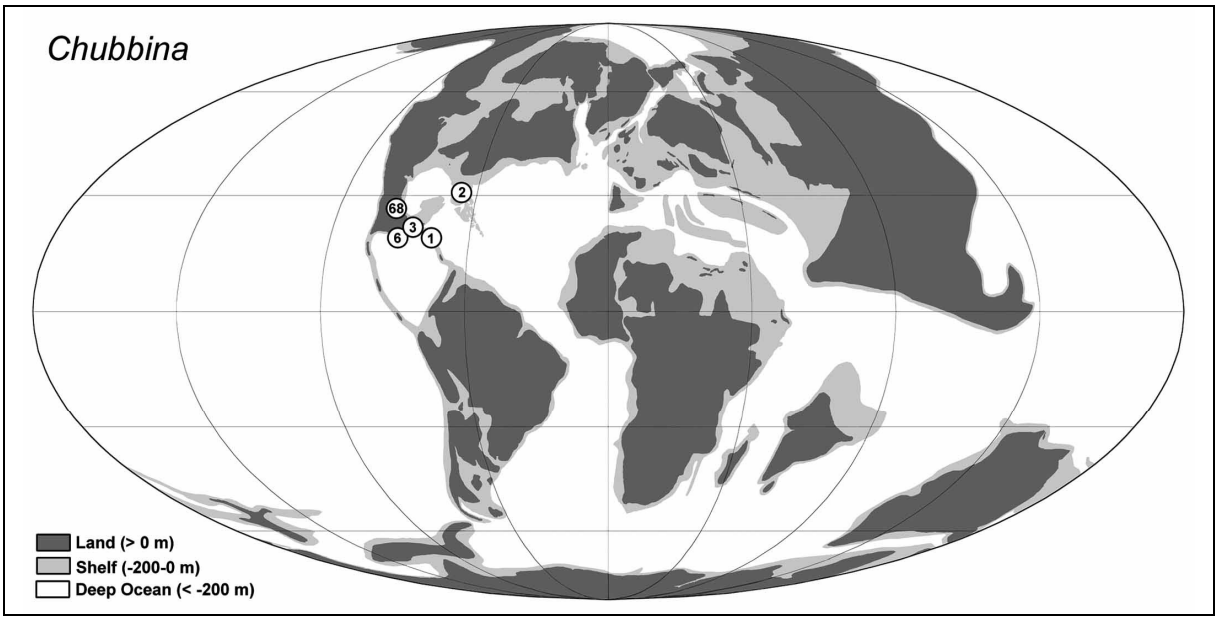

Figure 8.24: Global distribution of *Chubbina* in the Late Cretaceous

The genus *Chubbina* is restricted to the northern part of the Caribbean region. It occurs between Florida (2; Hamaoui and Fourcade 1973; Loeblich and Tappan 1988), Mexico (76; Hamaoui and Fourcade 1973; Butterlin 1981; Loeblich and Tappan 1988) and Jamaica (6; Robinson 1968; Dilley 1973; Hamaoui and Fourcade 1973; Loeblich and Tappan 1988).

8.6.6 Remarks

In 1977, Fleury reported a new species, ?*Chubbina philippsoni*, from the Late Cretaceous of Greece, but he has explicitely marked the genus as uncertain. In 1990, de Castro reanalyzed the greek form and found distinct differences that justified the erection of a new genus *Pseudochubbina*, to which he added ?*Chubbina philippsoni.* The record from Greece is therefore not regarded to be valid.

8.7 *Pseudedomia*

Suborder MILIOLINA Delage and Hérouard, 1896
Superfamily ALVEOLINACEA Ehrenberg, 1839
Family RHAPYDIONINIDAE Keijzer, 1945
Subfamily RHAPYDIONINIAE Keijzer, 1945
Genus PSEUDEDOMIA Henson, 1948

8.7.1 Description

In 1948, Henson established the genus *Pseudedomia*, based on Maastrichtian material from Qatar. *Pseudedomia* has a porcelaneous lenticular test with an arcuated periphery. It is planispiral and involute but the number of whorls depends on the species. The diameter is up to 3.5 mm (Loeblich and Tappan, 1988). In axial view the chambers show a thickening of the inner wall from which small pillars arises forming small chamberlets. The number of chambers in the last whorl differs specifically.

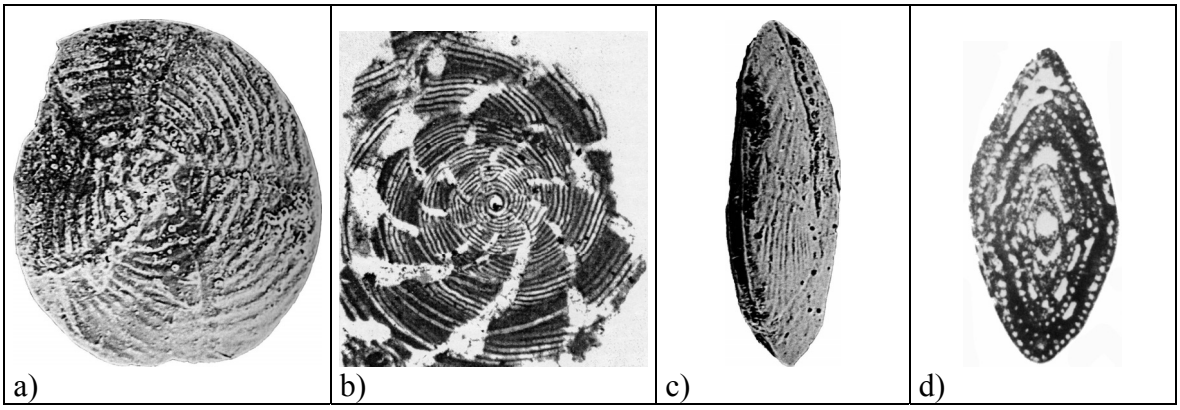

Figure 8.25: a), c) *P. hekimhanensis* Görmüs, b) *P.* cf. *hamaouii* Rahaghi, d) *P. complanata* Eames and Smout; a), c) Görmüs, 1999, b) de Castro, 1988, d) Loeblich and Tappan, 1988

8.7.2 Species

Type species: *Pseudedomia multistriata* Henson, 1948[+]
Synonyms: *Pseudedomia* Henson, 1948[+]
Species: *P. complanata* Eames and Smout, 1955[+]
P. hamaouii Rahaghi, 1976; pl. 1, figs. 1-11
P. hekimhanensis Görmüs, 1996; p. 12; pl. 1, figs. 1-3

P. multistriata Henson, 1948[+]

P. persica Rahaghi, 1989; p. 181; pl. 3, figs. 1-8

8.7.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
DZA (16)	X				
TUN (17)	X	X	X	X	
QAT (24)	X	X	X	X	
IRQ (27)	X	X	X	X	
SYR (28)	X				
ESP (32)				X	
ITA (35)	X	X	X	X	
GRC (36)	X	X	X	X	
YUG (37)	X	X	X	X	
TUR (38)	X		X	X	
POR (39)	X	X	X	X	
ISR (53)	X	X	X	X	
LEB (54)	X	X	X	X	
KWP (55)	X	X	X	X	
IRN (56)		X	X		
ARE (66)			X	X	

Figure 8.26: Stratigraphic range of the genus *Pseudedomia* in its reported localities

Pseudedomia has been reported from the Cenomanian of Algeria (16; Hamaoui and Fourcade, 1973). Loeblich and Tappan (1988) cite *Pseudedomia* sp. from the Cenomanian to Maastrichtian of Qatar, Kuwait, Tunisia, Lebanon, Iraq, Israel, Italy, Portugal, Yugoslavia, and Greece without a detailed stratigraphic affiliation. From the Santonian to the Maastrichtian it is distributed in the Tethyan region between Portugal (39; *P.* sp., without illustration), Spain (32; without illustration), Turkey (38), Kuwait (55), and Qatar (24). There are no Paleogene records of this genus. Because of its numerous occurrences in the Pre-Santonian an origination center cannot be identified.

8.7.4 Biology

Mavrikas et al. (1994) are of the opinion that *Loftusia* and *Pseudedomia* have shared the same ecological niche, while (Brasier, 1975 in Eva, 1980) suggests that *Pseudedomia* is a seagrass-adapted form. The species *Pseudedomia* aff. *multistriata* is reported to have lived together with specimens of the genera *Siderolites*, *Orbitoides*, *Lepidorbitoides*, *Hellenocyclina*, and *Sirtina* on the external platform (Mavrikas et al., 1994). Another species, *Pseudedomia* cf.

multistriata Henson, has been reported from reefal outcrops of Greece with *Orbitoides*, *Loftusia*, *Sirtina*, *Siderolites*, *Clypeorbis*, *Nummofallotia* and *Rhapydionina*. This indicates a lagoonal or backreefal paleoenvironment (Mavrikas et al., 1994 in Görmüs, 1999). The lithofacies and faunal associations of *P. hekimhanensis* hints to an even more restricted lagoonal setting than *P. multistriata* (Görmüs, 1999).

8.7.5 Biogeographic distribution and Faunal Province

In the time from the Santonian to the Maastrichtian individuals of the genus *Pseudedomia* were found in the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Tunisia (17): Loeblich and Tappan, 1988

Qatar (24): Hamaoui and Fourcade, 1973; Fleury et al., 1985; Loeblich and Tappan, 1988; Görmüs, 1999

Iraq (27): Fleury et al., 1985; Loeblich and Tappan, 1988

Spain (32): Görmüs, 1999

Italy (35): Loeblich and Tappan, 1988

Greece (36): Loeblich and Tappan, 1988; Mavrikas et al., 1994; Görmüs, 1999

Yugoslavia (37): Loeblich and Tappan, 1988

Turkey (38): Görmüs, 1996; Görmüs, 1999

Portugal (39): Loeblich and Tappan, 1988

Israel (53): Loeblich and Tappan, 1988

Lebanon (54): Loeblich and Tappan, 1988

Kuwait (55): Fleury et al., 1985; Loeblich and Tappan, 1988; Görmüs, 1999

Iran (56): Rahaghi, 1976; Fleury et al., 1985; Rahaghi, 1989; Görmüs, 1999

United Arab Emirates (66): de Castro, 1988

Southern Europe: *Dilley, 1971

Middle East: *Dilley, 1971; Dilley, 1973

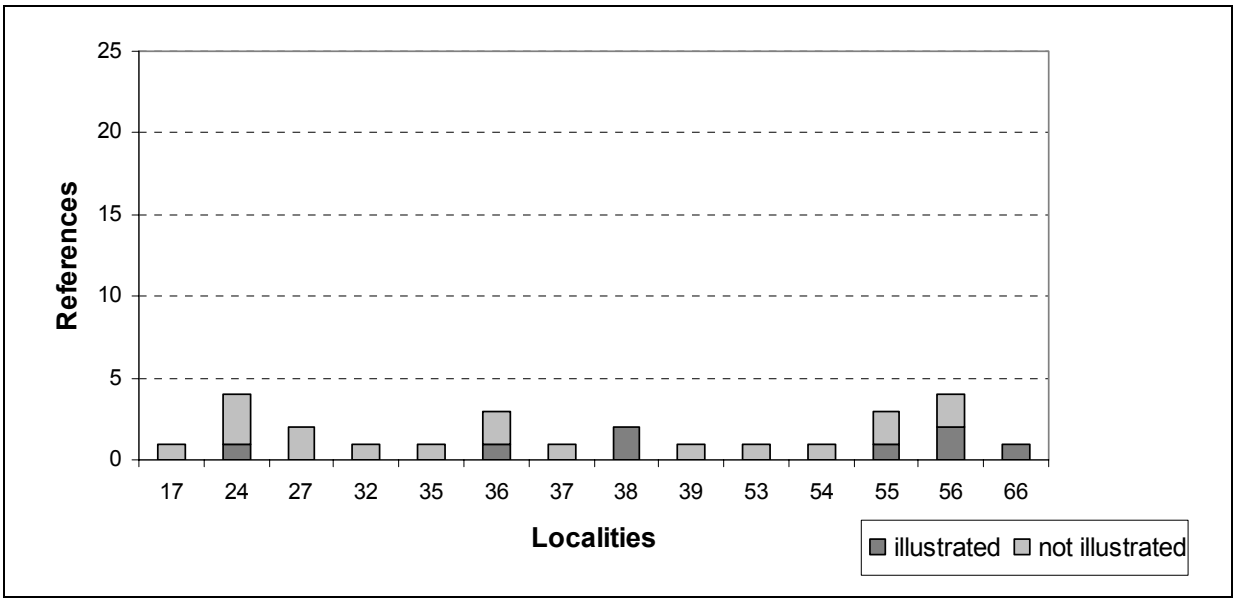

Figure 8.27: Number of illustrated and not illustrated references in the localities of *Pseudedomia*

The localities Israel (53) and Lebanon (54) are drawn together in location 81 in figure 8.28.

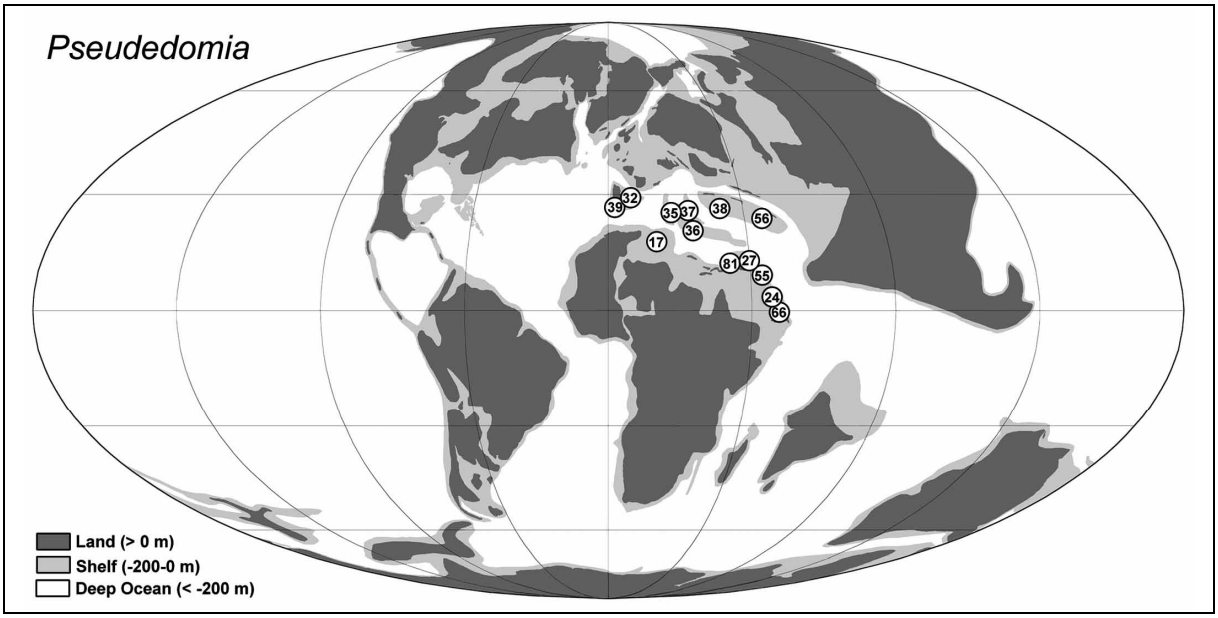

Figure 8.28: Global distribution of *Pseudedomia* in the Late Cretaceous

In the Late Cretaceous *Pseudedomia* shows a superregional distribution within the Tethyan Ocean. It is known from southern Europe and northern Africa. It occurs from the western part of the European Tethys (Portugal: 39; Loeblich and Tappan, 1988; Spain: 32; Görmüs, 1999) all the way to the east till Qatar and the United Arab Emirates (Italy: 35; Loeblich and Tappan, 1988; Tunisia: 17; Loeblich and Tappan, 1988; Greece: 36; Loeblich and Tappan, 1988; Mavrikas et al., 1994; Görmüs, 1999; Qatar: 24; Hamaoui and Fourcade, 1973; Fleury

et al., 1985; Loeblich and Tappan, 1988; Görmüs, 1999; United Arab Emirates: 66; de Castro, 1988). Unfortunately no record of the western part of the Tethys can be verified by an illustration. These locations require further studies.

8.7.6 Remarks

In 1990, de Castro established a new genus, *Pseudochubbina*, with the type species *Pseudedomia globularis* Smout.

The species *Pseudedomia viallii* (Colalongo) and *P. drorimensis* Reiss, Hamaoui and Ecker seem to occur only in the Cenomanian. However, *P. drorimensis* differs in morphology from the type *Pseudedomia*, and *P. viallii* has been described as a member of *Sellialveolina* (Caus, pers. com.). Both records may therefore not belong here. In addition, post-Cenomanian records of *Pseudedomia* in Spain and Portugal have yet not been confirmed and require further study.

8.8 *Raadshoovenia*

Suborder MILIOLINA Delage and Hérouard, 1896

Superfamily ALVEOLINACEA Ehrenberg, 1839

Family RHAPYDIONINIDAE Keijzer, 1945

Subfamily RHAPYDIONINNINAE Keijzer, 1945

Genus RAADSHOOVENIA van den Bold, 1946

8.8.1 Description

Van den Bold (1946) established the genus based on Eocene material from Guatemala. The porcelaneous test of *Raadshoovenia* is in the juvenile stage planispiral involute, consisting of around three whorls. The adult stage is uncoiled and rectilinear. The interior of the rounded chambers is subdivided by numerous septula.

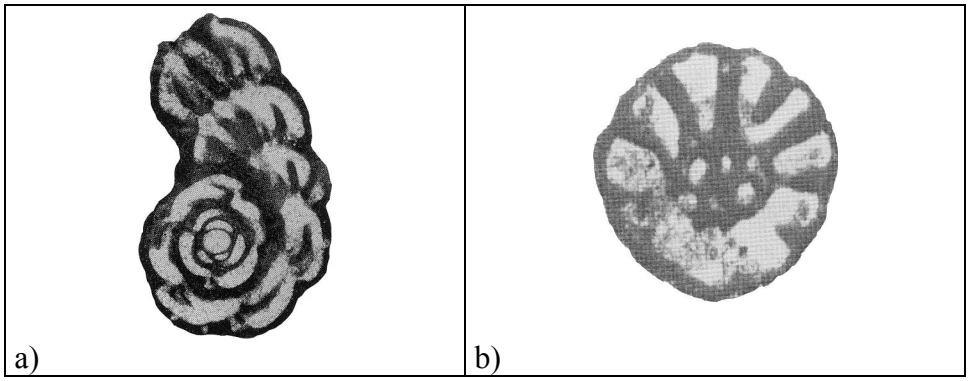

Figure 8.29: *R. salentina* (Papetti and Tedeschi); a) Sartorio and Venturini, 1988, b) Hamaoui and Fourcade, 1973

8.8.2 Species

Type species: *Raadshoovenia guatemalensis* van den Bold, 1946^{+}

Synonyms: *Raadshoovenia* van den Bold, 1946^{+}

Species: *R. cuvillieri* (Fourcade)$^{+}$

R. salentina (Papetti and Tedeschi, 1965)$^{+}$

8.8.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
S-MEX (3)					?
GTM (9)					?
IRQ (27)		X	X		
ESP (32)			X		
ITA (35)		X	X	X	
GRC (36)		X	X		
YUG (37)		X			
HRV (62)			X		
SVN (63)	?	?	?	?	

Figure 8.30: Stratigraphic range of the genus *Raadshoovenia* in its reported localities

The first occurrences of *Raadshoovenia* are from the Santonian of Italy (35; de Castro, 1971, 1988, 1990; Hamaoui and Fourcade, 1973; Fleury et al., 1985; Loeblich and Tappan, 1988), Greece (36; Loeblich and Tappan, 1988), Yugoslavia (37; Fleury et al., 1985) and Iraq (27; Fleury et al., 1985). In the Campanian nearly the same distribution pattern prevails, whereas in the Maastrichtian *Raadshoovenia* is only reported from Italy (35; Luperto Sinni and Ricchetti, 1978). In the Paleocene there are no records from the Central Tethyan region but from Mexico (Butterlin, 1981; Pécheux, 1984) and Guatemala (de Castro, 1971; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988). A clear origination center cannot be given to date.

8.8.4 Biology

Raadshoovenia is often found together with *Cuneolina*, which is recorded from shallow marine carbonate areas (Azéma et al., 1979; Caus, 1988; Gischler et al., 1994). *Raadshoovenia* is comparable to modern peneroplid foraminifera, which are commonly found in shallow water epifaunal habitas. Modern peneroplids also have a preference for epiphytal hard substrates including seagrasses and algal thalli (Langer, 1989, 1993; Langer et al., 1998). The enivronment of *Raadshoovenia* was probably in reefal and lagoonal settings or on shallow shelves not deeper than 100 meters.

8.8.5 Biogeographic distribution and Faunal Province

In the time from Santonian to Maastrichtian individuals of the genus *Raadshoovenia* were found in the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Iraq (27): Fleury et al., 1985

Spain (32): de Castro, 1971; *Hamaoui and Fourcade, 1973; *Azéma et al., 1979; Fleury et al., 1985; Loeblich and Tappan, 1988

Italy (35): de Castro, 1971; Hamaoui and Fourcade, 1973; Fleury et al., 1985; Luperto Sinni and Ricchetti, 1978; de Castro, 1988; Loeblich and Tappan, 1988; Sartorio and Venturini, 1988; de Castro, 1990

Greece (36): *Hamaoui and Fourcade, 1973; *Fleury, 1977; Fleury et al., 1979; Loeblich and Tappan, 1988; *Fleury et al., 1990

Yugoslavia (37): Fleury et al., 1985

Croatia (62): Fleury et al., 1985

Slovenia (63): *Bignot, 1972

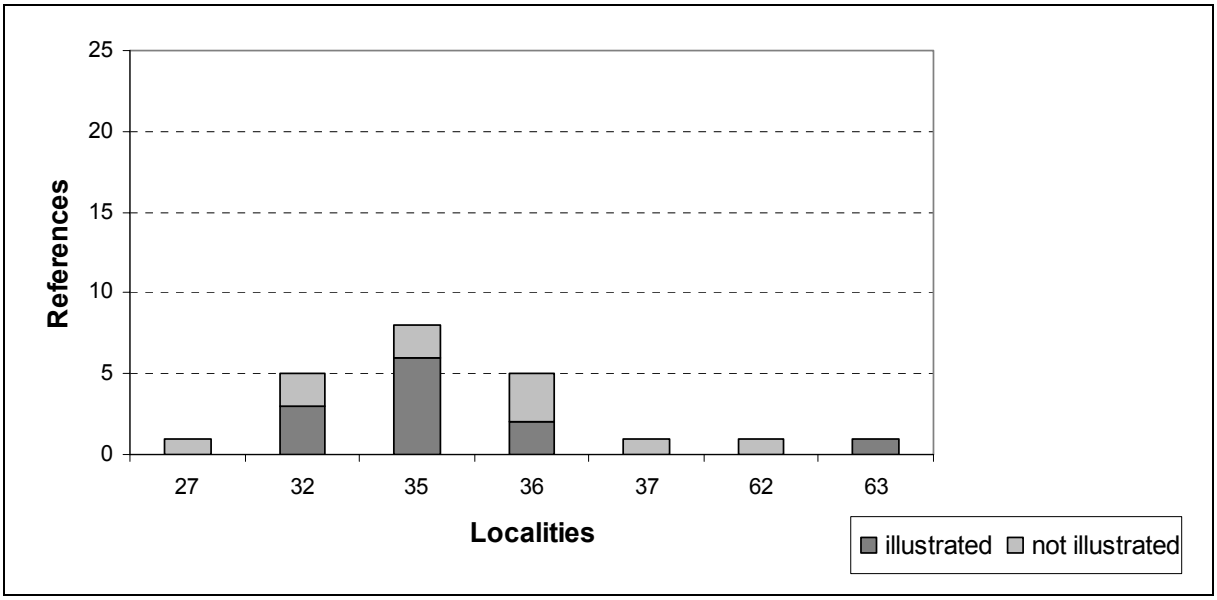

Figure 8.31: Number of illustrated and not illustrated references in the localities of *Raadshoovenia*

For reasons of clarity in figure 8.32 the locations Yugoslavia (37), Croatia (62), and Slovenia (63) were plotted together in locality 84.

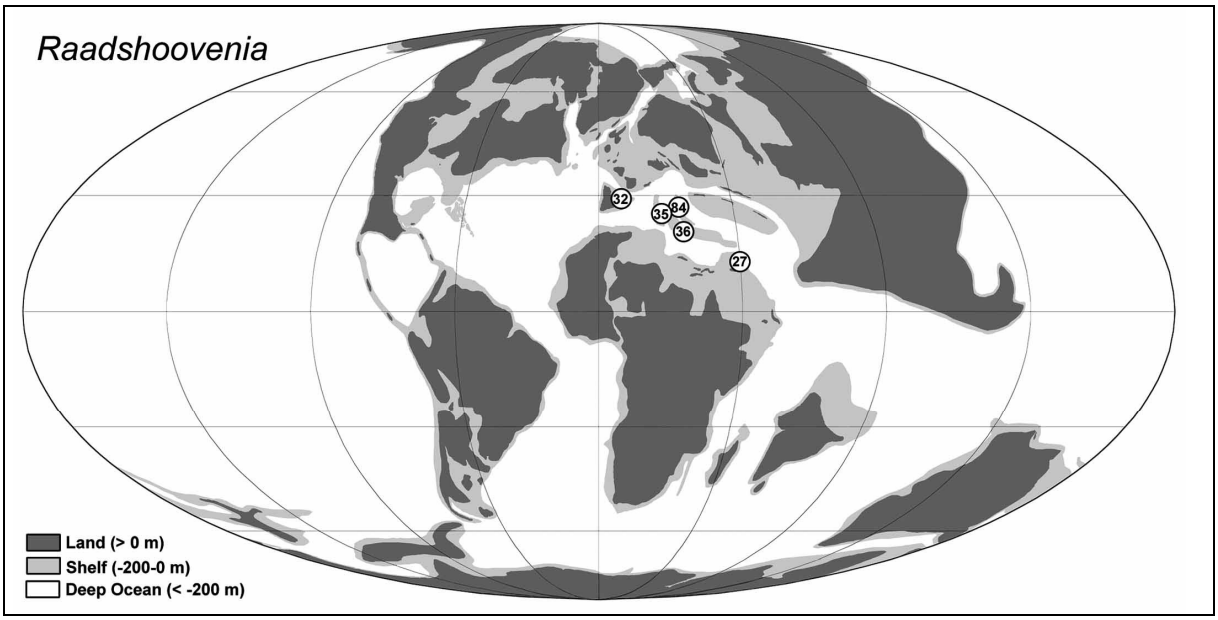

Figure 8.32: Global distribution of *Raadshoovenia* in the Late Cretaceous

In the Late Cretaceous *Raadshoovenia* shows a superregional distribution. It occurs in Southern Europe between Spain (32; de Castro, 1971; Fleury et al., 1985; Loeblich and Tappan, 1988) and Greece (36; Hamaoui and Fourcade, 1973; Fleury, 1977; Fleury et al., 1979, 1990; Loeblich and Tappan, 1988) as well as in Northern Africa (27; Fleury et al., 1985).

8.8.6 Remarks

The Eocene age of the Guatemalan material for the type species needs reinvestigation, inasmuch as all other species of the genus are restricted to the Upper Cretaceous (Loeblich and Tappan, 1988). *Raadshoovenia* has often been misidentified in the literature and the entire genus concept of *Raadshoovenia* and associated species requires a complete revision.

There are a number of problematic issues that concern this genus: Loeblich and Tappan (1988) place *Cuvillierinella* in synonymy with *Raadshoovenia*. In addition, the relationship between *Murciella* and *Raadshoovenia* has not been fully clarified to date. The outcome of this discussion will have a significant effect on the distribution of *Raadshoovenia* and associated taxa. The Tertiary records require additional studies to confirm their placement in the genus *Raadshoovenia* (see also Steuber et al., 2002).

8.9 *Rhapydionina*

Suborder MILIOLINA Delage and Hérouard, 1896
Superfamily ALVEOLINACEA Ehrenberg, 1839
Family RHAPYDIONINIDAE Keijzer, 1945
Subfamily RHAPYDIONININAE Keijzer, 1945
Genus RHAPYDIONINA Stache, 1913

8.9.1 Description

The genus *Rhapydionina* was erected in 1913 by Stache based on material from Lipiza (Slovenia). This genus shows a strong dimorphism. The juvenile stage of *Rhapydionina* (megalospheric generation) consists of one whorl which is planispirally enrolled. Hamaoui and Fourcade (1973) give a length of 7 mm and a breadth of 1.8 mm. The following chambers are uncoiled and rectilinear. The chambers are slightly arcuated towards the direction of coiling and distinctly incised. Each chamber is subdivided by septula, which arise from the wall to the center of the chamber. The microspheric generation, formerly called *Rhipidionina*, shows a fan-shaped outline.

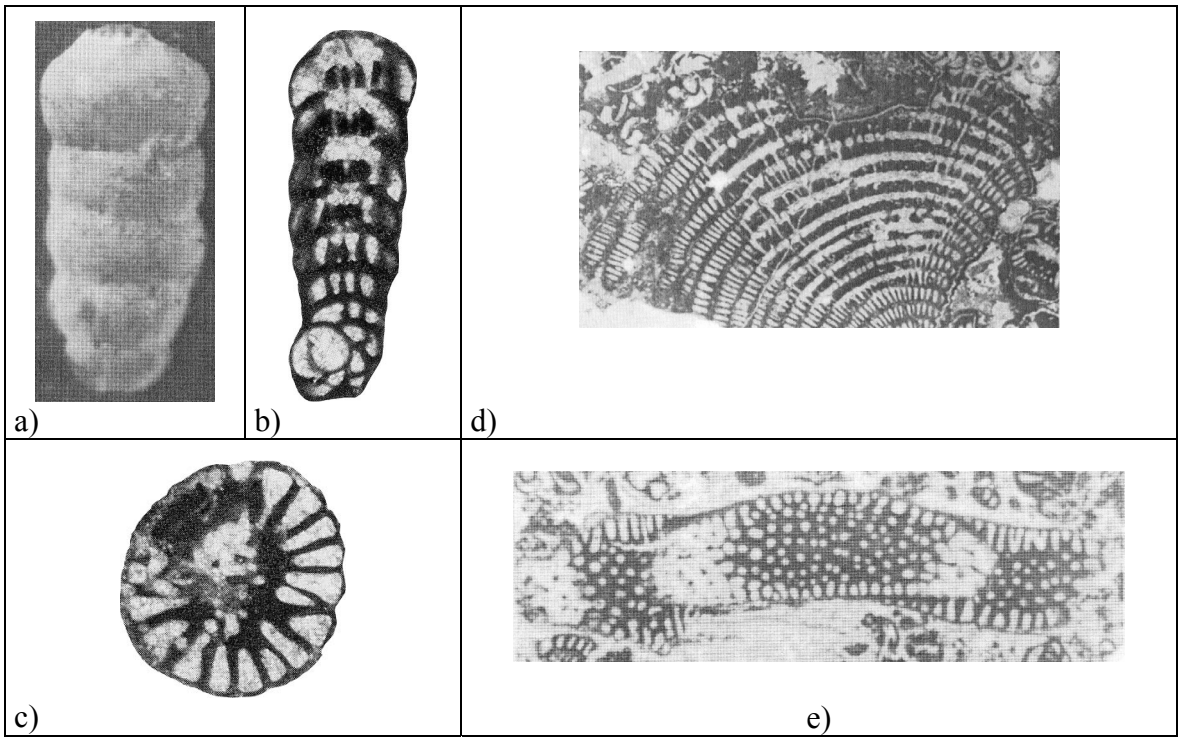

Figure 8.33: *R. liburnica* (Stache) a) - c) megalospheric generation, d), e) microspheric generation; a) Reichel, 1984, b), c) Sartorio and Venturini, 1988, d), e) Bignot, 1972

8.9.2 Species

Type species: *Peneroplis liburnica* Stache, 1889[+]

Synonyms: *Rhapydionina* Stache, 1913[+]

Rhipidionina Stache, 1913[+]; type species: *Pavonina liburnica* Stache, 1889[+]

Species: *R. liburnica* (Stache, 1889)[+]

8.9.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
IRQ (27)				X	
ITA (35)	X	X	X	X	
GRC (36)	X	X	X	X	
YUG (37)	X	X	X	X	
TUR (38)				X	
IRN (56)					X
ALB (61)				X	
HRV (62)				X	
SVN (63)				X	
ZYP (69)				X	

Figure 8.34: Stratigraphic range of the genus *Rhapydionina* in its reported localities

Pre-Santonian records of *Rhapydionina* are from Italy (35; de Castro, 1965; Loeblich and Tappan, 1988), Greece (36; Loeblich and Tappan, 1988), and Yugoslavia (37; Loeblich and Tappan, 1988). In the Santonian and in the Campanian *Rhapydionina* is known from Italy (35; Loeblich and Tappan, 1988), Greece (36; Hamaoui and Fourcade, 1973; Landrein et al., 2001), and Yugoslavia (37; Hamaoui and Fourcade, 1973). In the Maastrichtian the genus under consideration is reported from the eastern part of the European Tethys, including Italy (35), Yugoslavia (37) and Turkey (38). There is also a single record from Iraq (27; Fleury et al., 1985). Seiglie and Ayala-Castanares (1963) and Butterlin (1981) report *Rhapydionina* from Cuba and Mexico. Both records are likely to be incorrect and are therefore not included here. There is also a single Paleocene record from Iran (56; Kalantari, 1976) and an incorrect Jurassic record from the Mount Jolmo Lungma region in China (Ho et al., 1976). The origination center of *Rhapydionina* seems to be situated in the area between Italy, Greece and Yugoslavia, from where it dispersed to the East.

8.9.4 Biology

Rhapydionina is often found together with species of the genus *Raadshoovenia*. Other associated genera are *Cuneolina*, *Nummofallotia*, *Dictyopsella*, and *Siderolites*.

Rhapydionina seems to have preferred the ”upper photic zone, - ca. 40 m” as inferred from sedimentological records and the associated fauna (Hottinger, 1997).

8.9.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Rhapydionina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Iraq (27): Fleury et al., 1985

Italy (35): *Luperto Sinni, 1965; *Luperto Sinni, 1968; *Bignot, 1972; Fleury et al., 1985; *Loeblich and Tappan, 1988

Greece (36): Hamaoui and Fourcade, 1973; Fleury and Godfriaux, 1974; Fleury, 1977; *Fleury et al., 1979; Fleury et al., 1985; *Loeblich and Tappan, 1988; Zambetakis-Lekkas, 1988; Fleury et al., 1990; Mavrikas et al., 1994; Landrein et al., 2001

Yugoslavia (37): Hamaoui and Fourcade, 1973; Fleury et al., 1985; *Loeblich and Tappan, 1988

Turkey (38): Fleury et al., 1985

Albania (61): Fleury et al., 1985

Croatia (62): Hamaoui and Fourcade, 1973; Gusic et al., 1988; Gusic and Jelaska, 1990

Slovenia (63): *Bignot, 1972; *de Castro, 1972; Reichel, 1984; Sartorio and Venturini, 1988

Cyprus (69): Fleury et al., 1985

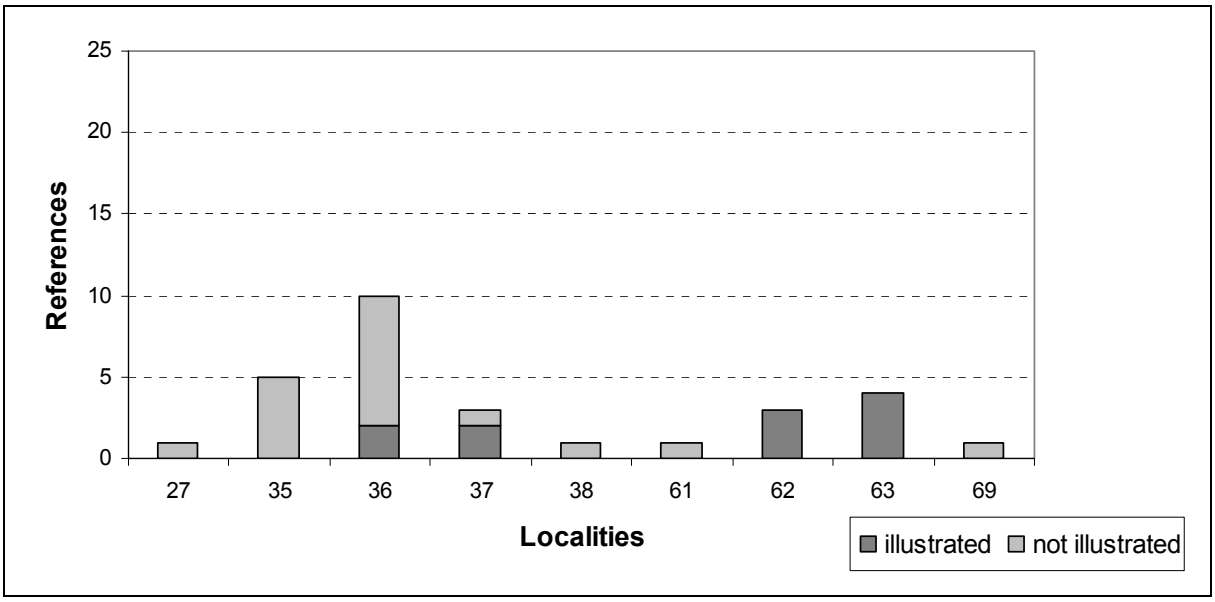

Figure 8.35: Number of illustrated and not illustrated references in the localities of *Rhapydionina*

For reasons of clarity the localities Yugoslavia (37), Croatia (62) and Slovenia (63) are plotted together in location 84 in figure 8.36.

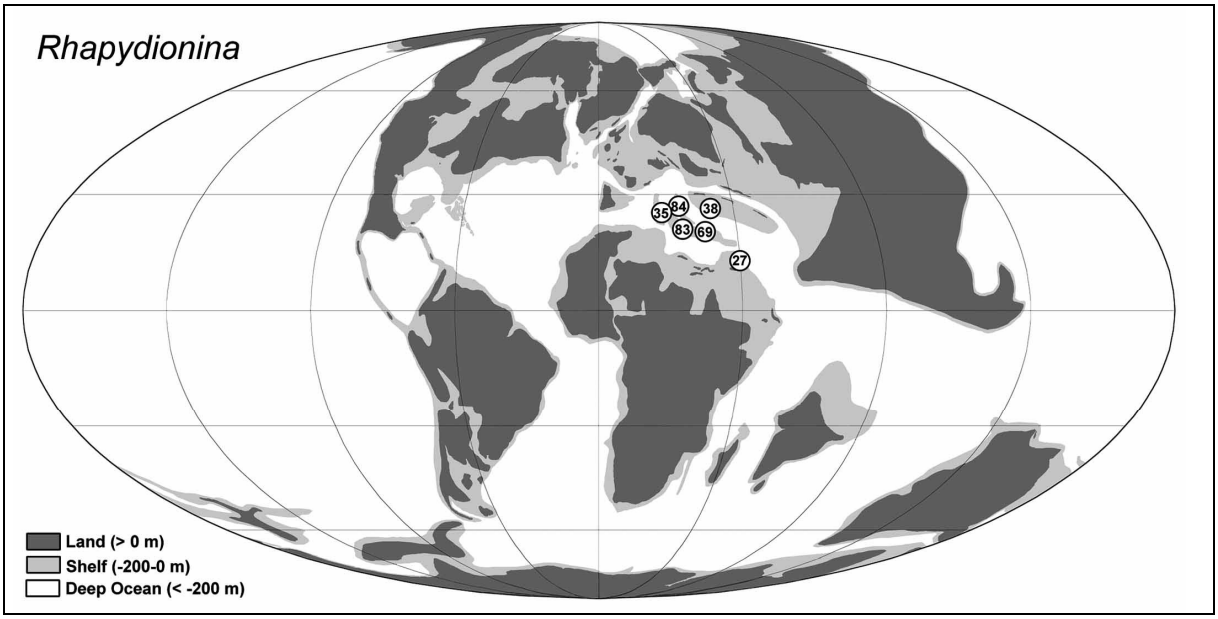

Figure 8.36: Global distribution of *Rhapydionina* in the Late Cretaceous

The main distribution of *Rhapydionina* in the Late Cretaceous is in Europe between Italy (35), Croatia (62), Greece (36) and Turkey (38), but there are also records of that genus from Iraq (27). The Caribbean records are highly unlikely, so that the biogeographic distribution of this genus is restricted to the European/North African region

8.9.6 Remarks

In the Cretaceous *Rhapydionina* is the megalospheric generation, while *Rhipidionina* is the microspheric one (Reichel, 1984).

8.10 *Subalveolina*

Suborder MILIOLINA Delage and Hérouard, 1896
Superfamily ALVEOLINACEA Ehrenberg, 1839
Family ALVEOLINIDAE Ehrenberg, 1839
Genus SUBALVEOLINA Reichel, 1936

8.10.1 Description

Reichel first described the genus *Subalveolina* in 1936 from Campanian strata of Belvès, Dordogne, France. The test of *Subalveolina* is fusiform with a length up to 10 mm and a diameter up to 1.4 mm (Reichel, 1936). The chambers are subdivided by numerous septula constructing chamberlets. In the polar region secondary chamberlets are present. A large preseptal passage is visible. The aperture consists of two rows of numerous openings.

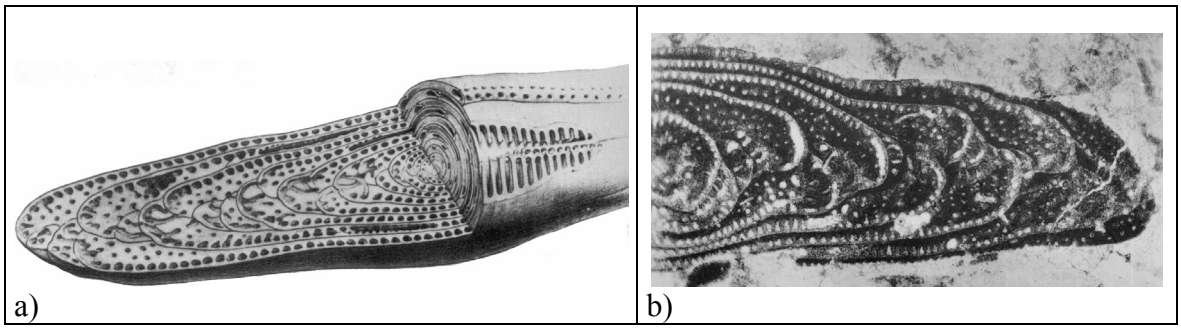

Figure 8.37: a), b) *S. dordonica* (Reichel); a), b) Reichel, 1936

8.10.2 Species

Type species: *Subalveolina dordonica* Reichel, 1936; p. 74, pl. 4, figs. 1-4
Synonyms: *Subalveolina* Reichel, 1936; p. 73; pl. 4, figs. 1-4
Species: *S. dordonica* Reichel, 1936; p. 74; pl. 4, figs. 1-4
S. pérébaskini Reichel, 1953; p. 257; pl. 13, figs. 1, 2; pl. 14, figs. 1-7

8.10.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
FRA (31)		X	X		

Figure 8.38: Stratigraphic range of the genus *Subalveolina* in its reported localities

The genus *Subalveolina* is only known from France (31; Reichel, 1936, 1953; Fleury et al., 1985; Caus and Hottinger, 1986) with a first appearance in the Early Senonian (Hottinger, 1997). It is recorded from the Santonian and from the Campanian, but there are no records of Maastrichtian species. *Subalveolina* shows a high degree of endemism as it occurs exclusively in France (31; Caus and Hottinger, 1986; Loeblich and Tappan, 1988; Reichel, 1936, 1953; Séronie-Vivien, 1972). As *Subalveolina* is only reported from France it should be originated there.

8.10.4 Biology

In France *Subalveolina* is associated with *Dictyopsella* and *Nummofallotia*. The species *S. pérébaskini* Reichel is reported together with *Lacazina elongata*.

This genus is interpretated to have lived in the upper photic zone at depths to 40 m (Hottinger, 1997) in high energy zones of a shallow ramp (Hohenegger, 1999). In contrast, Hottinger (1983) interprets the habitat as a soft substrate in an environment of low water energy. Comparative observations on modern elongate Alveolinids make the latter interpretation more likely (Langer and Lipps, 2003).

8.10.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Subalveolina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

France (31): Reichel, 1936; Reichel, 1953; Séronie-Vivien, 1972; Fleury et al., 1985; Caus and Hottinger, 1986; Loeblich and Tappan, 1988

Southern Europe: Dilley, 1973

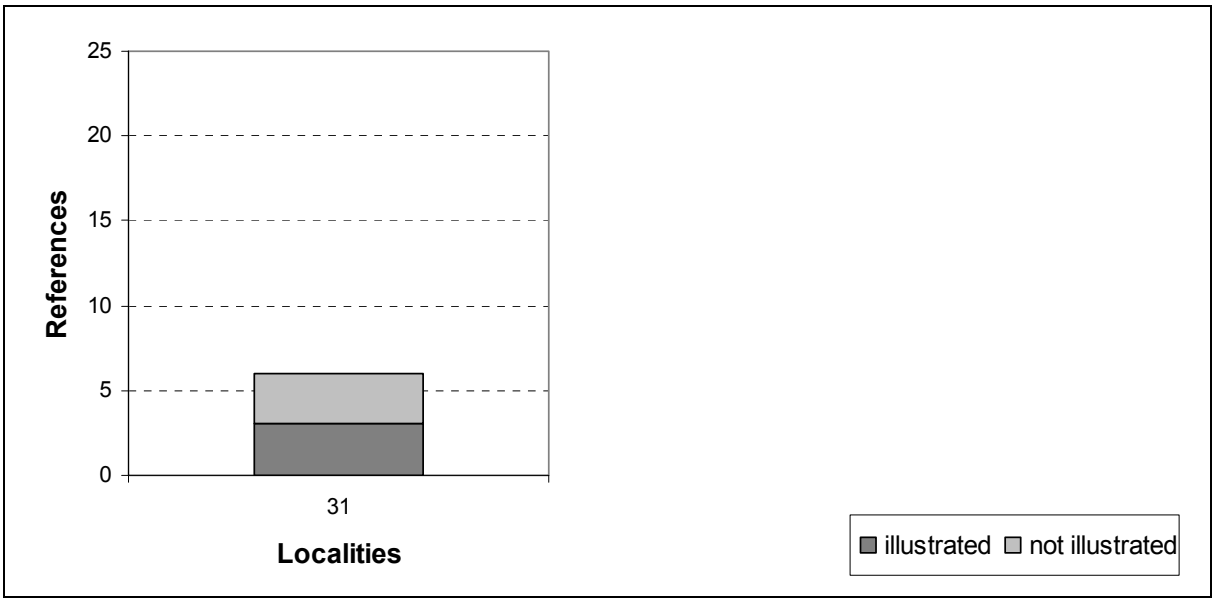

Figure 8.39: Number of illustrated and not illustrated references in the localities of *Subalveolina*

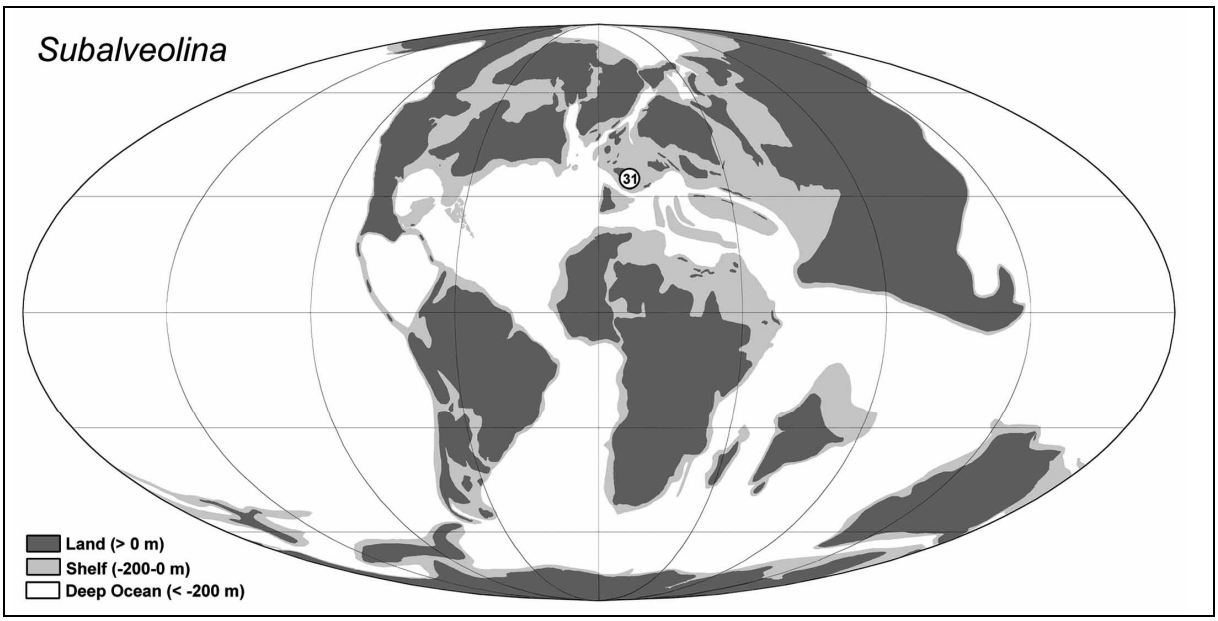

Figure 8.40: Global distribution of *Subalveolina* in the Late Cretaceous

In the Late Cretaceous *Subalveolina* occurs in France (31; Reichel, 1936, 1953; Séronie-Vivien, 1972; Caus and Hottinger, 1986; Loeblich and Tappan, 1988). *Subalveolina* shows a high degree of endemism, as it is restricted to SW Europe.

8.10.6 Remarks

Caus and Hottinger (1986) quote Pécheux (1984) that it was also reported from the Santonian-Campanian of Mexico (76), but this cannot be verified.

8.11 *Meandropsina*

Suborder MILIOLINA Delage and Hérouard, 1896
Superfamily ALVEOLINACEA Ehrenberg, 1839
Family MEANDROPSINIDAE Henson, 1948
Genus MEANDROPSINA Munier-Chalmas, 1898

8.11.1 Description

Munier-Chalmas defined the genus *Meandropsina* (in Schlumberger, 1898) based on Cretaceous material from Tobillas, Spain. *Meandropsina* has a large discoidal test with a diameter of up to 17 mm (Loeblich and Tappan, 1988) and a thickness of 0.5 mm (Loeblich and Tappan, 1988). The early chambers are planispiral with strongly curved septa. Later the chambers become peneropline and finally cyclical. The chambers are subdivided by numerous straight septula forming nearly rectangular chamberlets. The arrangement of the chambers appears somewhat irregular and the septa on the outside of the test are meandering.

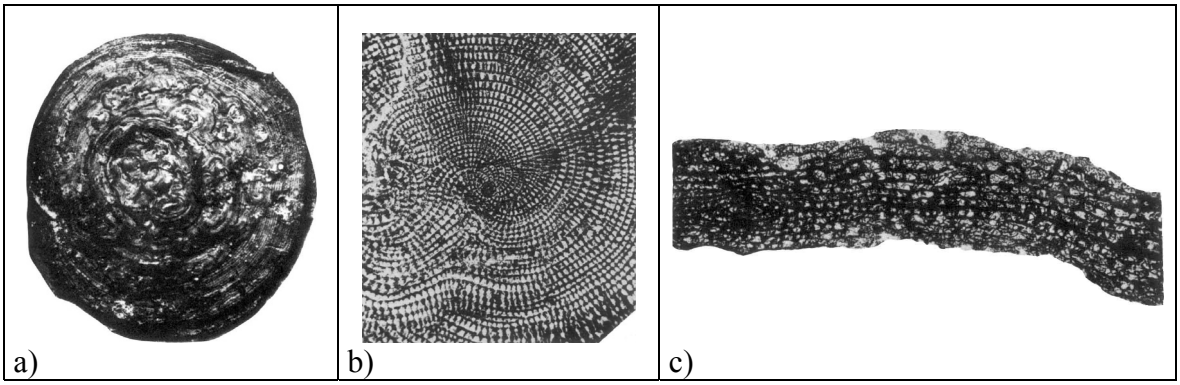

Figure 8.41: a) - c) *M. vidali* Schlumberger; a) - c) Schlumberger, 1898

8.11.2 Species

Type species: *Meandropsina vidali* Schlumberger, 1898; p. 337+
Synonyms: *Meandropsina* Munier-Chalmas, in Schlumberger, 1898; p. 336
Species: *M. vidali* Schlumberger, 1898; p. 337; pl. 8, figs. 1-3; pl. 9, figs. 4-6

8.11.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
FRA (31)				X	
ESP (32)	?	X	X	?	
IRN (56)	?	?	?	?	

Figure 8.42: Stratigraphic range of the genus *Meandropsina* in its reported localities

The first stratigraphic occurrence of *Meandropsina* is in the Santonian of Spain (32; Hottinger, 1966; Caus and Cornella, 1983) respectively in the Pyrenees (31/32; Caus and Hottinger, 1986). Records from the Campanian exist only from Pyrenean sites (31/32; Caus and Hottinger, 1986). In the Maastrichtian *Meandropsina* is reported from France (Barrier and Neumann, 1959) and China (73; Gaetani et al., 1980), but a verification of these reports is still required. From the Senonian *Meandropsina* is reported from Spain (32; Loeblich and Tappan, 1988) and from Iran (56; Loeblich and Tappan, 1988). Dilley (1971) already reports the genus from the Cenomanian of southern Europe and southwest Asia. *Meandropsina* originated in the Pyrenean region.

8.11.4 Biology

Meandropsina is commonly associated with *Nummofallotia* (Hottinger, 1966). In comparison to modern discoidal morphotypes (e.g., *Sorites*) it appears plausible to assume a preferred epiphytic habitat for *Meandropsina* (Langer, 1993). This is in agreement with assumptions by Hottinger (1983, 1997) who places the genus in the upper photic zone down to a depth of approximately 40 m.

8.11.5 Biogeographic distribution and Faunal Province

From the Late Cretaceous *Meandropsina* is reported from the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

France (31): Barrier and Neumann, 1959

Spain (32): *Schlumberger, 1898; Hottinger, 1966; Caus and Cornella, 1983; *Loeblich and Tappan, 1988

Pyrenees (31/32): Caus and Hottinger, 1986

Southern Europe: Dilley, 1973

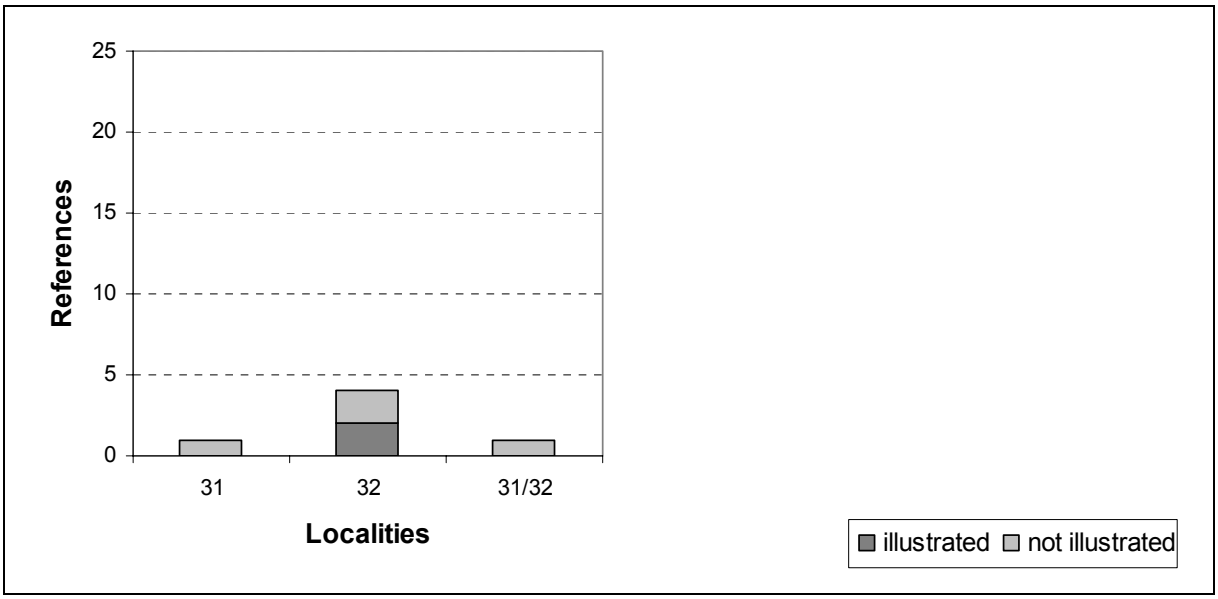

Figure 8.43: Number of illustrated and not illustrated references in the localities of *Meandropsina*

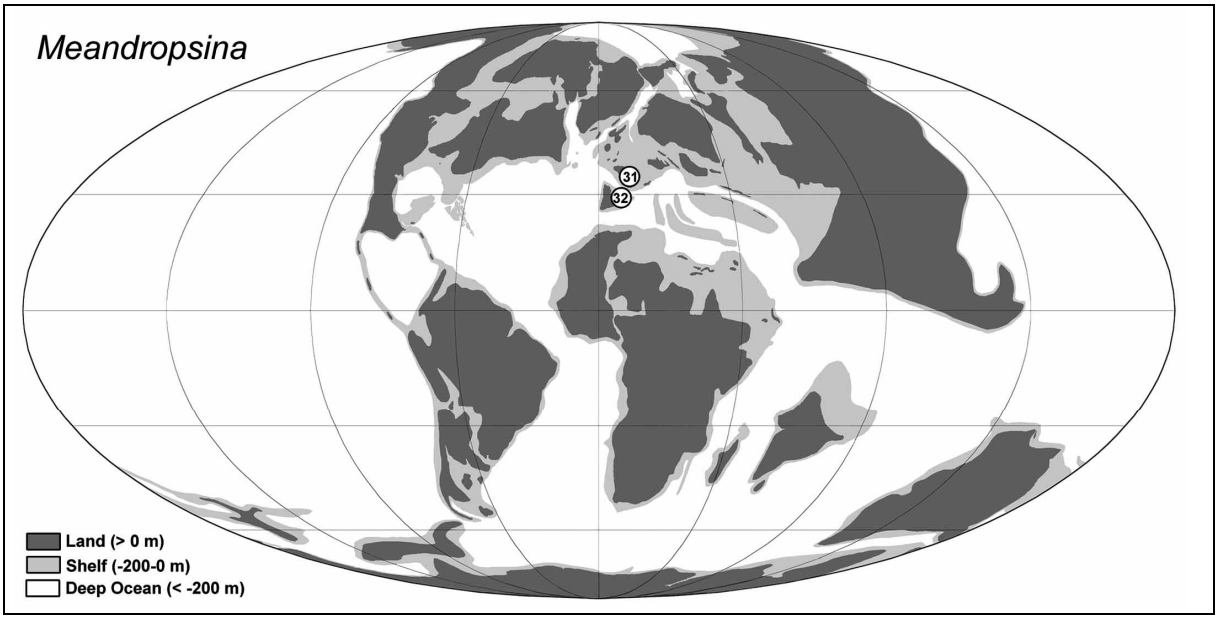

Figure 8.44: Global distribution of *Meandropsina* in the Late Cretaceous

In the Late Cretaceous *Meandropsina* did occur in the Pyrenean Gulf to which it was restricted according to Caus and Hottinger (1986). Loeblich and Tappan (1988) also report it from the Senonian of Iran, but this cannot be verified by illustrations or by a citation. Gaetani et al. (1980) report the genus in Maastrichtian sediments in China. However, his illustration shows a specimen that belongs to *Fascispira*. The genus is therefore endemic to the Pyrenean Gulf with a regional distribution pattern similar to *Lacazina*.

8.11.6 Remarks

In the Caribbean area ?*Meandropsina rutteni* is reported from the Maastrichtian of Cuba (1; Caudri, 1944; Brönnimann, 1954) and Mexico (76; Caudri, 1944). The morphological structure of the Caribbean *Meandropsina* records however, is distinctly different and therefore belongs to the genus *Ayalaina*.

Renz (1936) reports of the species ?*Meandropsina* n. sp. aff. *Nonionina cretacea* from the Maastrichtian of Switzerland (58; pl. 33, figs. 1, 2), which clearly shows oblique septa, which do not occur in *Meandropsina*. It is more likely that these specimens belong to the type species of *Nummofallotia* Barrier and Neumann. For the same reasons, also *Meandropsina vidali* from the Maastrichtian of Switzerland (58; pl. 33, figs. 3, 5, 6) and *Meandropsina* sp. from the Maastrichtian of Switzerland (58; pl. 30, fig. 3; pl. 31, fig. 3) should be considered to be members of *Nummofallotia*. Due to these results also the not illustrated records of *Meandropsina* sp. from Spain (32), Portugal (39) and France (31) are doubtful.

Gaetani et al. (1980) report of ?*Meandropsina* sp. from the late Maastrichtian of Ladakh-Himalaya (73; pl. 11, fig. 4b), but the illustration depicts a *Fascispira* and not a *Meandropsina*. *Meandropsina vidali* from the Santonian of Spain (32; pl. 8, fig. 2), which is reported by Schlumberger (1899) is more similar to *Fallotia* than to *Meandropsina* as the chambers are strongly overlapping, while in *Meandropsina* the chambers become peneropline and later cyclical. Also the other illustrated specimens (pl. 9, figs. 11, 14) cannot be assigned to *Meandropsina* as they lack a peneropline stage (pl. 9, fig. 11) and because the test is not discoidal but lenticular (pl. 9, fig. 14).

8.12 *Nummofallotia*

Suborder MILIOLINA Delage and Hérouard, 1896
Superfamily ALVEOLINACEA Ehrenberg, 1839
Family MEANDROPSINIDAE Henson, 1948
Genus NUMMOFALLOTIA Barrier and Neumann, 1959

8.12.1 Description

The type species of *Nummofallotia*, *Nonionina cretacea*, was established by Schlumberger (1899), based on material from the Santonian of Tragó de Noguera, Spain. In 1959, Barrier and Neumann erected the new genus *Nummofallotia* (p. 228). The test of *Nummofallotia* is lenticular with a diameter of up to 0.3 mm and a maximum thickness of 0.1 mm (Luperto Sinni, 1968). The globular proloculus is followed by a short flexostyle. The five whorls are arranged planispirally. The septa are distinct oblique and backwards curved towards the periphery.

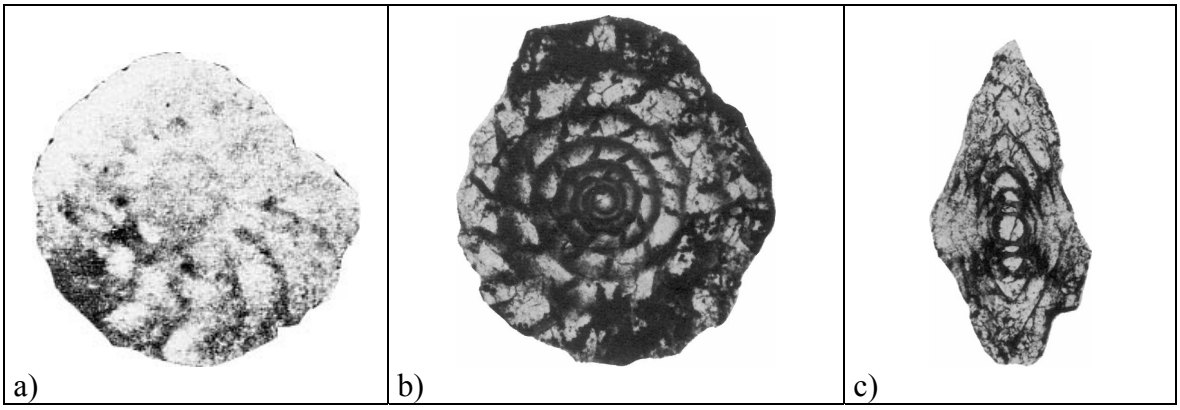

Figure 8.45: a) - c) *Nonionina cretacea* Schlumberger; a) - c) Schlumberger, 1899

8.12.2 Species

Type species: *Nonionina cretacea* Schlumberger, 1899; p. 460; pl. 8, fig. 1; pl. 11, fig. 21, 22
Synonyms: *Nummofallotia* Barrier and Neumann, 1959; p. 228
Meandropsina vidali Renz, 1936; pl. 33, fig. 3-6
?*Meandropsina* n. sp. aff. *Nonionina cretacea* Renz, 1936; pl. 30, fig. 3; pl. 31, fig. 3; pl. 33, figs. 1, 2; txtfig. 5b

Species: *N. apula* Luperto Sinni, 1968; p. 97; pl. 1, fig. 1-6; pl. 2, figs. 1-6; pl. 3, figs. 1-4, 6

N. cretacea (Schlumberger, 1899)

Nonionina cretacea Schlumberger, 1899; p. 460; pl. 8, fig. 1; pl. 11, figs. 21, 22

8.12.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
FRA (31)	X	X	X	X	
ESP (32)	X	X	X	X	
ITA (35)	?	X		X	
GRC (36)				X	
TUR (38)			X		
IRN (56)	X				
NLD (57)	X	X	X	X	X
CHE (58)				X	
HRV (62)	?		X	X	
SVN (63)	?	?	?	?	

Figure 8.46: Stratigraphic range of the genus *Nummofallotia* in its reported localities

The first stratigraphical record of *Nummofallotia* stem from the Cenomanian of Spain (32; Hottinger, 1966) and Iran (56; Sartorio and Venturini, 1988). From the Santonian it is known from West European localities (France, Spain, Italy, and the Netherlands). In the Campanian and in the Maastrichtian the genus is also known from localities situated more in eastern parts of Europe (Croatia, Greece, and Turkey). In the Maastrichtian *Nummofallotia* is reported from South India (44; Gowda, 1964). Hofker (1966) records the genus from the Paleocene of the Netherlands (57). It is not possible to localize the origination center of *Nummofallotia* as it occurs in the Cenomanian both in the East (Iran) and in the West (Spain) of the Tethys.

8.12.4 Biology

In France (31) *Nummofallotia* was found in association with *Orbitoides* (Santonian – Maastrichtian), *Dictyopsella* (Santonian – Maastrichtian), *Subalveolina dordonica* (Santonian), *Siderolites* (Santonian – Maastrichtian), and *Cuneolina* (Campanian).

In Spain (32) *Nummofallotia* is associated with *Dictyopsella* (Santonian, Campanian), *Orbitoides* (Campanian), and *Meandropsina vidali* (Santonian).

Together with *Cuneolina Nummofallotia* appeared in Croatia (62; Campanian) as well as in Italy (35; Santonian – Maastrichtian). Further in the Maastrichtian of Italy *Nummofallotia* occurs together with *Raadshoovenia salentina*.

In Turkey (38) *Nummofallotia* is associated in the Campanian with *Helicorbitoides* and *Orbitoides*.

In the Maastrichtian of southern India (44) *Nummofallotia* occurs together with *Lepidorbitoides*, *Orbitocyclina* and *Siderolites*.

Nummofallotia probably lived, like all meandropsinids, in regions of low water energy on soft substrate (Hottinger, 1983), in lagoons in the back-reef area (Gusic et al., 1998), on shallow marine carbonate ramps (Gischler et al., 1994), or on external platforms (Mavrikas et al., 1994). *Nummofallotia apula* is reported from shallow subtidal sites on protected platforms (Gusic and Jelaska, 1990) in temperate-warm water (Luperto Sinni, 1968).

8.12.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Nummofallotia* occurs in the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

France (31): *Barrier and Neumann, 1959; Gendrot, 1965; Gendrot, 1968; Séronie-Vivien, 1972; van Gorsel, 1973a; *Loeblich and Tappan, 1988

Spain (32): Schlumberger, 1899; Hottinger, 1966; Hofker, 1967; *Azéma et al., 1979; Caus and Vicens, 1984; *Loeblich and Tappan, 1988

Italy (35): Luperto Sinni, 1968; Luperto Sinni and Ricchetti, 1978; Ricchetti and Luperto Sinni, 1979; *Sartorio and Venturini, 1988

Greece (36): Mavrikas et al., 1994

Turkey (38): Sirel, 1995

Netherlands (57): Hofker, 1966; Loeblich and Tappan, 1988

Switzerland (58): Renz, 1936

Slovenia (62): Gusic and Jelaska, 1990; Gusic et al., 1998

Southern Europe: *Dilley, 1973

Western Tethys: Fleury et al., 1985

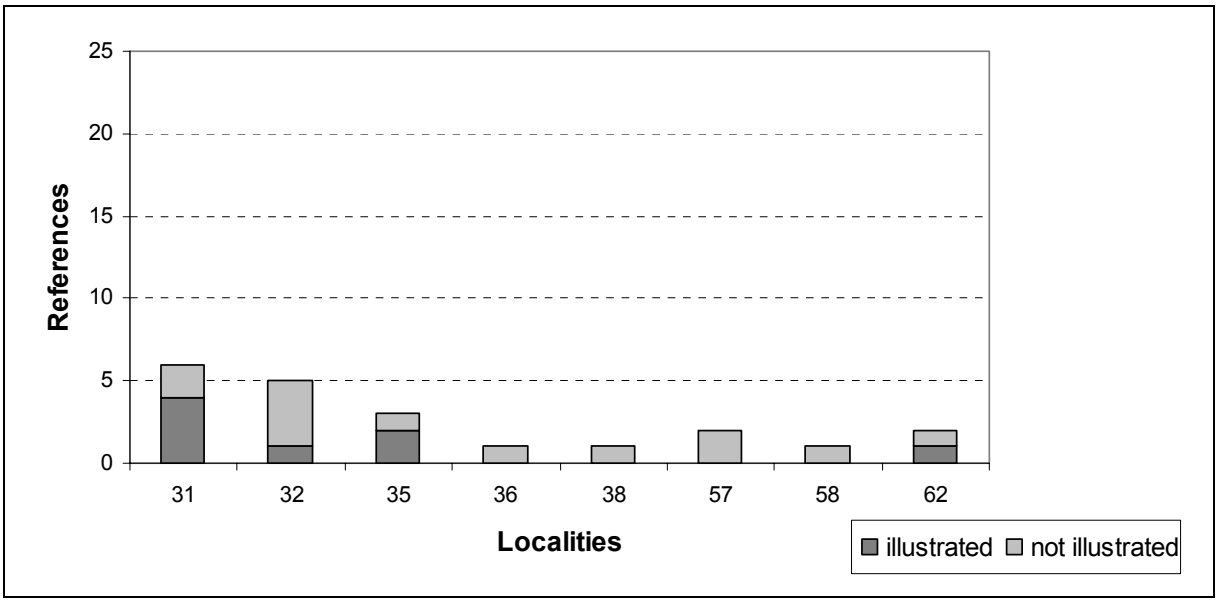

Figure 8.47: Number of illustrated and not illustrated references in the localities of *Nummofallotia*

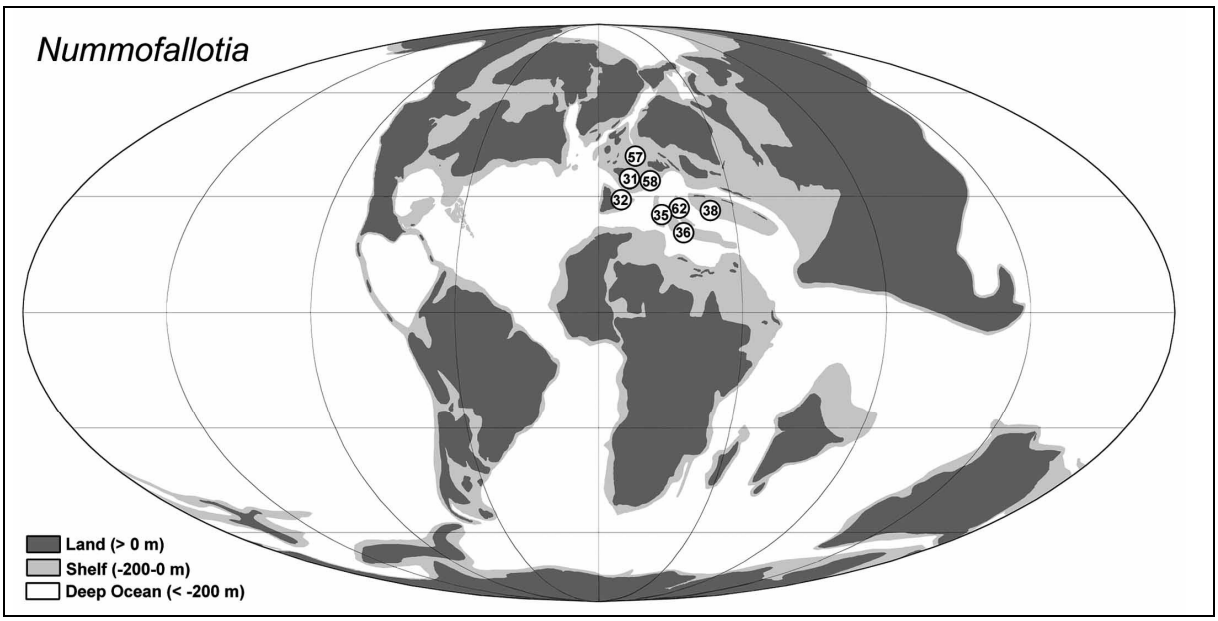

Figure 8.48: Global distribution of *Nummofallotia* in the Late Cretaceous

In the Late Cretaceous *Nummofallotia* is mainly distributed in Southern Europe. It occurs in the region between the Netherlands (57; Hofker, 1966; Loeblich and Tappan, 1988), Spain (32; Schlumberger, 1899; Hottinger, 1966; Hofker, 1967; Caus and Vicens, 1984; Loeblich and Tappan, 1988), Turkey (38; Sirel, 1995) and Greece (36; Mavrikas et al., 1994). This biogeographic pattern exhibits a superregional distribution. However, *Nummofallotia* is also reported from the Maastrichtian of Southern India (44; Gowda, 1964; McGowran, 1968), but these citations lack an illustration and require further confirmation.

8.12.6 Remarks

Renz (1936) mentions Maastrichtian specimens from Switzerland (?*Meandropsina* n. sp. aff. *Nonionina cretacea*, pl. 33, figs. 1, 2; *Meandropsina vidali*, pl. 33, figs. 3, 5, 6; *Meandropsina* sp., pl. 30, fig. 3; pl. 31, fig. 3) to the genus *Meandropsina*. However, these specimens show oblique septa, which do not occur in *Meandropsina* but belong to *Nummofallotia* Barrier and Neumann. With this background *Meandropsina* sp. records from Spain (32), Portugal (39) and France (31) are also doubtful and may belong to *Nummofallotia* too.

8.13 *Orbitoides*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family ORBITOIDIDAE Schwager, 1876
Subfamily ORBITOIDINAE Schwager, 1876
Genus ORBITOIDES d'Orbigny, 1848

8.13.1 Description

The genus *Orbitoides* was established by d'Orbigny (1848). The test of *Orbitoides* is lenticular with a circular outline, and can reach a diameter of up to 5 cm (Loeblich and Tappan, 1988). The test is biconvex, often with one side more elevated. The surface is ornamented with small knobs. The juvenarium consists of three or four chambers and is usually embraced by a thick wall. An equatorial layer is distinct.

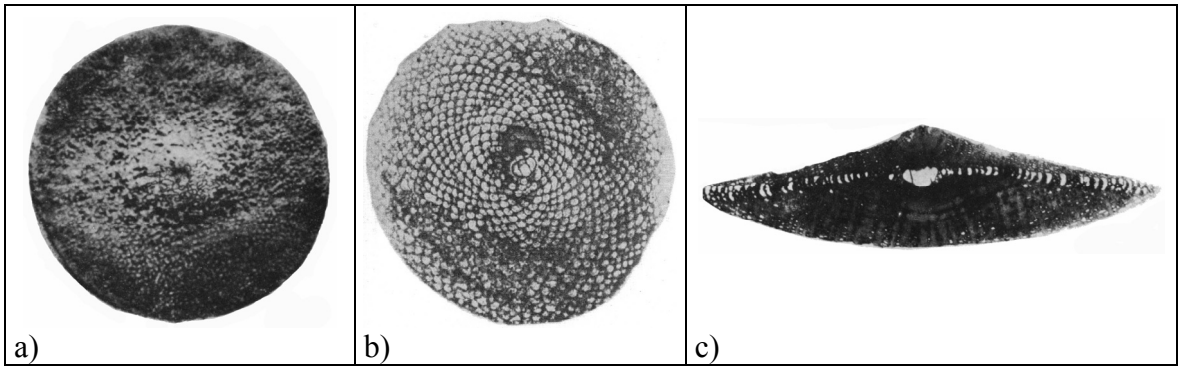

Figure 8.49: a), c) *O. apiculata* Schlumberger, b) *O. apiculata browni* (Ellis); a), c) Loeblich and Tappan, 1988, b) Ayala-Castanares, 1963

8.13.2 Species

Type species: *Lycophris faujasii* Defrance, 1823[+]
Synonyms: *Orbitoides* d'Orbigny, 1848[+]
Monolepidorbis sanctae-palagiae Astre, 1928[+]
Species: *Monolepidorbis sanctae-palagiae* Astre, 1928[+]
O. apiculata Schlumberger, 1901[+]
O. apiculatus Schlumberger[+]
O. brinkae Visser, 1951; p. 296; pl. 9, fig. 5; pl. 11, figs. 2, 5

O. browni (Ellis, 1932)[+]

O. compressa Marks[+]

O. dordoniensis Hofker, 1967

O. faujasii (Defrance)[+]

O. gensacicus (Leymerie)[+]

O. gruenbachensis Papp, 1955

O. jaegeri Papp and Küpper, 1953b[+]

O. hottingeri van Hinte, 1966

O. media Papp 1956

O. medius (d'Archiac)[+]

O. megaloformis Papp and Küpper, 1953

O. orientalis Rahaghi, 1976; pl. 4, figs. 1-16

O. palmeri Gravell, 1930

O. tissoti Schlumberger, 1903; p. 259; pl. 8, figs. 21-25

O. vacuolaris (Astre)[+]

O. villasensis Seiglie and Ayala-Castanares, 1963; p. 36; pl. 31, figs. 1, 2; pl. 32, figs. 1-3; pl. 33, figs. 1-3; pl. 34, figs. 1-3

8.13.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)			X	X	
F-USA (2)			X	X	
S-MEX (3)			X	X	X
JAM (6)				X	
HTI (7)			X		
VEN (10)				X	
DZA (16)		X	X	X	
TUN (17)		X	X		
LBY (18)			X	X	
EGY (20)			X	X	
SAU (22)				X	
OMN (23)			X	X	
QAT (24)				X	
YEM (25)				X	
SOM (26)			X	X	
SYR (28)				X	
BEL (30)				X	X
FRA (31)		X	X	X	
ESP (32)		X	X	X	
GER (33)			X		

SI-ITA (34)			X	X	
ITA (35)			X	X	X
GRC (36)			X	X	
YUG (37)			X	X	
TUR (38)			X	X	?
ROM (41)			X	X	
RUS (42)					X
N-IND (45)				X	
PAK (46)			X	X	
T-CHN (48)			X	X	
PNG (51)		?	X	X	
NE-MEX (52)			X		
IRN (56)			X	X	
NLD (57)				X	X
CHE (58)			X	X	
AUT (59)			X	X	
MKD (60)				X	
HRV (62)		X	X		
SVN (63)			?	X	
MEXu (68)		X	X	X	
ZYP (69)				X	
MMR (70)				X	
SVK (71)			X		
S-ITA (72)				X	

Figure 8.50: Stratigraphic range of the genus *Orbitoides* in its reported localities

The first occurrences of *Orbitoides* are from the Santonian of Algeria (16), Tunisia (17), France (31), Spain (32), Croatia (62), and Mexico (68). To date it is not clear from which region this genus originated.

8.13.4 Biology

Orbitoides usually occurs together with specimens of the genera *Omphalocyclus*, *Siderolites*, *Lepidorbitoides*, and *Sulcoperculina*. In the Late Cretaceous *Orbitoides* is interpreted to have lived in "deeper environments" (Hohenegger, 1999) in the upper photic zone at depths of about 40-80 m (Hottinger, 1997). The environment is mostly interpreted as being open marine with some terrigenous input (Caus, 1988; Caus et al., 2002). The morphology (thick lenticular test, presence of lateral chambers) indicates a habitat in high energetic environments, which is supported by the presence of *Siderolites*.

8.13.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Orbitoides* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): Caudri, 1944; Brönnimann, 1954; Küpper, 1954a; Seiglie and Ayala-Castanares, 1963; Ellis and Messina, 1967; de Castro, 1990; Neumann, 1993

Florida (2): *Brönnimann, 1954; Küpper, 1954a; Brönnimann, 1957; Ellis and Messina, 1967; Neumann, 1993; *Ismail and Boukhary, 2001

S-Mexico (3): Ayala-Castanares, 1963; Butterlin, 1967; Myers, 1968; Pécheux, 1984; de Castro, 1990; Rosales Dominguez et al., 1994

Jamaica (6): Gunter et al., 2002

Haiti (7): Butterlin, 1967

Venezuela (10): Renz, 1955; Ellis and Messina, 1967; Neumann, 1993

Algeria (16): Ellis and Messina, 1967; de Castro, 1990; Neumann, 1993; Caus et al., 1996

Tunisia (17): Ellis and Messina, 1967

Libya (18): Ellis and Messina, 1967; de Castro, 1990

Egypt (20): de Castro, 1990; Ismail and Boukhary, 2001

Saudi Arabia (22): Meric et al., 2001

Oman (23): Meric et al., 2001; Abdelghany, 2003

Qatar (24): Fleury et al., 1990

Yemen (25): Sartorio and Venturini, 1988; Fleury et al., 1990

Somalia (26): Fleury et al., 1990; Neumann, 1993

Syria (28): Ellis and Messina, 1967; Ismail and Boukhary, 2001

Belgium (30): Hofker, 1966

France (31): Grossouvre, 1904; Paquier, 1904; Renz, 1936; Visser, 1951; Papp and Küpper, 1953a; Küpper, 1954b; Papp, 1954; Papp, 1956; Barrier and Neumann, 1959; Ellis and Messina, 1967; Neumann, 1972; Séronie-Vivien, 1972; van Gorsel, 1973a; Wannier, 1983; Drooger, 1984; Baumfalk and van Hinte, 1985; Loeblich and Tappan, 1988; de Castro, 1990; Neumann, 1993; Caus et al., 1996; Meric et al., 1997; Ismail and Boukhary, 2001

Spain (32): Renz, 1936; *Küpper, 1954b; Hottinger, 1966; Hofker, 1967; Neumann, 1972; Azéma et al., 1979; Caus and Cornella, 1983; Wannier, 1983; Caus and Vicens, 1984; Caus, 1988; Loeblich and Tappan, 1988; de Castro, 1990; Neumann, 1993; Gischler et al., 1994; Caus et al., 1996

Germany (33): Hagn, 1971

Sicily (34): Ellis and Messina, 1967; Sartorio and Venturini, 1988; de Castro, 1990; *Ismail and Boukhary, 2001

Italy (35): Renz, 1936; Ellis and Messina, 1967; Luperto Sinni and Ricchetti, 1978; Sartorio and Venturini, 1988; de Castro, 1990; *Fleury et al., 1990; *Ismail and Boukhary, 2001

Greece (36): Arni, 1933; Renz, 1936; Visser, 1951; Butterlin, 1967; Ellis and Messina, 1967; Richter, 1974; Richter and Mariolakos, 1976; *Fleury, 1977; Zambetakis-Lekkas, 1988; de Castro, 1990; Fleury et al., 1990; Mavrikas et al., 1994; *Ismail and Boukhary, 2001

Yugoslavia (37): de Castro, 1990

Turkey (38): Neumann, 1972; de Castro, 1990; Sirel, 1991; Neumann, 1993; Özcan, 1993; Sirel, 1995; Caus et al., 1996; Inan, 1996a; Inan, 1996b; Sirel, 1996; Meric et al., 1997; Özcan and Özkan-Altiner, 1997; Görmüs, 1999; Özcan and Özkan-Altiner, 1999a; Özcan and Özkan-Altiner, 1999b; Özkan-Altiner and Özcan, 1999; Meric and Görmüs, 2001; Meric et al., 2001

Romania (41): Bratu, 1975; Ion, 1975; de Castro, 1990

N-India (45): Nagappa, 1959

Pakistan (46): Nagappa, 1959; Ellis and Messina, 1967; McGowran, 1968; Kureshy, 1977; Kureshy, 1980; Neumann, 1993; Weiss, 1993; Ismail and Boukhary, 2001

Tibet (48): Nagappa, 1959; Ellis and Messina, 1967; Mu et al., 1973; Ho et al., 1976; Sun and Zhang, 1983; Fleury et al., 1985; Wen, 1987; Willems et al., 1996; Ismail and Boukhary, 2001

Papua New Guinea (51): Ellis and Messina, 1967; McGowran, 1968; Fleury et al., 1985; Neumann, 1993

NE-Mexico (52): Caus et al., 2002

Iran (56): *Cox, 1937; Rahaghi, 1976; de Castro, 1990; Meric and Coruh, 1991; Meric et al., 2001

Netherlands (57): Renz, 1936; Visser, 1951; Papp, 1954; Hofker, 1966; Ellis and Messina, 1967; Loeblich and Tappan, 1988; de Castro, 1990; Neumann, 1993; *Caus et al., 1996; Ferràndez-Canadell, 2000; Ismail and Boukhary, 2001

Switzerland (58): Renz, 1936; Visser, 1951; Ellis and Messina, 1967; Wannier, 1983; de Castro, 1990; Bignot and Neumann, 1997

Austria (59): Visser, 1951; Papp and Küpper, 1953a; Papp and Küpper, 1953b; Papp, 1954; Papp, 1955b; Papp, 1955c; Papp, 1956; de Castro, 1990; Neumann, 1993; *Caus et al., 1996; Bignot and Neumann, 1997

Macedonia (60): Butterlin, 1967

Croatia (62): Gusic et al., 1988; Gusic and Jelaska, 1990

Slovenia (63): Bignot, 1972; de Castro, 1990

Philippines (65): *Hashimoto et al., 1978a

Mexico undifferentiated (68): Butterlin, 1981

Cyprus (69): Renz, 1936

Birma (70): Fleury et al., 1985

Slovakia (71): Neumann, 1993

Sardinia (72): Busulini et al., 1984

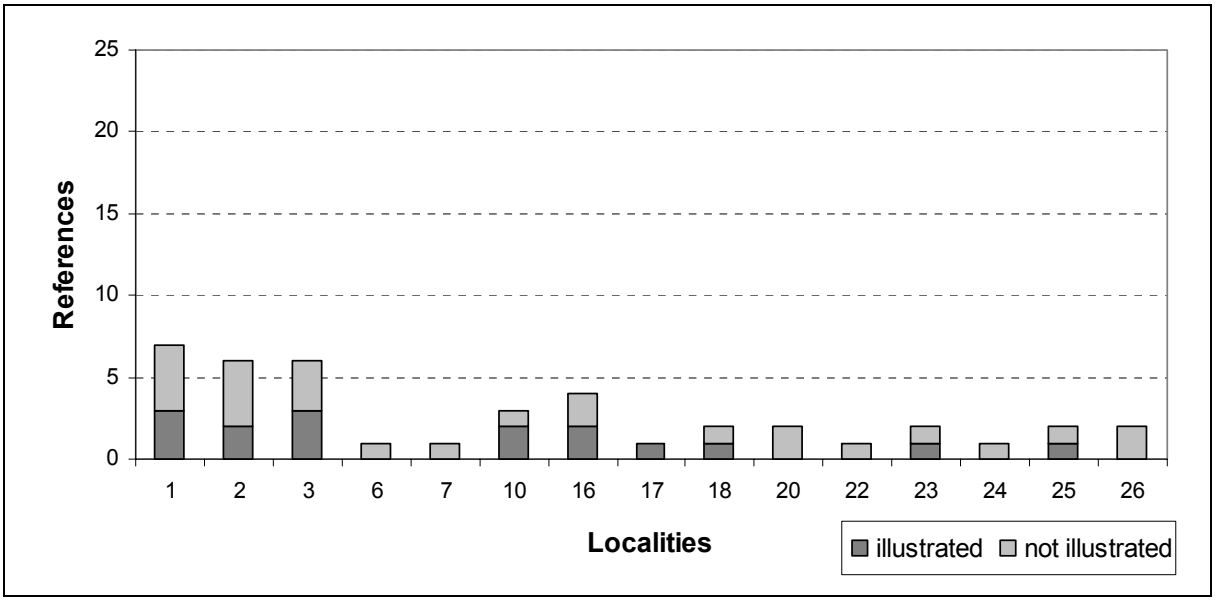

Figure 8.51a: Number of illustrated and not illustrated references in the localities of *Orbitoides*

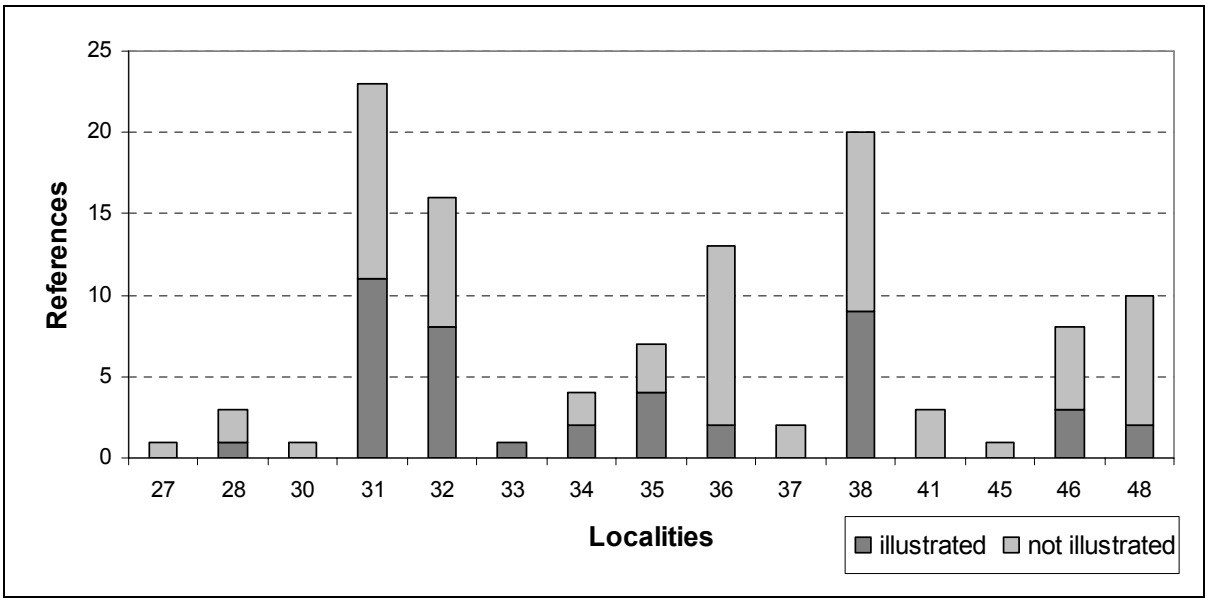

Figure 8.51b: Number of illustrated and not illustrated references in the localities of *Orbitoides*

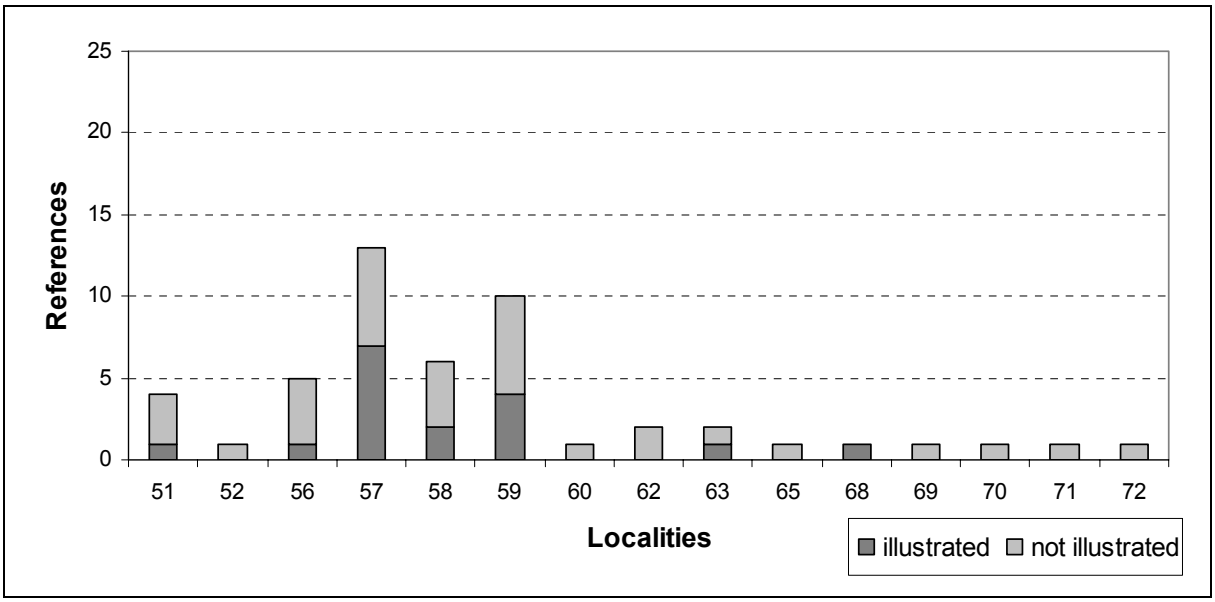

Figure 8.51c: Number of illustrated and not illustrated references in the localities of *Orbitoides*

For reasons of clarity the following locations were plotted together in figure 8.52: Belgium (30) and the Netherlands (57) in locality 80; Germany (33), Switzerland (58) and Austria (59) in locality 82; Greece (36) and Macedonia (60) in locality 83; Yugoslavia (37), Croatia (62), and Slovenia (63) in locality 84.

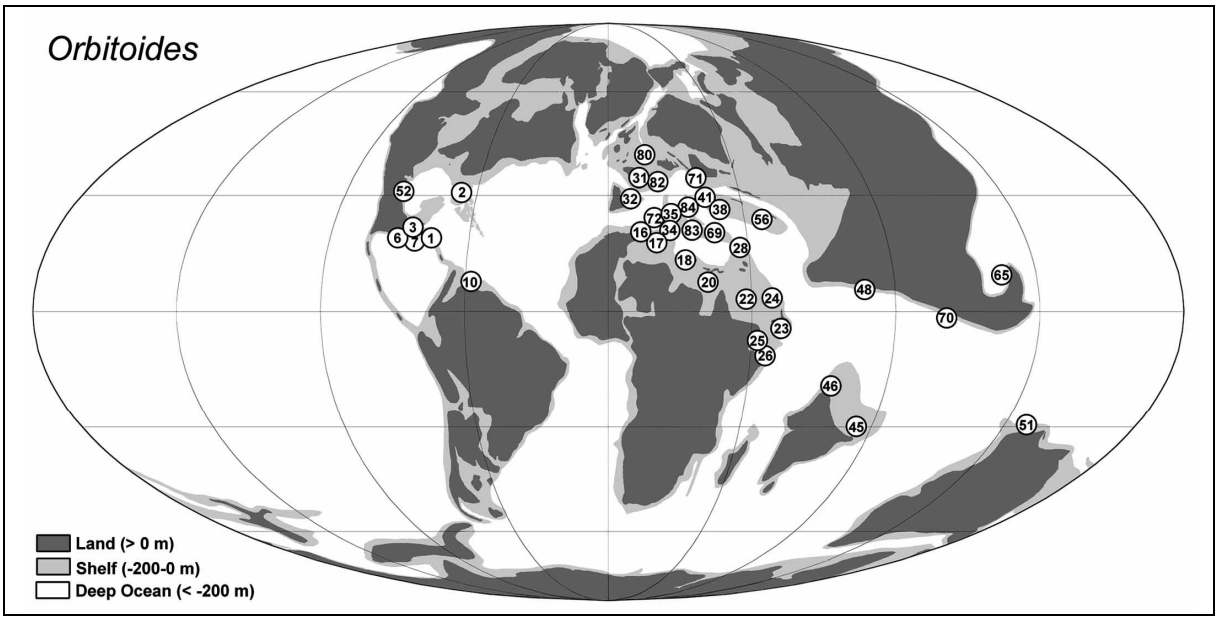

Figure 8.52: Global distribution of *Orbitoides* in the Late Cretaceous

The biogeographic distribution of the genus *Orbitoides* is circumtropical. It is widely present in the Caribbean realm between North America and Venezuela, as well as in the entire Tethyan region all the way to India and to the Philippines. The genus *Orbitoides* displays

some of the widest latitudinal and longitudinal extensions among the larger Upper Cretaceous foraminifera. The particularly wide distribution over the circumtropical warm water belt of the Cretaceous ocean is comparable to the distribution of modern amphisteginids (Langer and Hottinger, 2000) and is thus a particularly valuable tracer indicative of circumglobal warm-water surface currents and the heat transfer towards higher latitudes.

8.13.6 Remarks

Caus and Cornella (1983) report *Orbitoides douvillei* from the Campanian of Spain, which Loeblich and Tappan (1988) designated as the type species of *Schlumbergeria* Silvestri, which again is a synonym of *Orbitoides* Loeblich and Tappan (1988).

Grossouvre (1904) reports *Orbitoides socialis* from the Cretaceous of France and *Orbitoides minor* from the Cretaceous of the Netherlands. The former is the type species of *Lepidorbitoides*, whereas the latter is a synonym of *Lepidorbitoides*. As for both species no illustration is given, the records are not considered here.

Further Grossouvre (1904) mentions *Orbitoides mamillata* from the Cretaceous of France, which is the type species of *Clypeorbis*. Again, it lacks an illustration, so that the record remains doubtful.

Meric and Coruh (1991) interpret the specimens of *Orbitoides concavatus* Rahaghi from the Campanian of Iran (Rahaghi, 1976; pl. 4, figs. 11-25) as a primitive type of *Omphalocyclus* and establish the new genus *Praeomphalocyclus concavatus* (Rahaghi) for these specimens.

8.14 *Omphalocyclus*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family ORBITOIDIDAE Schwager, 1876
Subfamily OMPHALOCYCLINAE Vaughan, 1928
Genus OMPHALOCYCLUS Bronn, 1853

8.14.1 Description

Bronn defined the genus *Omphalocyclus* in the year 1853 (in Bronn and Roemer, 1853). The type location is not known but the Stratigraphic age for the type material is most probably Maastrichtian. The test of *Omphalocyclus* is discoidal and biconcave. It resembles modern representatives of the *Sorites* or *Marginopora*. The dimension is species-specific with a diameter of 1.2-7.0 mm and a thickness of 0.24-0.98 mm. The exterior of the test is structured by numerous distinct large openings. The juvenarium consists of 2-4 chambers. The alternating equatorial chambers become subrectangular and increase in height towards the periphery. A third layer of equatorial chambers is inserted.

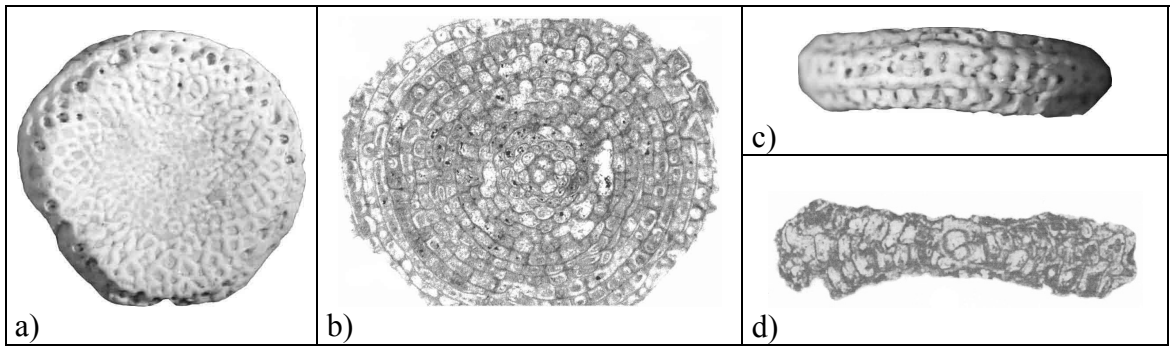

Figure 8.53: a), c) *Omphalocyclus* sp., b), d) *O. macroporus* (Lamarck); a), c) Goldbeck, b) Abramovich et al., 2002 , d) Butterlin, 1981

8.14.2 Species

Type species: *Orbulites macropora* Lamarck, 1816[+]
Synonyms: *Omphalocyclus* Bronn, in Bronn and Roemer, 1853
Species: *O. macropora* (Lamarck, 1816)
O. macroporus (Lamarck, 1816)

O. maldonensis Gunter et al., 2002; p. 150; pl. 1, figs. 1-6

O. disculus (Leymerie, 1851)

O. schlumbergeri (Silvestri, 1907)

8.14.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)				X	X
JAM (6)				X	
VEN (10)				X	
DZA (16)				X	
TUN (17)				X	
LBY (18)				X	
EGY (20)			X		
SAU (22)				X	
OMN (23)			X	X	
YEM (25)	?	?	?	?	
SOM (26)	?	?	?	?	
IRQ (27)				X	
SYR (28)				X	
MDG (29)			X		
BEL (30)				X	
FRA (31)				X	
ESP (32)				X	
GER (33)				X	
ITA (35)				X	
GRC (36)				X	
TUR (38)			X	X	
ROM (41)				X	
N-IND (45)				X	
PAK (46)			X	X	
T-CHN (48)			X	X	
IRN (56)				X	
NLD (57)				X	X
CHE (58)				X	
AUT (59)				X	
HRV (62)				X	
SVN (63)				X	
PHL (65)				X	X
ZYP (69)		?	?	?	
SVK (71)				X	

Figure 8.54: Stratigraphic range of the genus *Omphalocyclus* in its reported localities

The main stratigraphic distribution of *Omphalocyclus* is in the Maastrichtian, where it is reported from the Caribbean, Africa, Europe and Asia. There are also some Campanian

records from the eastern part of the Tethys (Tibet, Pakistan, Turkey, Madagascar, Oman and Egypt). In the Paleogene *Omphalocyclus* is described from Cuba (1; Ellis and Messina, 1967), the Netherlands (57; Hofker, 1966) and the Philippines (65; Hashimoto et al., 1978a). From Qatar (24; Fleury et al., 1990), Yemen (25; Fleury et al., 1990), and Somalia (26; Fleury et al., 1990) no stratigraphic age is given, while the record from Cyprus (69; Renz, 1936) is given with a Late Cretaceous age. The origination center of *Omphalocyclus* cannot be identified as it occurs at the same time in African, European and Asian locations.

8.14.4 Biology

Individuals of *Omphalocyclus* were found in association with *Clypeorbis*, *Cuneolina*, *Dictyopsella*, *Hellenocyclina*, *Laffitteina*, *Lepidorbitoides*, *Loftusia*, *Orbitoides*, *Pseudorbitoides*, *Siderolites*, *Sirtina*, *Sulcoperculina*, and *Vaughanina*.

The lithology from which individuals of *Omphalocyclus* were collected reflects a shallow warm water environment. The depth is given between 40 and 80 m in the upper photic zone (Hottinger, 1997) and also down to 100 fathoms (= 182.88 m; Visser, 1951). Most authors place *Omphalocyclus* in a sheltered shelf area (Nagappa, 1959; Gaetani et al., 1980; Caus, 1988), which can be either in a reefal facies (Dilley, 1971; Al-Omari and Sadek, 1976) or in a depressed area with poorly oxygenated conditions (Gaetani et al., 1980). The discoidal shape of *Omphalocyclus* resembles modern epiphytes like *Sorites* or *Marginopora*, so that a preferred epiphytic habitat on seagrass leaves or algal thalli is more likely (Langer, 1993).

8.14.5 Biogeographic distribution and Faunal Province

In the uppermost Cretaceous individuals of the genus *Omphalocyclus* are reported from the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): Caudri, 1944; Brönnimann, 1954; *Küpper, 1954b; *Renz, 1955; Hanzawa, 1962; Seiglie and Ayala-Castanares, 1963; Loeblich and Tappan, 1988; Ismail and Boukhary, 2001

Chiapas (3): Butterlin, 1981

Jamaica (6): Gunter et al., 2002

Venezuela (10): Renz, 1955

Algeria (16): Ellis and Messina, 1967; Ismail and Boukhary, 2001

Tunisia (17): *Renz, 1936; Loeblich and Tappan, 1988

Libya (18): Ellis and Messina, 1967; *LeBlanc, 2000; *Ismail and Boukhary, 2001

Egypt (20): Ismail and Boukhary, 2001

Saudi Arabia (22): Meric et al., 2001

Oman (23): Cox, 1937; Al-Omari and Sadek, 1976; Meric et al., 2001; Abdelghany, 2003

Qatar (24): Fleury et al., 1990

Yemen (25): Fleury et al., 1990

Somalia (26): Fleury et al., 1990

Iraq (27): Al-Omari and Sadek, 1976; Fleury et al., 1990

Syria (28): Loeblich and Tappan, 1988; Fleury et al., 1990

Madagascar (29): Abramovich et al., 2002

Belgium (30): Hofker, 1966

France (31): *Grossouvre, 1904; *Renz, 1936; *Küpper, 1954b; Papp, 1954; Ellis and Messina, 1967; Loeblich and Tappan, 1988; Caus et al., 1996

Spain (32): Hottinger, 1966; Azéma et al., 1979; Caus and Cornella, 1983; Caus, 1988; Neumann, 1993; Caus et al., 1996

Germany (33): Hagn, 1971

Italy (35): *Renz, 1936; *Visser, 1951; Loeblich and Tappan, 1988

Greece (36): *Renz, 1936; Visser, 1951; Butterlin, 1967; Hamaoui and Fourcade, 1973; Kalkreuth et al., 1976; Fleury, 1977; Loeblich and Tappan, 1988; Fleury et al., 1990

Yugoslavia (37): Fleury et al., 1990

Turkey (38): Meric, 1967; Loeblich and Tappan, 1988; Fleury et al., 1990; Sirel, 1991; Özcan, 1993; Inan, 1996a; Inan, 1996b; Inan et al., 1996; Sirel, 1996; *Meric et al., 1997; Özcan and Özkan-Altiner, 1997; Özcan and Özkan-Altiner, 1999b; Özkan-Altiner and Özcan, 1999; Meric and Görmüs, 2001; Meric et al., 2001

Romania (41): *Renz, 1936; Hamaoui and Fourcade, 1973; Ion, 1975; Loeblich and Tappan, 1988

N-India (45): Gaetani et al., 1980

Pakistan (46): *Renz, 1936; Nagappa, 1959; McGowran, 1968; Kureshy, 1977; Kureshy, 1980; Weiss, 1993; Ismail and Boukhary, 2001

Tibet (48): *Renz, 1936; Nagappa, 1959; Ellis and Messina, 1967; Mu et al., 1973; Ho et al., 1976; Sun and Zhang, 1983; Wen, 1987; Loeblich and Tappan, 1988; Willems et al., 1996; Ismail and Boukhary, 2001

Iran (56): Douvillé, 1904; *Renz, 1936; Cox, 1937; Al-Omari and Sadek, 1976; Kalantari, 1976; Hottinger, 1981; Loeblich and Tappan, 1988; Sartorio and Venturini, 1988; Fleury et al., 1990; Meric et al., 2001

Netherlands (57): Grossouvre, 1904; *Renz, 1936; Visser, 1951; Papp, 1954; Renz, 1955; Hofker, 1966; Ellis and Messina, 1967; Loeblich and Tappan, 1988; Ismail and Boukhary, 2001

Switzerland (58): Renz, 1936; Visser, 1951; Ellis and Messina, 1967; Loeblich and Tappan, 1988; Ismail and Boukhary, 2001

Austria (59): Papp, 1954

Croatia (62): Bignot, 1972

Slovenia (63): Bignot, 1972; Fleury et al., 1990

Philippines (65): *Hashimoto et al., 1978a; *Hashimoto et al., 1978b; Hashimoto and Matsumaru, 1981; *Hashimoto, 1982; Hashimoto and Matsumaru, 1984

Cyprus (69): *Renz, 1936

Slovakia (71): Neumann, 1993

Mexico: Butterlin, 1981

Caribbean: Butterlin, 1981; Caus and Hottinger, 1986

Tethys: Caus and Hottinger, 1986

Middle East: Dilley, 1973; Caus and Hottinger, 1986

Pyrenees: Caus et al., 1996

America: Dilley, 1973

Europe: Dilley, 1973

N Africa: Dilley, 1973

S USSR: Dilley, 1973

India: Renz, 1936; Dilley, 1973; Loeblich and Tappan, 1988

Adriatic Sea: Sartorio and Venturini, 1988

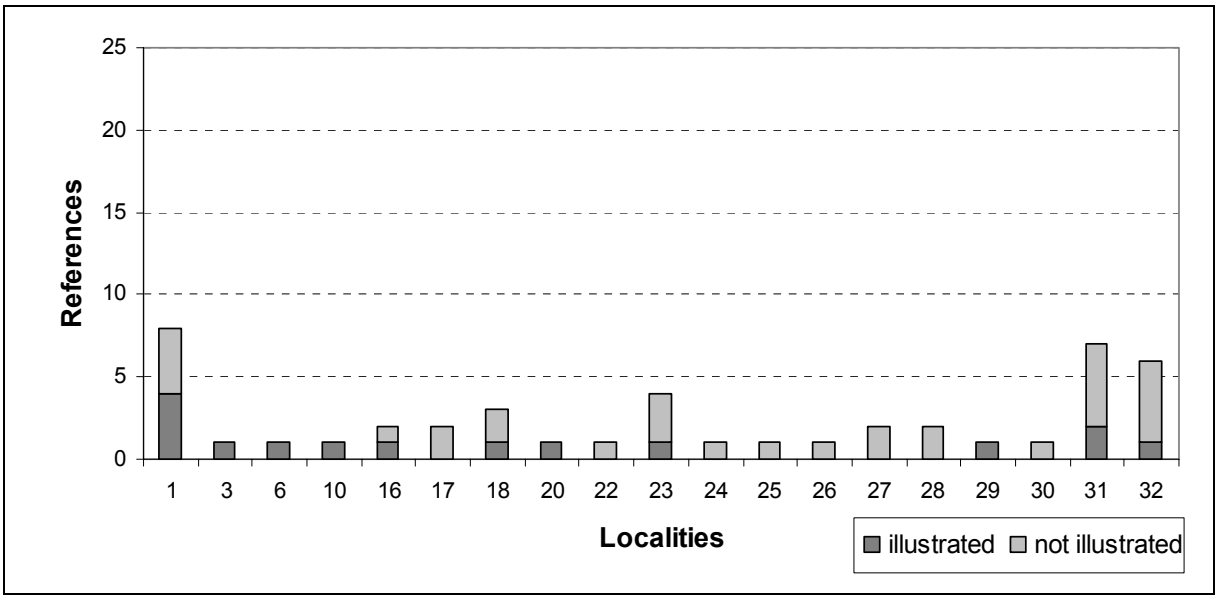

Figure 8.55a: Number of illustrated and not illustrated references in the localities of *Omphalocyclus*

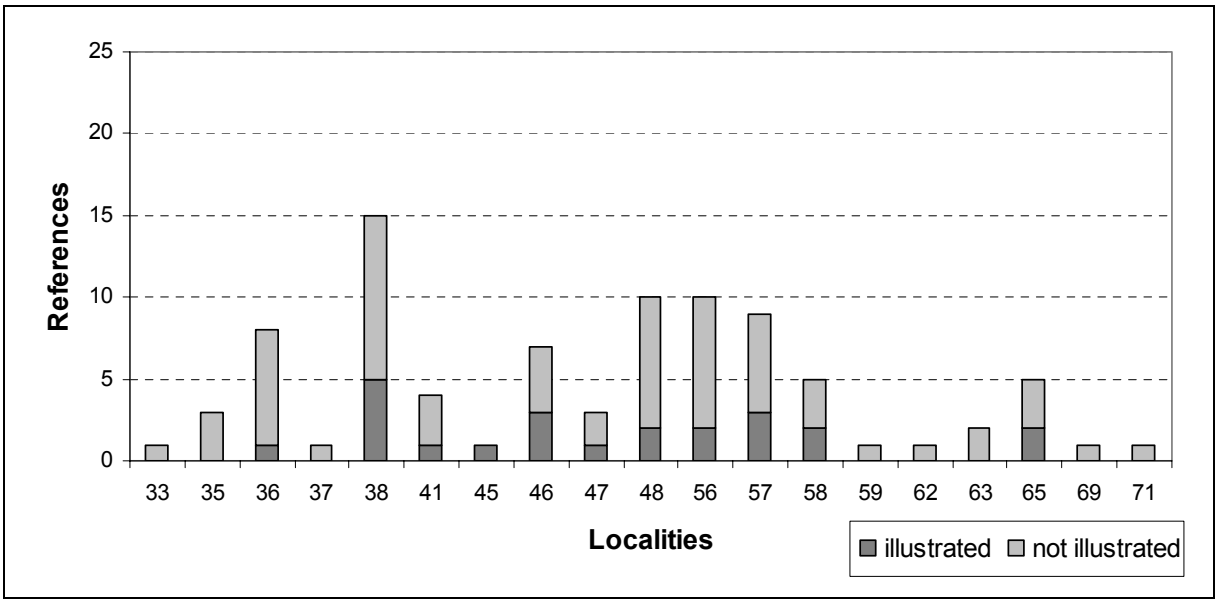

Figure 8.55b: Number of illustrated and not illustrated references in the localities of *Omphalocyclus*

For reasons of clarity (Fig 8.56) the following locations were plotted together: Belgium (30) and the Netherlands (57) as location 80; Germany (33), Switzerland (58) and Austria (59) as location 82; Yugoslavia (37), Croatia (62) and Slovenia (63) as location 84.

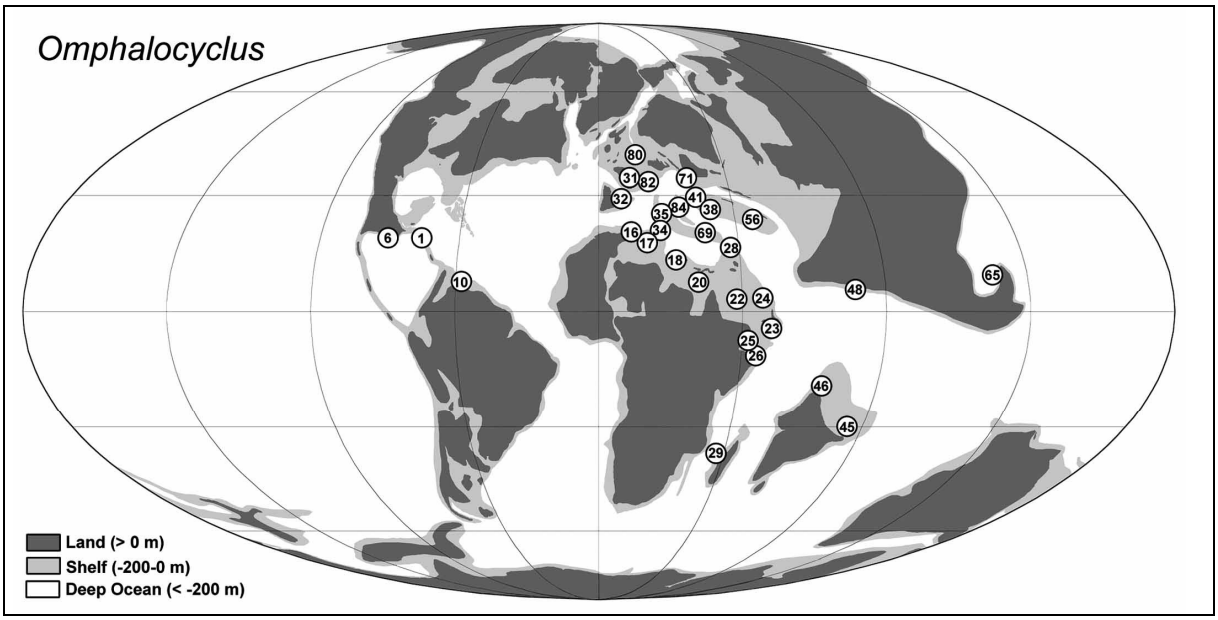

Figure 8.56: Global distribution of *Omphalocyclus* in the Late Cretaceous

Omphalocyclus shows a global circumtropical distribution. It occurs in all faunal provinces, with highest densities in the European and African Tethys. The southernmost occurrence is reported from Madagascar (29; Abramovich et al., 2002), the northernmost from the Netherlands (57; Grossouvre, 1904; Renz, 1936; Visser, 1951; Papp, 1954; Renz, 1955; Hofker, 1966; Ellis and Messina, 1967; Loeblich and Tappan, 1988; Ismail and Boukhary, 2001) and Belgium (30; Hofker, 1966). In the Caribbean region *Omphalocyclus* occurs only in Cuba (1; Caudri, 1944; Brönnimann, 1954; Küpper, 1954; Renz, 1955; Hanzawa, 1962; Seiglie and Ayala-Castanares, 1963; Loeblich and Tappan, 1988; Ismail and Boukhary, 2001), Jamaica (6; Gunter et al., 2002), and Venezuela (10; Renz, 1955). From the Asian Faunal Province *Omphalocyclus* is reported from Northern India (45; Gaetani et al., 1980), Pakistan (46; Renz, 1936; Nagappa, 1959; McGowran, 1968; Kureshy, 1977, 1980; Weiss, 1993; Ismail and Boukhary, 2001), Tibet (48; Renz, 1936; Nagappa, 1959; Ellis and Messina, 1967; Mu et al., 1973; Ho et al., 1976; Sun and Zhang, 1983; Wen, 1987; Loeblich and Tappan, 1988; Willems et al., 1996; Ismail and Boukhary, 2001) and the Philippines (65; Hashimoto et al., 1978a, 1978b; Hashimoto and Matsumaru, 1981; Hashimoto, 1982; Hashimoto and Matsumaru, 1984).

8.14.6 Remarks

Loeblich and Tappan (1988) misquote Hottinger (1981) when they report *Omphalocyclus macroporus* (Lamarck) from the Holocene of Iran, which is actually of Maastrichtian age.
Meric and Coruh (1991) interpret the specimens of *Orbitoides concavatus* Rahaghi from the Campanian of Iran (Rahaghi, 1976; pl. 4, figs. 11-25) as a primitive type of *Omphalocyclus* and establish the new genus *Praeomphalocyclus concavatus* (Rahaghi) for these specimens.

8.15 *Clypeorbis*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family LEPIDORBITOIDIDAE Vaughan, 1933
Subfamily CLYPEORBINAE Sigal, 1952
Genus CLYPEORBIS Douvillé, 1915

8.15.1 Description

In 1915, Douvillé established the subgenus *Clypeorbis*, which was previously regarded to be a member of the genus *Orbitoides* (*Orbitoides mamillata* Schlumberger, 1903) and was documented from Cretaceous deposits of Gensac (S France). Later Douvillé (1920) raised *Clypeorbis* from the level of a subgenus to the level of a genus.
The perforate test of *Clypeorbis* is subtriangular in lateral view and circular in outline. The dimension of the diameter varies between 2 and 8 mm (Loeblich and Tappan, 1988). The test is divided by an equatorial layer, which is bend towards the apex. The equatorial chambers become hexagonal towards the periphery. On both sides of the equatorial layer pillars cross the lateral chambers. On the more elevated side, a thick umbilical pillar extends from the juvenarium in the equatorial chamber to the apex.

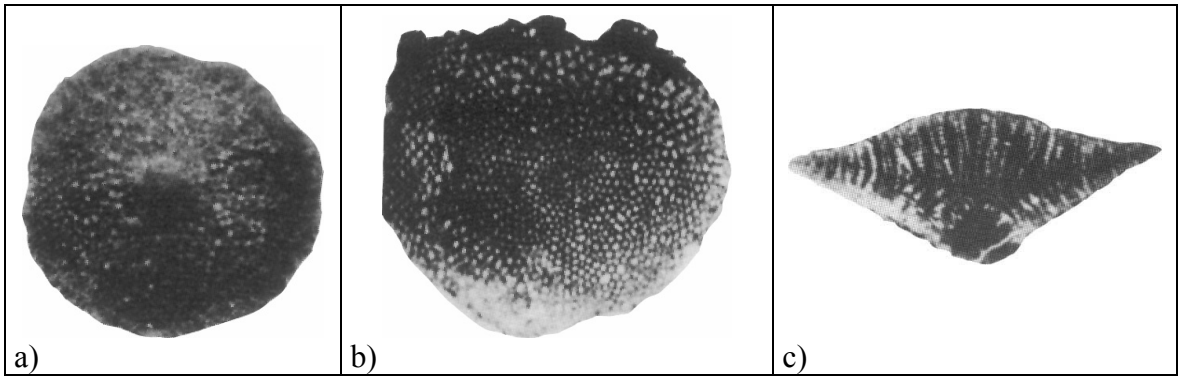

Figure 8.57: a) - c) *C. mammilatus* (Schlumberger) a) - c) Loeblich and Tappan, 1988

8.15.2 Species

Type species: *Orbitoides mammillatus* Schlumberger, 1903 (as *mamillata*); p. 259; pl. 8, figs. 17-20

Synonyms: *Orbitoides* (*Clypeorbis*) 1915; p. 669; figs. 18-20
Clypeorbis Douvillé, 1920[+]

Species: *C. mammillatus* (Schlumberger, 1903) (*Orbitoides mamillata* Schlumberger, 1903; p. 259; pl. 8, figs. 17-20)
C. mamillata (Schlumberger, 1903)

8.15.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
FRA (31)				X	
ESP (32)				X	
GRC (36)				X	
TUR (38)				X	
SVN (63)				X	
Sa-ITA (72)				X	

Figure 8.58: Stratigraphic range of the genus *Clypeorbis* in its reported localities

Clypeorbis seem to be restricted to the Maastrichtian.

8.15.4 Biology

Clypeorbis mostly occurs in association with *Orbitoides*, *Siderolites*, *Omphalocyclus*, *Sirtina*, *Lepidorbitoides*, and *Hellenocyclina*. The distribution of *Clypeorbis* in various types of sedimentary environments points to a wide range of ecological preferences for this genus. The association with *Orbitoides* and *Lepidorbitoides* shows a great range in depth preferences, as *Orbitoides* usually occurs in shallower regions than *Lepidorbitoides*. *Clypeorbis* however, is also associated with *Siderolites* and *Omphalocyclus*. *Siderolites* usually occurs in environments of high water energy while *Omphalocyclus* is restricted to sheltered shelf areas. Overall, this points to a distinct adaptational flexibility.

8.15.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Clypeorbis* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

France (31): *Schlumberger, 1903; Hanzawa, 1962; Loeblich and Tappan, 1988; Meertens and Drooger, 1988; Hottinger and Caus, in press

Spain (32): Caus, 1988; Loeblich and Tappan, 1988; Hottinger and Caus, in press

Greece (36): Mavrikas et al., 1994

Turkey (38): Meric and Coruh, 1991; Özcan and Özkan-Altiner, 1999b; Özkan-Altiner and Özcan, 1999

Slovenia (63): Bignot, 1972

Sardinia (72): Busulini et al., 1984

Tethys: Caus and Hottinger, 1986

Pyrenees: Neumann, 1993

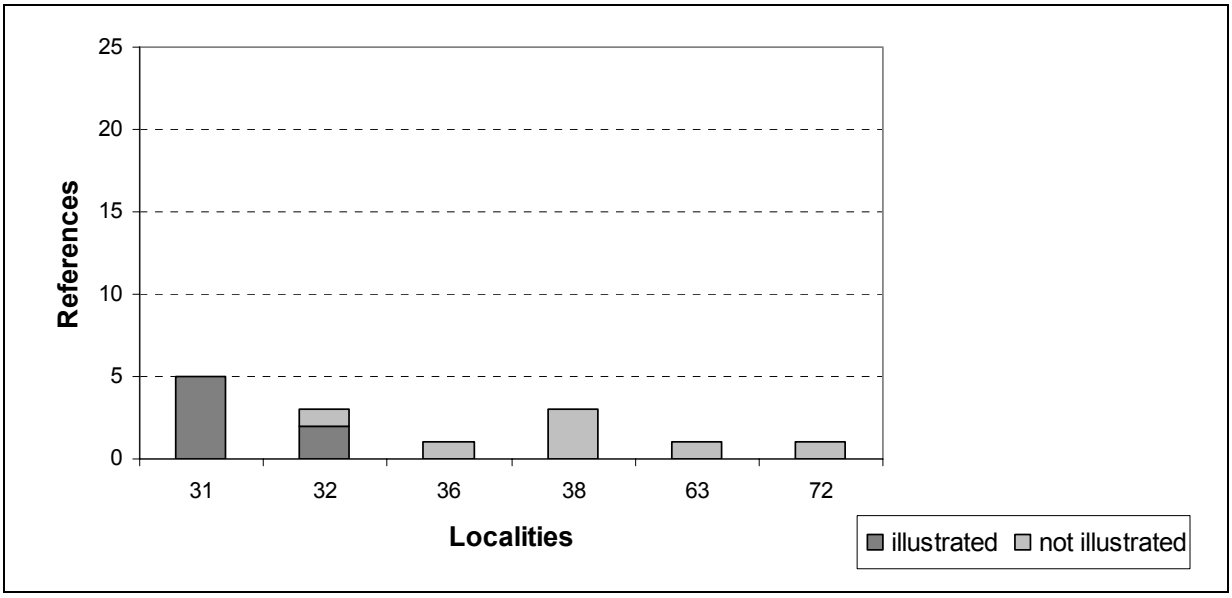

Figure 8.59: Number of illustrated and not illustrated references in the localities of *Clypeorbis*

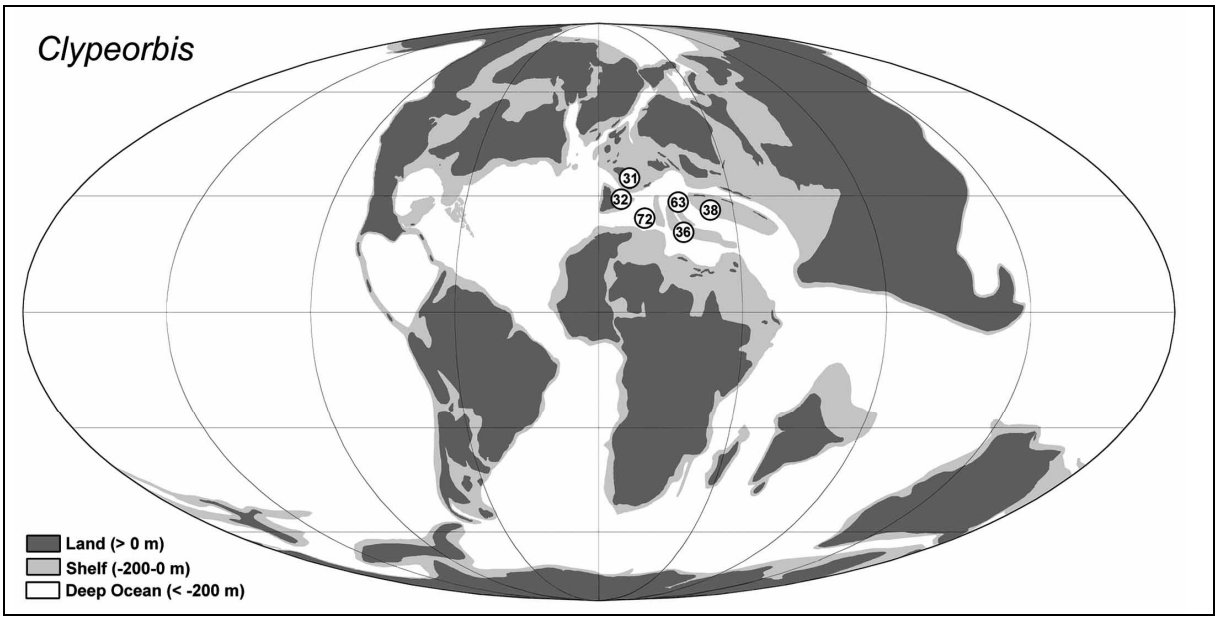

Figure 8.60: Global distribution of *Clypeorbis* in the Late Cretaceous

Clypeorbis shows a superregional distribution in the European Faunal Province. It occurs in the western part (France, Spain) as well as in the eastern part of Europe (Slovenia, Greece and Turkey). The stratigraphically first occurrence in the Campanian of Spain (Caus, 1988) might be a hint to an origination center in the Pyrenean basin with a subsequent distribution to the east.

8.15.6 Remarks

8.16 *Sirtina*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family LEPIDORBITOIDIDAE Vaughan, 1933
Subfamily CLYPEORBINAE Sigal, 1952
Genus SIRTINA Brönnimann and Wirz, 1962

8.16.1 Description

Sirtina was first described by Brönnimann and Wirz (1962) based on material from the Early Maastrichtian of the Pan American International Oil Company's well A-1, in the Persian Gulf, Iran. The test of *Sirtina* is lenticular. The diameter is up to 2 mm (Loeblich and Tappan, 1988), the thickness is 0.2-0.65 mm (Brönnimann and Wirz, 1962). In the juvenarium the chambers are arranged trochospirally, later nearly planispiral involute. The test consists of three to five whorls with broad low chambers. In the last whorl 12-28 chambers are present. The septa are perpendicular to the periphery, forming nearly rectangular chambers. On the ventral side of the test thick pillars protrude from the juvenarium towards the periphery and appear as thick knobs on the surface of the test. On the dorsal side lateral chambers are intercalated by pillars. There is no equatorial layer present.

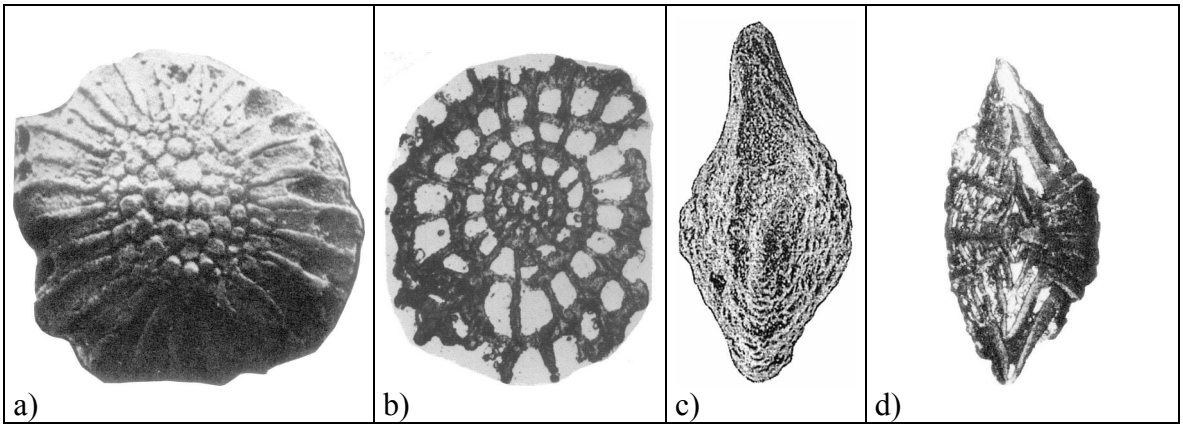

Figure 8.61: a), b), d) *S. granulata* (Rahaghi), c) *S. orbitoidiformis* Brönnimann and Wirz; a), b), d) van Gorsel, 1974, c) Bignot and Neumann, 1997

8.16.2 Species

Type species: *Sirtina orbitoidiformis* Brönnimann and Wirz, 1962; p. 520; figs. 2-6

Synonyms: *Sirtina* Brönnimann and Wirz, 1962; p. 520

Neumannites granulata Rahaghi 1976, pl. 2(12-22)

Iranites ornatus Rahaghi, 1976, pl. 3, figs. 1-10

Species: *S. orbitoidiformis* Brönnimann and Wirz, 1962; p. 520; figs. 2-6

S. granulata (Rahaghi, 1976) (*Neumannites granulata* Rahaghi, 1976; pl. 2, figs. 12-22)

8.16.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
LBY (18)		X	X	X	
MDG (29)				X	
BEL (30)			X		
FRA (31)		X	X	X	
ESP (32)		X	X	X	
GRC (36)				X	
TUR (38)			X	X	
IRN (56)		X	X	X	
AUT (59)			X		

Figure 8.62: Stratigraphic range of the genus *Sirtina* in its reported localities

In the Santonian *Sirtina* is reported from Libya (18; Loeblich and Tappan, 1988), France (31; Loeblich and Tappan, 1988), Spain (32; Caus, 1988) and Iran (56; Loeblich and Tappan, 1988). As these localities are widely dislodged, it might be possible that there are also forms of pre-Santonian age, which are not yet recorded. In the Campanian the genus occurs beyond these localities in Belgium (30; Bignot and Neumann, 1997), Austria (59; Caus et al., 1996) and Turkey (38; Özcan, 1993). Maastrichtian records of *Sirtina* are reported from Libya (18; Loeblich and Tappan, 1988), Madagascar (29; Abramovich et al., 2002), France (31; Loeblich and Tappan, 1988), Spain (32; Caus, 1988), Greece (36; Mavrikas et al., 1994), Turkey (38; Sirel, 1991; Özcan, 1993; Inan, 1996a; Sirel, 1996; Özcan and Özkan-Altiner, 1999b; Hottinger and Caus, in press) and Iran (56; Loeblich and Tappan, 1988). The place of origin of *Sirtina* cannot be identified to date, as there are Santonian records from the eastern and the western side of the Tethys.

8.16.4 Biology

In the western part of the Tethys *Sirtina* is associated with *Dictyopsella* (Belgium; Campanian), *Orbitoides* and *Lepidorbitoides* (Austria; Late Campanian).

In the eastern part of the Tethys the associated larger foraminifera are *Siderolites*, *Pseudedomia*, *Orbitoides*, *Lepidorbitoides*, *Hellenocyclina* (Greece; Maastrichtian) as well as *Cuneolina*, *Clypeorbis*, *Hellenocyclina*, *Laffitteina*, *Lepidorbitoides*, *Loftusia*, *Orbitoides*, *Omphalocyclus*, and *Siderolites* (Turkey; Maastrichtian).

The preferred habitat of *Sirtina* depends on the location. In Spain, *Sirtina* seems to have lived on a carbonate platform in the deeper protected shelf (40-60 m), in reefs, shoals and bars as well as on the open marine shelf (Caus, 1988). From Greece it is reported from limestones together with large rudists (Mavrikas et al., 1994). Brönnimann and Wirz (1962) report *Sirtina* from the inner, probably littoral shelf and from the middle to outer shelf of Libya. From Iran they report it from the middle to outer shelf.

The environment in Turkey is interpreted as a shallow water habitat (Sirel, 1996; Özcan and Özkan-Altiner, 1997), in a back reef (Inan, 1996a), or a location where the deep marine grades into a turbiditic zone (Özcan and Özkan-Altiner, 1997).

Hottinger (1997) places the preferred habitat of *Sirtina* in the lower photic zone between 80 m and 120-140 m depth.

8.16.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Sirtina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Libya (18): Brönnimann and Wirz, 1962; Loeblich and Tappan, 1988

Madagascar (29): Abramovich et al., 2002

Belgium (30): Bignot and Neumann, 1997

France (31): Loeblich and Tappan, 1988; Bignot and Neumann, 1997; Hottinger and Caus, in press

Spain (32): Caus, 1988

Greece (36): Mavrikas et al., 1994

Turkey (38): Meric and Coruh, 1991; Sirel, 1991; Özcan, 1993; Inan, 1996a; Inan, 1996b; Sirel, 1996; Özcan and Özkan-Altiner, 1997; Özcan and Özkan-Altiner, 1999b; Hottinger and Caus, in press

Iran (56): Brönnimann and Wirz, 1962; Rahaghi, 1976; Loeblich and Tappan, 1988

Austria (59): Caus et al., 1996

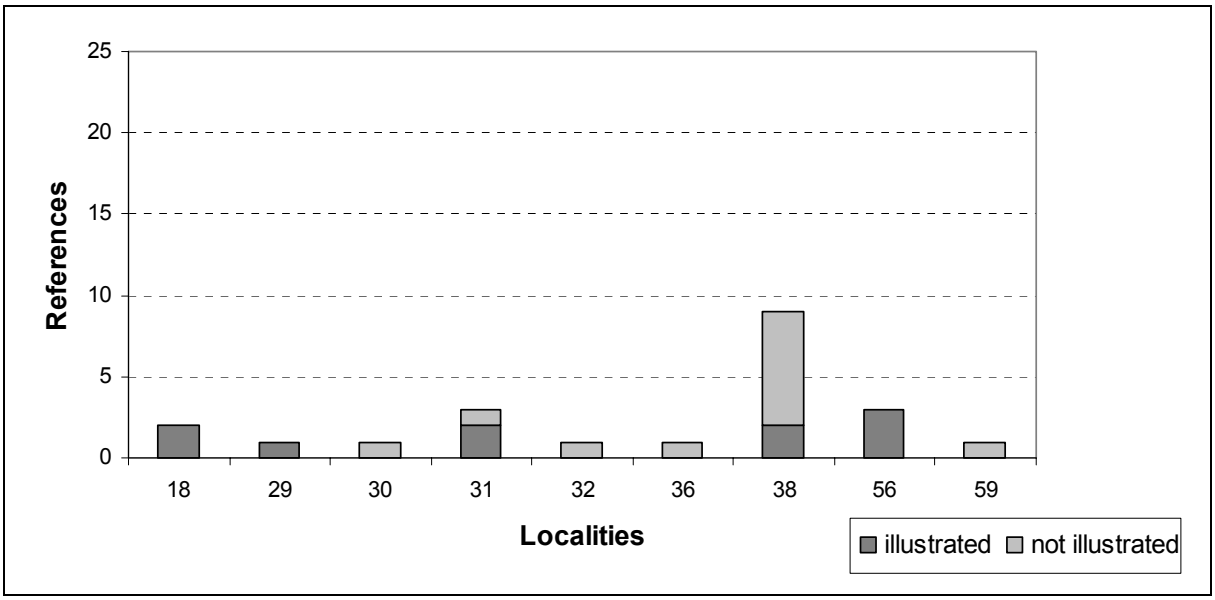

Figure 8.63: Number of illustrated and not illustrated references in the localities of *Sirtina*

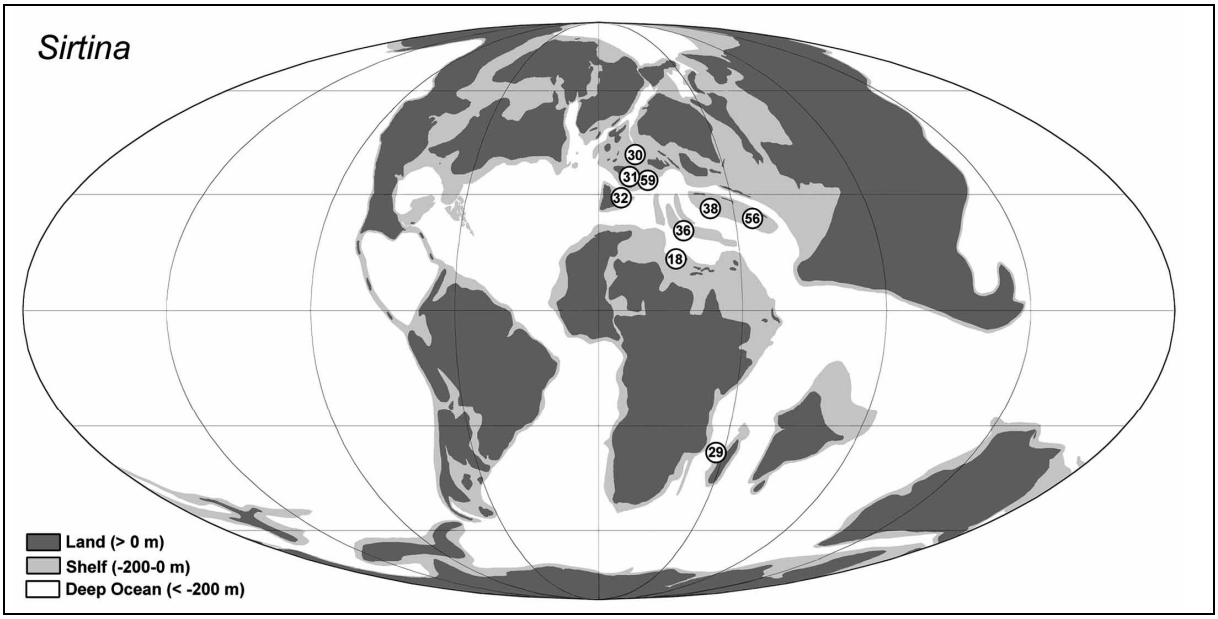

Figure 8.64: Global distribution of *Sirtina* in the Late Cretaceous

In the Late Cretaceous *Sirtina* shows a superregional distribution. It occurs both in the European and in the African parts of the Tethys. These occurences seem to be divided in a western region in the area of Belgium (30), France (31), Spain (32) and Austria (59) and an eastern region, which comprises Greece (36), Turkey (38), Iran (56) and Libya (18). Further there is a record from Madagascar in the Indian Ocean (29).

8.16.6 Remarks

Rahaghi (1976) reports *Neumannites granulata* n. sp. and *Iranites ornatus* n. sp. from the Late Cretaceous (Campanian-Maastrichtian) of Iran and Libya. Both species show distinct features of *Sirtina*. Loeblich and Tappan (1988) included these species in the genus *Sirtina*. *Iranites ornatus* is now considered to be a *Sirtina orbitoidiformis*.

8.17 *Helicorbitoides*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family LEPIDORBITOIDIDAE Vaughan, 1933
Subfamily LEPIDORBITOIDINAE Vaughan, 1933
Genus HELICORBITOIDES MacGillavry, 1963

8.17.1 Description

In 1953, Papp and Küpper discovered the new species *Pseudorbitoides longispiralis* in Campanian material of Silberegg, Austria. Due to the morphological differences between Caribbean and European specimens MacGillavry (1963) established the new genus *Helicorbitoides*. The test of *Helicorbitoides* is lenticular with a nearly circular outline. The dimensions are species-specific. The diameter ranges between 2 mm and 4.5 mm, the thickness varies between 1 mm and 2 mm (van Gorsel, 1973b). The chambers are arranged in a spiral, which widens after the first whorl. The chambers are strongly arcuated. The surface is covered with pustules, which result from pillars extending from the juvenile part to the surface.

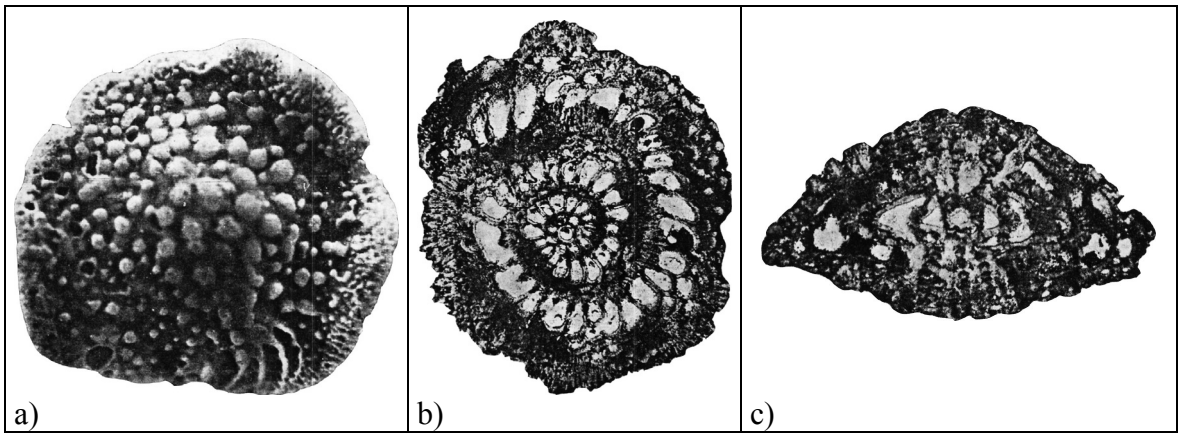

Figure 8.65: a) - c) *H. voigti* van Gorsel; a) - c) van Gorsel, 1973b

8.17.2 Species

Type species: *Pseudorbitoides longispiralis* Papp and Küpper, 1953c; p. 352; pl. 2, fig. 3
Synonyms: *Helicorbitoides* MacGillavry, 1963^{+}

Species: *H. boluensis* Sirel, 1995; p. 87; pl. 1, figs. 1-11; pl. 2, figs. 1-11

H. longispiralis (Papp and Küpper, 1953c) (*Pseudorbitoides longispiralis* Papp and Küpper, 1953c; p. 352; pl. 2, fig. 3)

H. voigti van Gorsel, 1973b, p. 276; pl. 1, figs. 2-4; pl. 2, figs. 1-3; pl. 3, figs. 2-6

Pseudorbitoides longispiralis Papp and Küpper, 1953c, p. 352; pl. 2, fig. 3

8.17.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
FRA (31)			X		
TUR (38)			X		
SWE (40)			X		
CHE (58)			X		
AUT (59)			X	X	

Figure 8.66: Stratigraphic range of the genus *Helicorbitoides* in its reported localities

The main distribution of *Helicorbitoides* is in the Campanian of France (31; van Gorsel, 1973b), Turkey (38; Sirel, 1995) Sweden (40; van Gorsel, 1973b; Loeblich and Tappan, 1988; Sirel, 1995; Bignot and Neumann, 1997), Switzerland (58; Loeblich and Tappan, 1988) and Austria (59; Wannier, 1983; Loeblich and Tappan, 1988). The only record of *Pseudorbitoides longispiralis* of Maastrichtian age stems from Austria (59; Papp and Küpper, 1953b; Papp, 1954; Brönnimann, 1955; Papp, 1955a, 1955b; Loeblich and Tappan, 1988; Neumann, 1993; Sirel, 1995). *Helicorbitoides* occur in several European locations at the same time so that the origination site is not clear.

8.17.4 Biology

Helicorbitoides was found in association with specimens of *Siderolites* and *Orbitoides* and also with *Orbitoides* and *Nummofallotia*. This indicates both a high energetic environment with hard substrate (*Siderolites*) and a low energetic environment with soft substrate (*Nummofallotia*).

8.17.5 Biogeographic Distribution and Faunal Province

In the Late Cretaceous *Helicorbitoides* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

France (31): van Gorsel, 1973b

Turkey (38): Sirel, 1995

Sweden (40): van Gorsel, 1973b; Loeblich and Tappan, 1988; Sirel, 1995; Bignot and Neumann, 1997

Switzerland (58): Wannier, 1983; Loeblich and Tappan, 1988

Austria (59): Papp and Küpper, 1953b; Papp, 1954; Brönnimann, 1955; Papp, 1955a; Papp, 1955b; Loeblich and Tappan, 1988; Neumann, 1993; Sirel, 1995

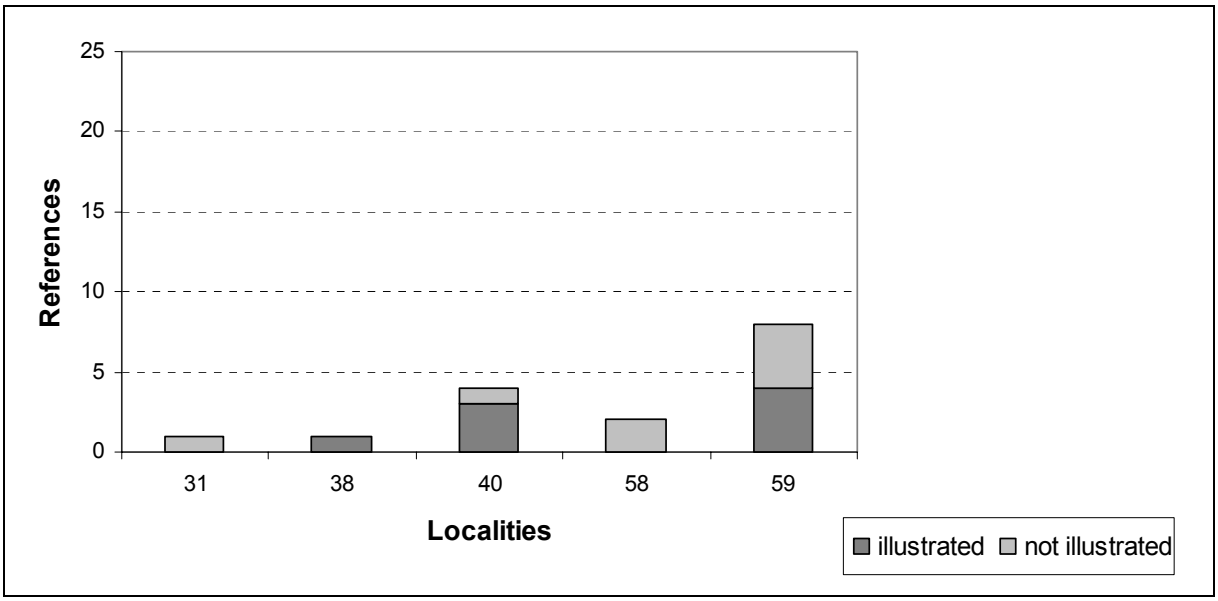

Figure 8.67: Number of illustrated and not illustrated references in the localities of *Helicorbitoides*

For reasons of clarity the locations Switzerland (58) and Austria (59) are plotted together in location 82 in figure 8.68.

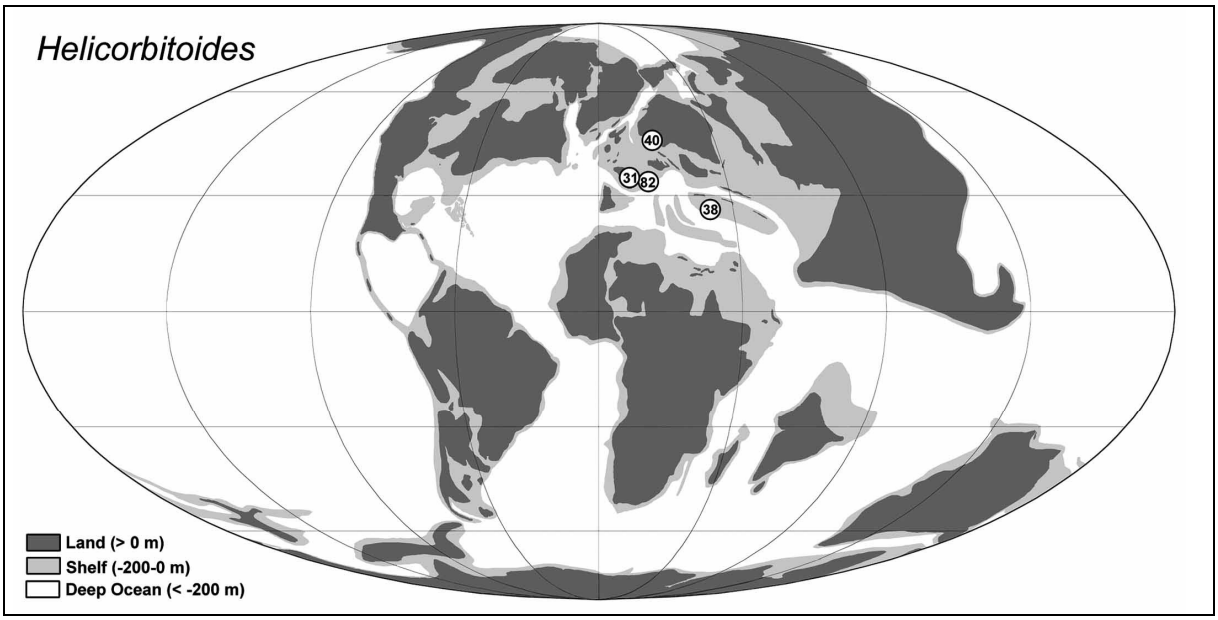

Figure 8.68: Global distribution of *Helicorbitoides* in the Late Cretaceous

In the Late Cretaceous *Helicorbitoides* only occurs with a superregional distribution in the European Tethys. In the western part it is mentioned from Sweden (40), France (31), Switzerland (58), and Austria (59). Further records in the eastern part of the Tethys include Turkey (38).

8.17.6 Remarks

The phylogenetic relations of *Helicorbitoides* are discussed in detail by MacGillavry (1963) and van Gorsel (1973b).

Bignot and Neumann (1997) report *Helicorbitoides longispina* (Papp and Küpper, 1953) from Stafersvad, Sweden, but it seems to be a misquotation and that it should be *Helicorbitoides longispiralis* (Papp and Küpper, 1953).

8.18 *Hellenocyclina*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family LEPIDORBITOIDIDAE Vaughan, 1933
Subfamily LEPIDORBITOIDINAE Vaughan, 1933
Genus HELLENOCYCLINA Reichel, 1949

8.18.1 Description

Reichel defined the genus *Hellenocyclina* in the year 1949 based on material from Greece. The perforate test of *Hellenocyclina* is lenticular with an irregular lobate outline. The diameter lies between 0.5 and 0.15 mm (Dupeuble et al., 1972). In horizontal section the bilocular embryo is visible. The nepionic stage consists of two spirals that depend on two apertures in the chambers. The following equatorial chambers are arched. In axial section the test is divided by an equatorial layer, but no lateral chambers are visible.

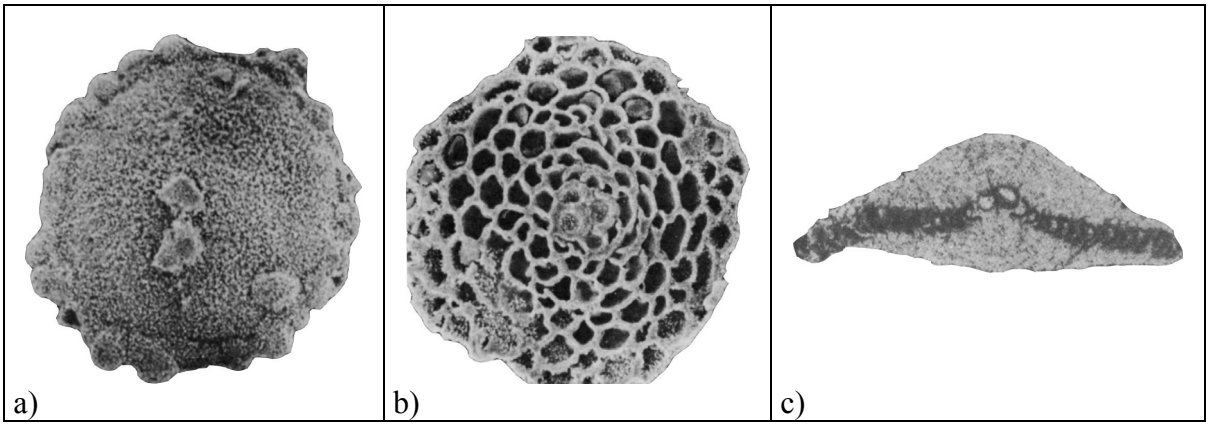

Figure 8.69: a) - c) *H. beotica* Reichel; a), b) Dupeuble et al., 1972, c) Loeblich and Tappan, 1988

8.18.2 Species

Type species: *Hellenocyclina beotica* Reichel, 1949[+]
Synonyms: *Hellenocyclina* Reichel, 1949[+]
Species: *H. beotica* Reichel, 1949[+]

8.18.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
MAR (15)			X	X	
FRA (31)			X	X	
ESP (32)				X	
GRC (36)				X	
YUG (37)				X	
TUR (38)				X	
IRN (56)				X	
NLD (57)				X	
CHE (58)				X	
Tethys		X	X		

Figure 8.70: Stratigraphic range of the genus *Hellenocyclina* in its reported localities

The first occurrence of *Hellenocyclina* is in the Santonian, where it is reported from the Tethyan region (Caus and Hottinger, 1986). In the Campanian it appears in France (31; Loeblich and Tappan, 1988) and probably also in Morocco (15) and in western and southern Europe (Fleury et al., 1985). In the Maastrichtian it is widely distributed between Morocco (15; Fleury et al., 1985), the Netherlands (57; Dupeuble et al., 1972; Fleury et al., 1985; Loeblich and Tappan, 1988) and Iran (56; Fleury et al., 1985). *Hellenocyclina* seem to be originated in the western side of the Tethys in the area between Morocco and France.

8.18.4 Biology

Hellenocyclina often occurs in association with *Orbitoides*, *Lepidorbitoides*, *Omphalocyclus*, *Siderolites*, and *Sirtina*. While Hohenegger (1999) describes the habitat of *Hellenocyclina* as a deeper environment, Hottinger (1997) divides the preferred habitat into two niches. The first is in the upper photic zone at depths of 40 to 80 m, where *Hellenocyclina* is associated with *Omphalocyclus*, *Orbitoides*, and *Lepidorbitoides*. The second niche is in the lower photic zone at depths of 80 to 140 m where it is associated with the larger foraminifera *Sirtina* and *Lepidorbitoides*.

8.18.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Hellenocyclina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Morocco (15): Fleury et al., 1985

France (31): Dupeuble et al., 1972; Fleury et al., 1985; Loeblich and Tappan, 1988

Spain (32): Azéma et al., 1979; Fleury et al., 1985

Greece (36): Loeblich and Tappan, 1988; Mavrikas et al., 1994

Yugoslavia (37): Fleury et al., 1985

Turkey (38): Sirel, 1991; Inan, 1996a; Sirel, 1996; Meric et al., 1997; Özcan and Özkan-Altiner, 1997; Özcan and Özkan-Altiner, 1999b; Özkan-Altiner and Özcan, 1999

Iran (56): Fleury et al., 1985

Netherlands (57): Dupeuble et al., 1972; Fleury et al., 1985; Loeblich and Tappan, 1988

Switzerland (58): Fleury et al., 1985

Tethys: Caus and Hottinger, 1986

Western and Southern Europe: Fleury et al., 1985

Europe: Hanzawa, 1962

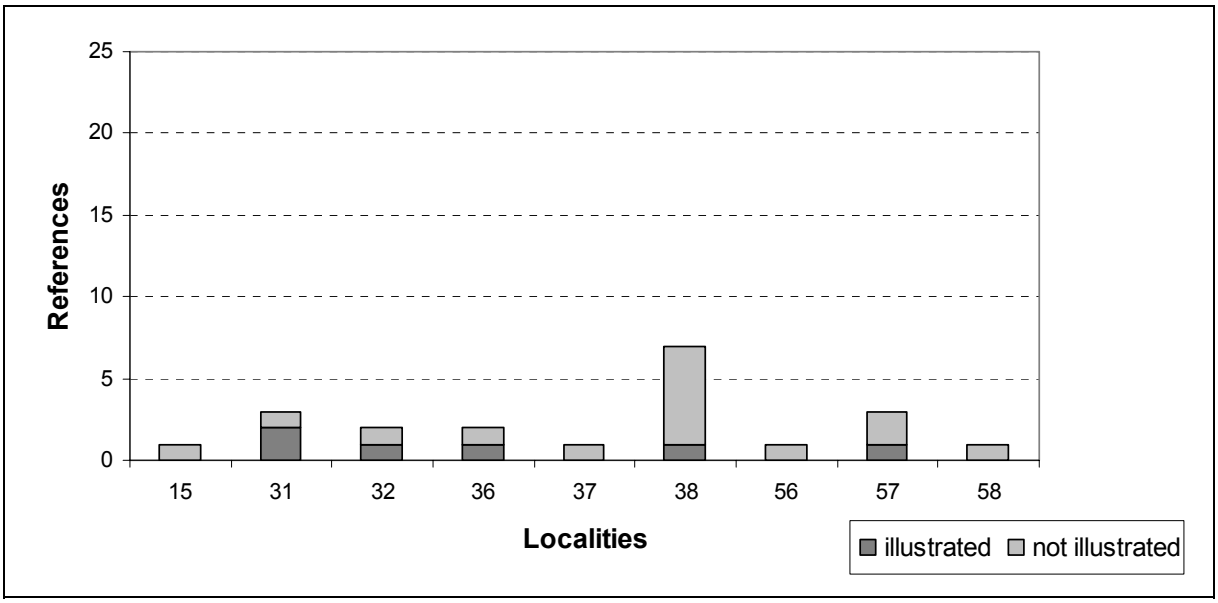

Figure 8.71: Number of illustrated and not illustrated references in the localities of *Hellenocyclina*

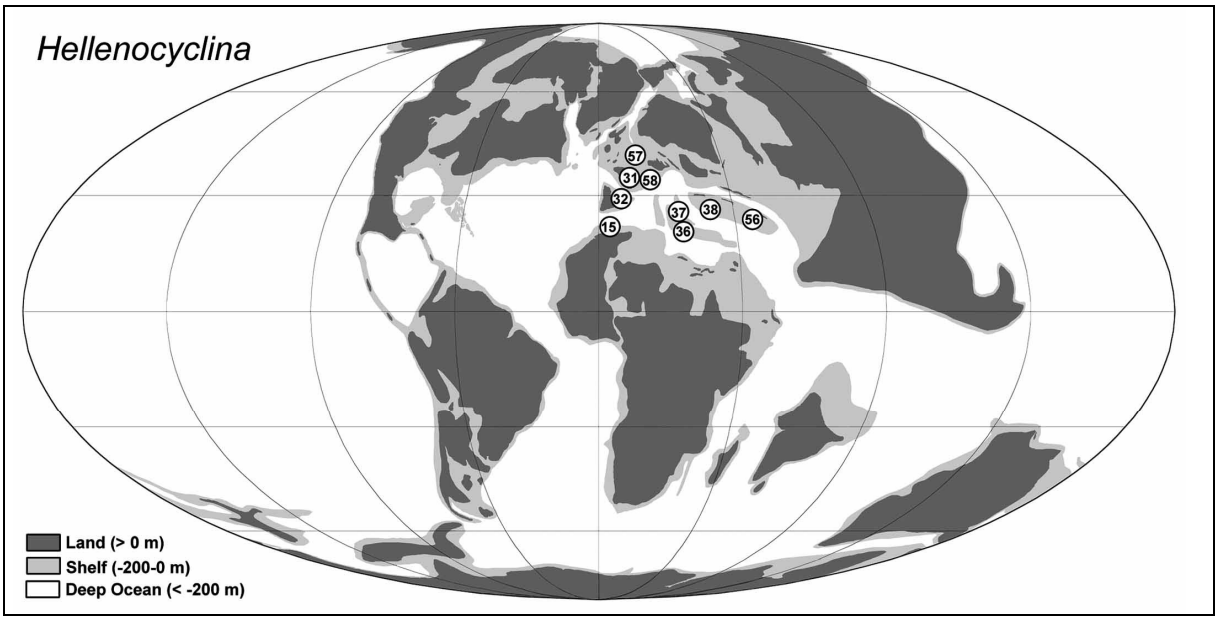

Figure 8.72: Global distribution of *Hellenocyclina* in the Late Cretaceous

Hellenocyclina shows a superregional distribution in the European Tethys and it is also reported from Morocco (15) in the African Tethys. The occurrence in the European Tethys is both in the western and the eastern region. The western region comprises the Netherlands (57), France (31), Spain (32), and Switzerland (58), the eastern region Yugoslavia (37), Greece (36), Turkey (38) and Iran (56). As the stratigraphically first occurrences are from the Campanian of France and Morocco it is possible that the center of origin lies in this part of the Tethys with a subsequent distribution to the east.

8.18.6 Remarks

8.19 *Lepidorbitoides*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family LEPIDORBITOIDIDAE Vaughan, 1933
Subfamily LEPIDORBITOIDINAE Vaughan, 1933
Genus LEPIDORBITOIDES Silvestri, 1907

8.19.1 Description

Silvestri established the generic name of *Lepidorbitoides* in the year 1907. The type species *Orbitoides socialis* however was collected by Leymerie (1851) based on Maastrichtian material of SW France. The test of *Lepidorbitoides* is flattened lenticular with a diameter of up to 10 mm (rarely up to 25 mm, Loeblich and Tappan, 1988). An equatorial layer divides the test. The embryo is bilocular, with a nearly circular proloculus and a reniform deuteroconch. Numerous small pustules cover the exterior of the test.

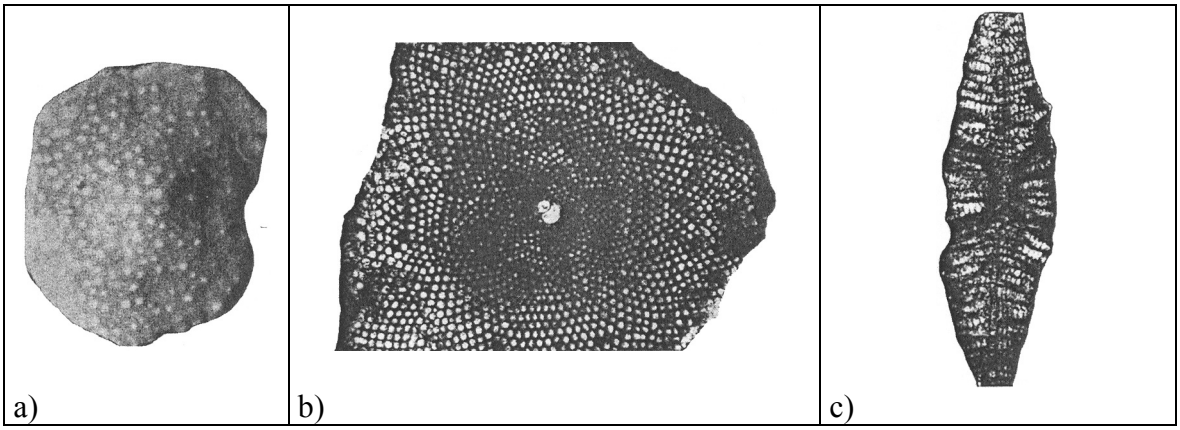

Figure 8.73: a) - c) *L. minor* (Schlumberger); a) - c) Abdelghany, 2003

8.19.2 Species

Type species: *Orbitoides socialis* Leymerie, 1851[+]
Synonyms: *Lepidorbitoides* Silvestri, 1907
Orbitoides socialis Leymerie, 1851[+]
Species: *L. bisambergensis* (Jaeger, 1914)[+]
L. blanfordi Rao[+]
L. campaniensis van Gorsel, 1973[+]

L. floridensis Cole[+]

L. *gangdisicus* Liu[+]

L. inornata Rao[+]

L. macgillavryi Thiadens, 1937[+]

L. minor (Schlumberger, 1901) [+]

L. palmeri Thiadens, 1937[+]

L. paronai Silvestri[+]

L. pembergeri (Papp, 1954)[+]

L. planasi Rutten, 1935[+]

L. rutteni Thiadens, 1937[+]

L. schenki Brönnimann[+]

L. socialis (Leymerie, 1851) [+]

L. zhongbaensis Liu[+]

8.19.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)				X	
F-USA (2)	?	?	?	?	
VEN (10)				X	?
COL (11)				X	
DWI (13)					?
LBY (18)				X	
OMN (23)			X	X	
QAT (24)			?	?	
YEM (25)				X	
SOM (26)			?	?	
SYR (28)			?	?	
MDG (29)				X	
FRA (31)			X	X	
ESP (32)			X	X	
GER (33)			X	X	
ITA (35)			X	X	
GRC (36)			X	X	
YUG (37)	?	?	?	?	
TUR (38)			X	X	
ROM (41)				X	
RUS (42)				X	
S-IND (44)				X	
PAK (46)			X	X	
IDN (47)				X	
T-CHN (48)			?	?	

KIR (49)				X	
NRU (50)				X	
IRN (56)				X	
NLD (57)				X	?
CHE (58)			X	X	
AUT (59)			X	X	
MKD (60)				X	
SVN (63)				X	
MYS (64)			X	X	
PHL (65)				X	?
H-USA (67)			X	X	
ZYP (69)				X	
CZE/SVK (71)				X	
Sa-ITA (72)				X	

Figure 8.74: Stratigraphic range of the genus *Lepidorbitoides* in its reported localities

The first occurrence of *Lepidorbitoides* is of Campanian age. It is widely distributed in Africa, Europe, Asia and the Caribbean. In the Maastrichtian the genus densely covers the tropical and subtropical regions of the shallow water. There are also some Paleogene records from Venezuela (10; Caudri, 1944, 1948), Dutch West Indies (13; Caudri, 1944, 1948), the Netherlands (57; Hofker, 1966) and the Philippines (65; Hashimoto et al., 1978a). In the Campanian *Lepidorbitoides* is reported from many locations in African, European, Caribbean and Asian, which complicates the identification of an origination center. Drooger (1993) recommend the origination of *Lepidorbitoides* to the subprovinces of the North Sea basin and of the Pyrenean and Alpine basins.

Lepidorbitoides is also reported from Florida (2; Brönnimann, 1958b) and Tibet (48; Zhang et al., 2002) with an unprecise Late Cretaceous age. Further records are from Qatar (24), Somalia (26), Syria (28), and Yugoslavia (37) (Fleury et al., 1990), but there is no stratigraphic age given.

8.19.4 Biology

In most locations *Lepidorbitoides* is associated with individuals of the genera *Orbitoides*, *Omphalocyclus,* and *Siderolites*. *Sulcoperculina* and *Vaughanina* are additionally associated genera in Caribbean areas.

The paleoenvironmental situation of *Lepidorbitoides* seems to be species specific. The depth ranges between 40-80 m in the upper photic zone and 80-140 m in the lower photic zone (Hottinger, 1997). Visser (1951) interpreted *L. minor* to have lived in water depth of 1-40

fathoms (= 1-73 m). Hohenegger (1999) speaks of an occurrence in deeper environments, while *Lepidorbitoides* lived, according to Drooger (1984) somewhat deeper than *Orbitoides*. According to Dilley (1971) *Lepidorbitoides* mainly occurs between subtropical and tropical latitudes. It is often associated with corals and calcareous algae (Lithothamnium). This suggests that the average minimum temperature of *Lepidorbitoides* was above 18° C (Langer and Hottinger, 2000). Caus (1988) places some species of this genus on the open marine shelf.

8.19.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Lepidorbitoides* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): Caudri, 1944; Brönnimann, 1954; Seiglie and Ayala-Castanares, 1963

Florida (2): *Brönnimann, 1958b

Venezuela (10): Renz, 1955

Colombia (11): Caudri, 1948

Libya (18): Fleury et al., 1985

Bahamas (21): *Kureshy, 1980

Oman (23): Abdelghany, 2003

Qatar (24): Fleury et al., 1990

Yemen (25): Fleury et al., 1985; Sartorio and Venturini, 1988; Fleury et al., 1990

Somalia (26): Fleury et al., 1990

Syria (28): Fleury et al., 1990

Madagascar (29): *Visser, 1951; Fleury et al., 1985

France (31): Renz, 1936; Papp, 1954; Papp, 1955a; Hanzawa, 1962; Neumann, 1972; van Gorsel, 1973a; Wannier, 1983; Verhallen et al., 1984; Caus et al., 1988; Loeblich and Tappan, 1988; Neumann, 1993; Caus et al., 1996; Aguilar et al., 2002

Spain (32): Renz, 1936; *Visser, 1951; Neumann, 1972; Azéma et al., 1979; Wannier, 1983; Caus, 1988; Caus et al., 1988; Neumann, 1993

Germany (33): Hagn, 1971; Neumann, 1972; Fleury et al., 1985

Italy (35): Renz, 1936; Loeblich and Tappan, 1988

Greece (36): Arni, 1933; Renz, 1936; Butterlin, 1967; Fleury, 1977; Zambetakis-Lekkas, 1988; Fleury et al., 1990; Mavrikas et al., 1994

Yugoslavia (37): Fleury et al., 1990

Turkey (38): Loeblich and Tappan, 1988; Fleury et al., 1990; Meric and Coruh, 1991; Sirel, 1991; Özcan, 1993; Meric et al., 1997; Özcan and Özkan-Altiner, 1997; Özcan and Özkan-Altiner, 1999a; Özcan and Özkan-Altiner, 1999b; Özkan-Altiner and Özcan, 1999

Romania (41): Bratu, 1975; Ion, 1975

S-Russia (42): Fleury et al., 1985

S-India (44): *Visser, 1951; Nagappa, 1959; Gowda, 1964; Fleury et al., 1985

India: Renz, 1936

Pakistan (46): McGowran, 1968; Kureshy, 1977; Kureshy, 1980; Fleury et al., 1985

Indonesia (47): Fleury et al., 1985; Pringgoprawiro et al., 1998

Tibet (48): *Zhang et al., 2002

Line Islands (49): Premoli Silva and Brusa, 1981

Nauru (50): Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981; Butterlin, 1992

Iran (56): Loeblich and Tappan, 1988

Netherlands (57): Visser, 1951; Papp, 1954; Papp, 1955a; Hofker, 1966; Neumann, 1972; Wannier, 1983; Caus et al., 1988; Caus et al., 1996; Ferràndez-Canadell, 2000; Aguilar et al., 2002

Switzerland (58): Renz, 1936; Loeblich and Tappan, 1988

Austria (59): Papp and Küpper, 1953a; Papp, 1954; Papp, 1955a; Papp, 1955b; Papp, 1955c; Papp, 1956; Loeblich and Tappan, 1988; Neumann, 1993; Caus et al., 1996; Aguilar et al., 2002

Macedonia (60): Butterlin, 1967

Slovenia (63): Bignot, 1972

Malaysia (64): McGowran, 1968

Philippines (65): *Hashimoto et al., 1978a; Hashimoto and Matsumaru, 1981; Hashimoto and Matsumaru, 1984; Fleury et al., 1985

Hawaii (67): Butterlin, 1992

Cyprus (69): Renz, 1936

Czechoslovakia (71): Neumann, 1993

Sardinia (72): Busulini et al., 1984

Former Yugoslavia (74): Fleury et al., 1990

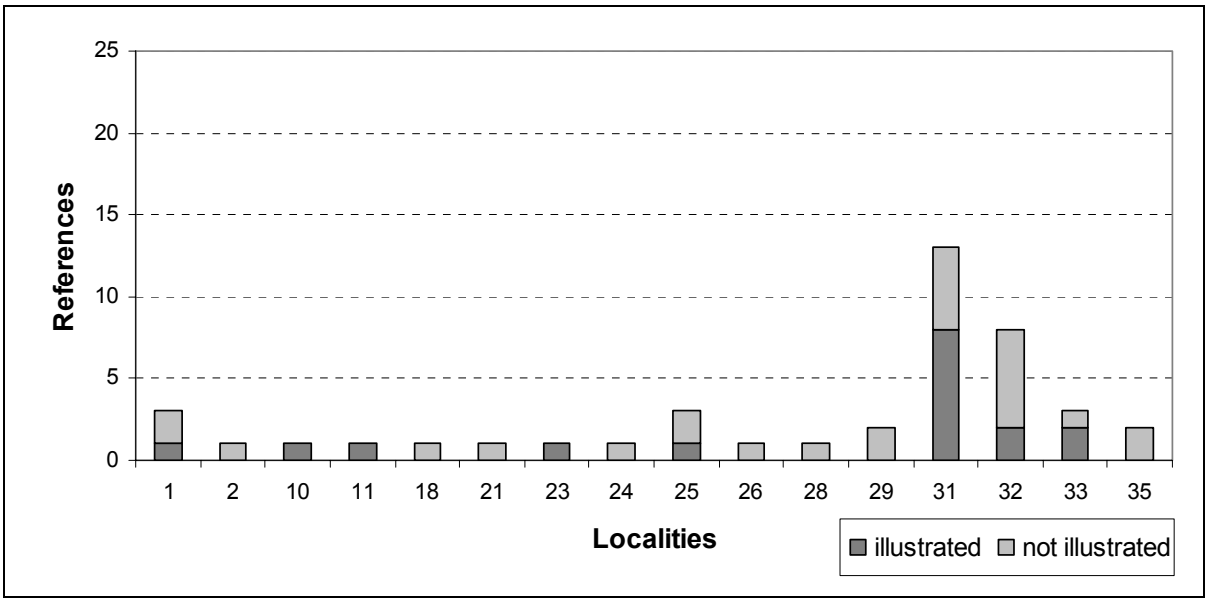

Figure 8.75a: Number of illustrated and not illustrated references in the localities of *Lepidorbitoides*

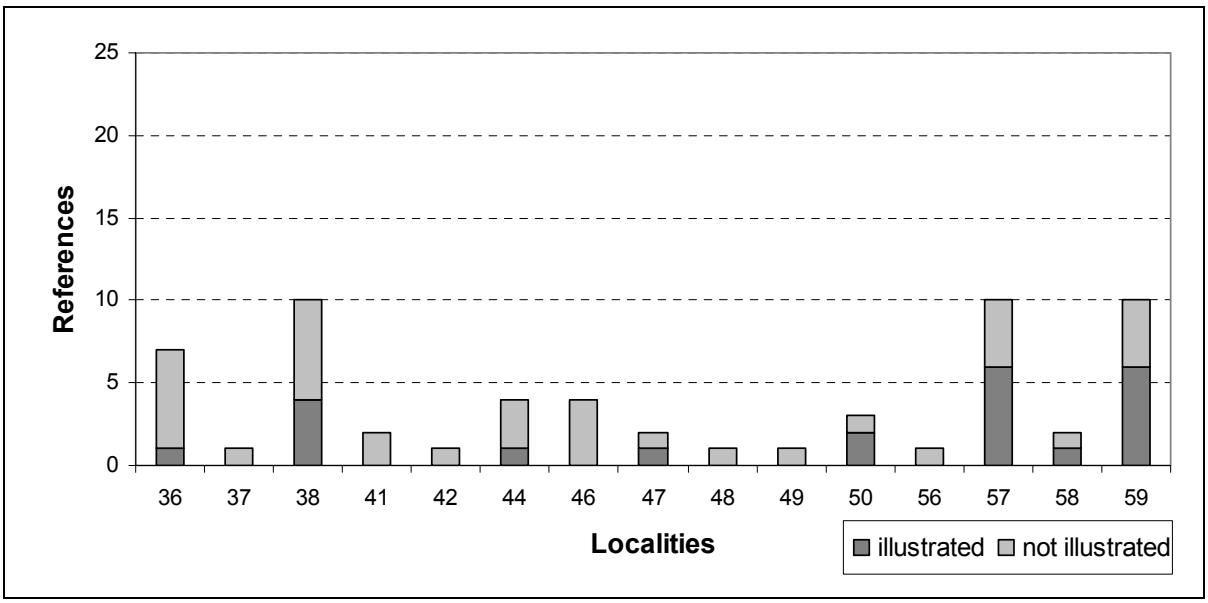

Figure 8.75b: Number of illustrated and not illustrated references in the localities of *Lepidorbitoides*

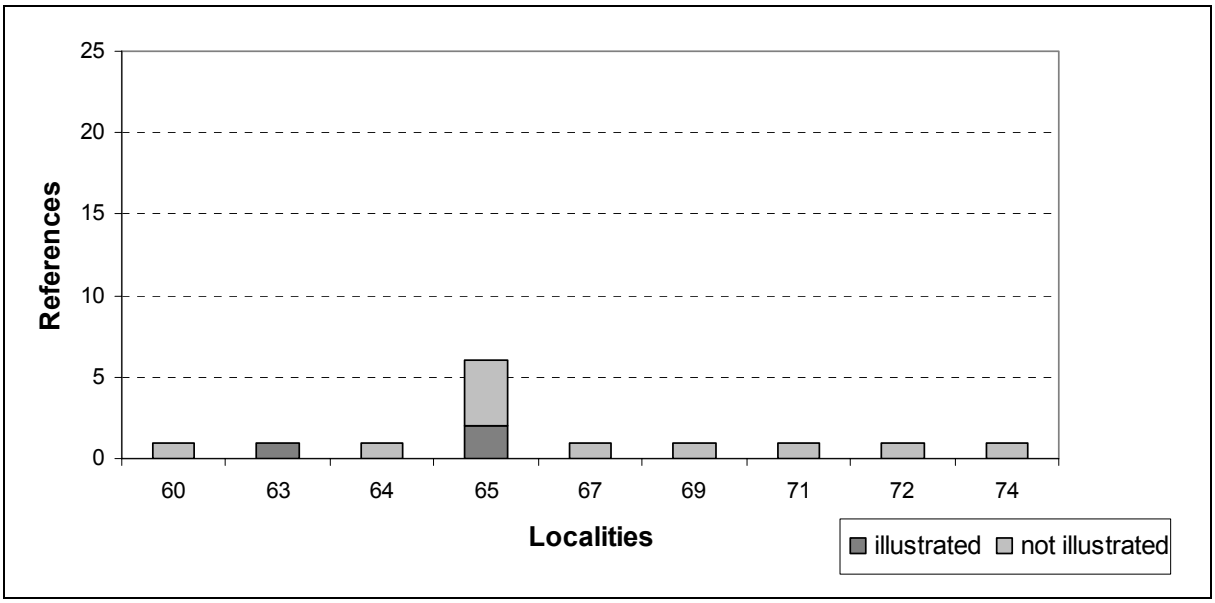

Figure 8.75c: Number of illustrated and not illustrated references in the localities of *Lepidorbitoides*

For reasons of clarity the following locations were plotted together in figure 8.76:
Germany (33), Switzerland (58), and Austria (59) as locality 82, Greece (36) and Macedonia (60) as locality 83, Yugoslavia (37), Slovenia (63), and formerly Yugoslavia (74) as locality 84.

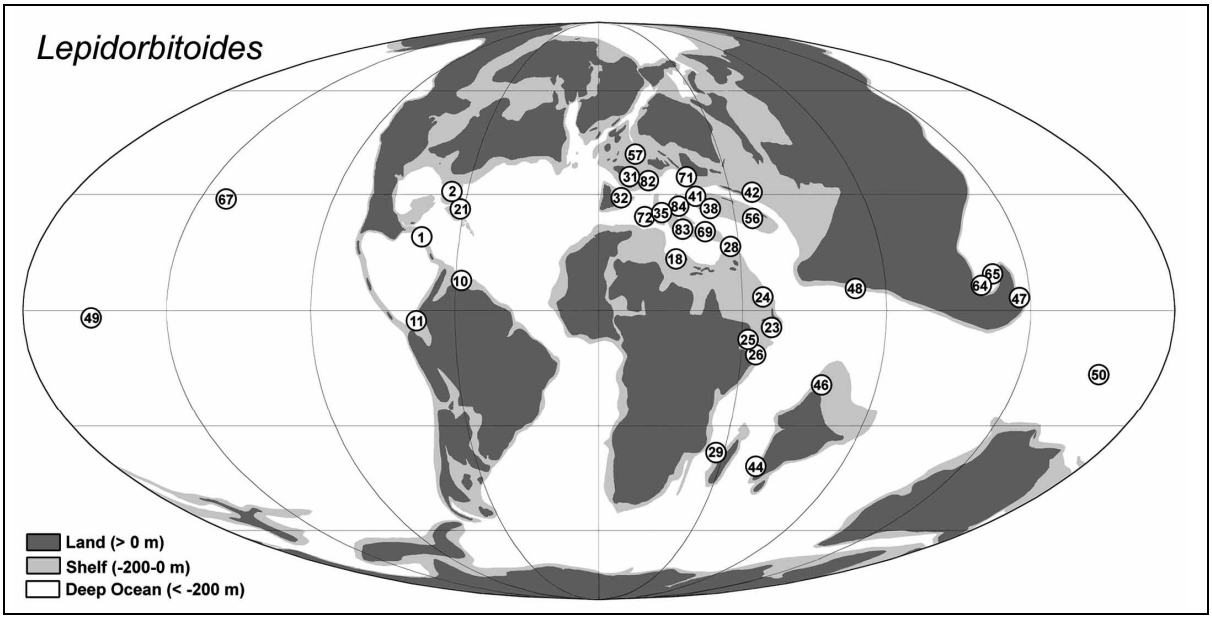

Figure 8.76: Global distribution of *Lepidorbitoides* in the Late Cretaceous

Lepidorbitoides shows a global distribution pattern. It is documented in all faunal provinces, but the European area seems to be the most densely populated region.

8.19.6 Remarks

There is currently some debate whether *Orbitocyclina* is indeed a separate genus or if it is synonymous with the genus *Lepidorbitoides*, which is strongly supported by Aguilar et al. (2002). The biogeographic distribution given above is therefore only of preliminary nature. If this genus belongs to *Lepidorbitoides* it would have the same global distribution pattern as outlined for *Lepidorbitoides*.

Lepidorbitoides minima Douvillé, 1927 is the type species of *Orbitocyclina* Vaughan, 1929.

8.20 *Sulcoperculina*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ORBITOIDACEA Schwager, 1876
Family LEPIDORBITOIDIDAE Vaughan, 1933
Subfamily LEPIDORBITOIDINAE Vaughan, 1933
Genus SULCOPERCULINA Thalmann, 1938

8.20.1 Description

Thalmann established in 1938 the new subgenus *Sulcoperculina* with the subgenustype ?*Camerina dickersoni* Palmer. The new subgenus belongs to the genus *Operculina* d'Orbigny. The material on which the systematic designation is based stems from the Maastrichtian of Cuba. In 1949, de Cizancourt concidered *Sulcoperculina* as a separate genus and not only a subgenus. The chambers of *Sulcoperculina* are trochospirally arranged, consisting of about three whorls. The last whorl is made up of around 18 to 20 chambers. The diameter of the test is between 0.6 mm (Hottinger, 1966) and 2 mm (Loeblich and Tappan, 1988), the thickness varies between 0.4 mm (Loeblich and Tappan, 1988) and 0.8 mm (Butterlin, 1981). In equatorial section a distinct spiral of the chambers is visible while the septa are nearly perpendicular to the wall. Intraseptal canals are present. In axial view a distinct sulcus is present at the peripheral margin. The test surface is ornamented with an umbilical knob and with thick pustules. The wall is calcareous.

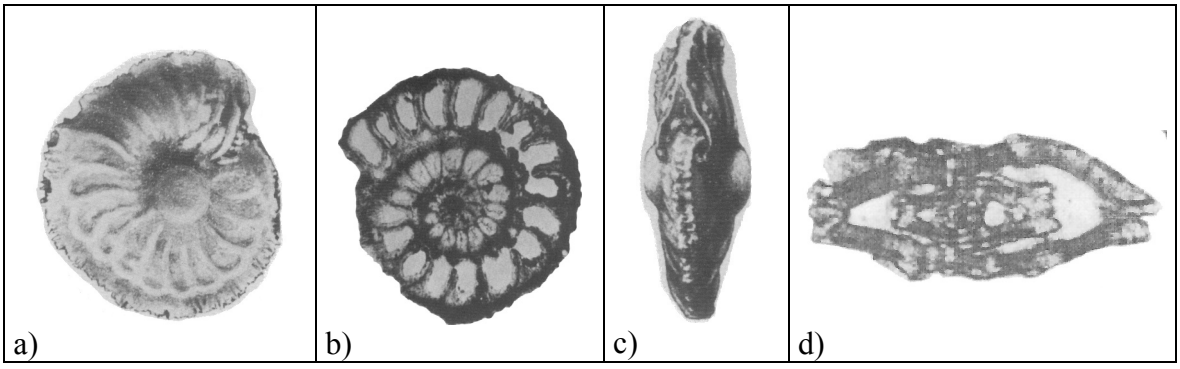

Figure 8.77: a) - d) *S. dickersoni* (Palmer); a), c) Palmer, 1934, b) Cole, 1947, d) Butterlin, 1981

8.20.2 Species

Type species: ?*Camerina dickersoni* Palmer, 1934; p. 243; pl. 14, figs. 1, 2, 4, 6, 8

Synonyms: *Operculina* (*Sulcoperculina*) Thalmann, 1939; p. 330

Sulcoperculina de Cizancourt, 1949 (nom. transl.); p. 671

Species: *S. angulata* Brown and Brönnimann, 1957; p. 29; text-figs. 2, 3

S. cubensis (Palmer, 1934) (?*Camerina cubensis* Palmer, 1934; p. 245; pl. 14, figs. 3, 5, 7)

S. diazi Seiglie and Ayala-Castanares, 1963; p. 30; pls. 6, figs. 1-4; pl. 7, figs. 1-3

S. dickersoni (Palmer, 1934) (?*Camerina dickersoni* Palmer, 1934; p. 243; pl. 14, figs. 1, 2, 4, 6, 8)

S. globosa de Cizancourt, 1949; p. 670; pl. 23, figs. 6, 7

?*S. minima* Seiglie and Ayala-Castanares, 1963; p. 31; pl. 8, figs. 1-4

S. obesa de Cizancourt, 1949; p. 670; pl. 23, figs. 11, 14

S. vermunti (Thiadens, 1937) [*Camerina vermunti* Thiadens, 1937; p. 94; text-figs. 3(A, E); pl. 16, figs. 1, 11, 12]

8.20.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)	X	X	X	X	
F-USA (2)	X			X	
S-MEX (3)			X	X	
T-USA (5)			X		
JAM (6)			X	X	
HTI (7)	X	X	X	X	
GTM (9)	?	?	?	?	
VEN (10)			X	X	
COL (11)				X	
PR-USA (12)			X	X	
DWI (13)			X	X	
KIR (49)				X	
NRU (50)			X,	X	
NE-MEX (52)			X	X	
H-USA (67)			X	X	
MEXu (68)			X	X	

Figure 8.78: Stratigraphic range of the genus *Sulcoperculina* in its reported localities

The first records of *Sulcoperculina* are from the Turonian of Cuba and Haiti (Brönnimann, 1957) and from the Early Cretaceous of Florida (Brönnimann, 1954). Records of Santonian age exist from Cuba (1; Brönnimann, 1957) and Haiti (7; Brönnimann, 1957). In the Campanian and in the Maastrichtian *Sulcoperculina* is reported from the Caribbean realm between Florida, Texas, Mexico, Cuba, Colombia and Venezuela, as well as from Asia (Pakistan). There are no records of *Sulcoperculina* from the Paleogene or later. The fossil record hints to an origination center around Cuba and Haiti.

8.20.4 Biology

In the Caribbean region *Vaughanina*, *Orbitoides*, *Lepidorbitoides* and *Pseudorbitoides* are usually the accompanying foraminifera. Hottinger (1983) interprets the habitat of *Sulcoperculina* as an environment exposed to high water energy, where the foraminifera lived on hard substrate. Also the lithology in which *Sulcoperculina* is present supports this interpretation as it is often a heterogenous silty limestone with some terrestrial components.

8.20.5 Biogeographic distribution and Faunal Province

In the time span from the Santonian to the Maastrichtian *Sulcoperculina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): Palmer, 1934; Caudri, 1944; Brönnimann, 1954; *Brönnimann, 1955; Brönnimann, 1957; Hanzawa, 1962; Seiglie and Ayala-Castanares, 1963; *Hottinger, 1966; Loeblich and Tappan, 1988

Florida (2): Brönnimann, 1957; *Brönnimann, 1958b

S-Mexico (3): Ayala-Castanares, 1963; Butterlin, 1967; Pécheux, 1984; Rosales Dominguez et al., 1994

Texas (5): Brönnimann, 1957

Jamaica (6): *Brönnimann, 1955; Krijnen, 1972; Loeblich and Tappan, 1988

Haiti (7): Brönnimann, 1957; Butterlin, 1967; Loeblich and Tappan, 1988

Venezuela (10): Renz, 1955; Loeblich and Tappan, 1988

Colombia (11): Caudri, 1948

Puerto Rico (12): Brönnimann, 1957; Pessagno, 1962

Dutch Westindies (13): Krijnen, 1967

Line Islands (49): Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981

Nauru (50): Premoli Silva and Brusa, 1981; Butterlin, 1992

NE-Mexico (52): Butterlin, 1967; Caus et al., 2002

Hawaii (67): Butterlin, 1992

Mexico (68): Caudri, 1944; Butterlin, 1981; Loeblich and Tappan, 1988

Central America: Dilley, 1973

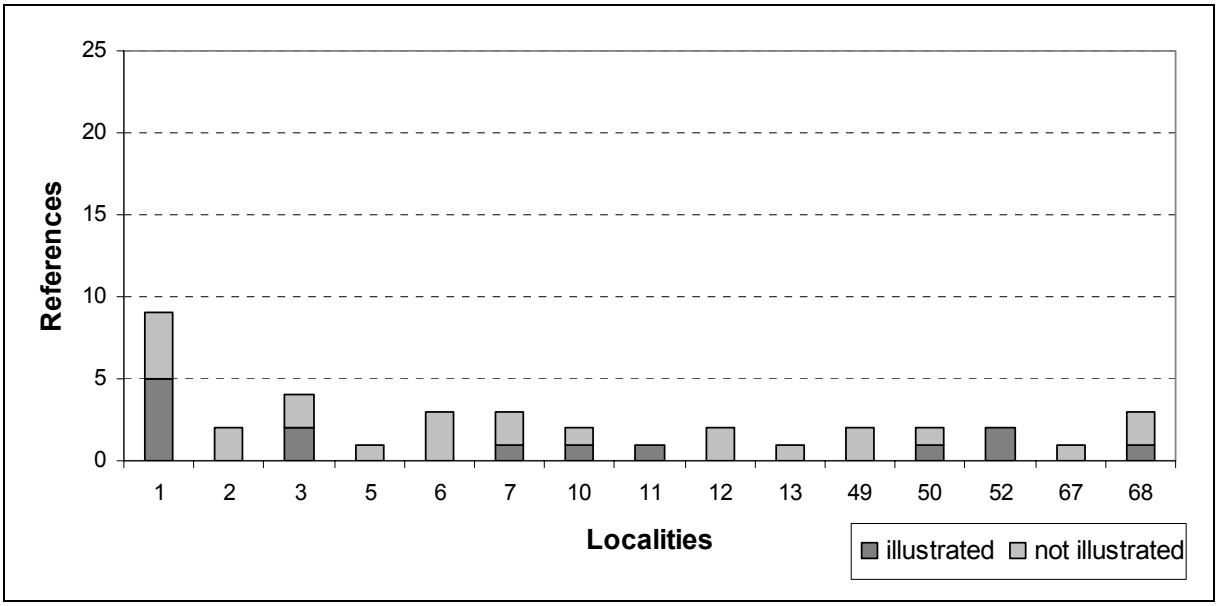

Figure 8.79: Number of illustrated and not illustrated references in the localities of *Sulcoperculina*

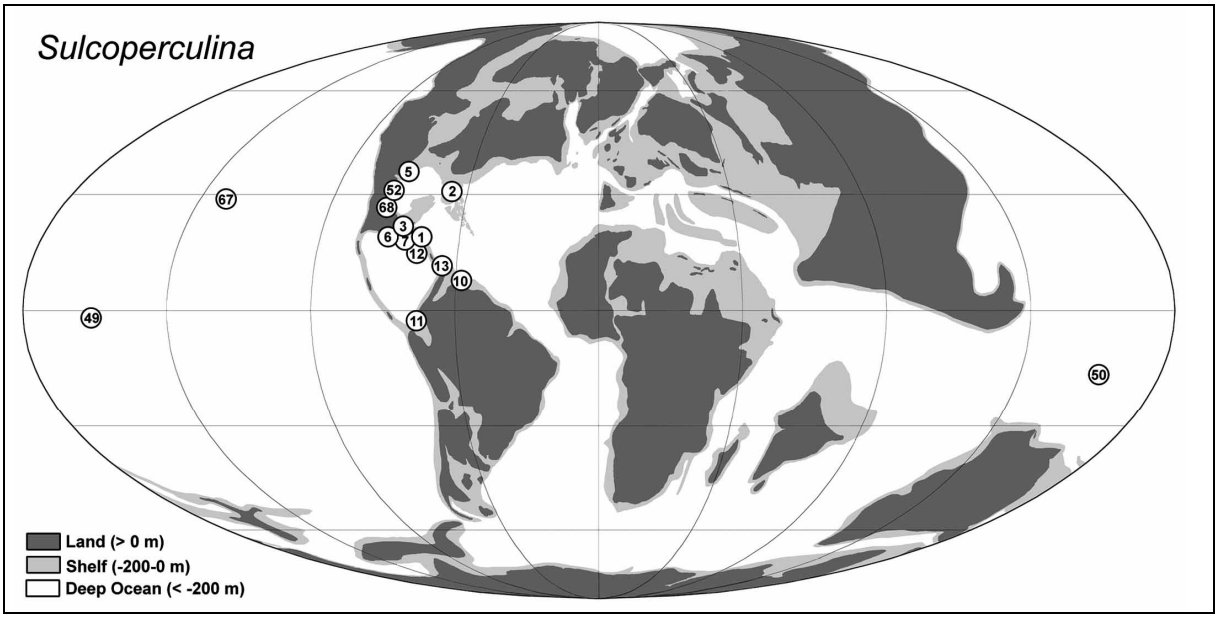

Figure 8.80: Global distribution of *Sulcoperculina* in the Late Cretaceous

The Caribbean realm is densely covered with locations where *Sulcoperculina* occurs. The distribution ranges from Texas (5; Brönnimann, 1957) in the north to Columbia (11; Caudri,

1948) in the south. Further locations belonging to the Caribbean region are Nauru (50; Premoli Silva and Brusa, 1981; Butterlin, 1992), the Line Islands (49; Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981) and Hawaii (67; Butterlin, 1992). Besides all records from the Caribbean, *Sulcoperculina* was also reported from Spain (32; Hottinger, 1966; Azéma et al., 1979), Greece (36; Butterlin, 1967; Loeblich and Tappan, 1988; Mavrikas et al., 1994), Macedonia (60; Butterlin, 1981) and Turkey (38; Meric and Coruh, 1991), Egypt (20; Ismail and Boukhary, 2001), Oman (23; Abdelghany, 2003), and Pakistan (46; Kureshy, 1977, 1980). All European and North African records however, appear to be false identifications. *Sulcoperculina* is therefore considered to be endemic to the Caribbean and Eastern Pacific region.

8.20.6 Remarks

Unfortunately the records from the Line Islands and Hawaii cannot be verified by illustrations, but as discussed in chapter 6.2 “Paleoceanography” those localities were closer to the Caribbean in the Late Cretaceous with connecting shallow “stepping stones” (Premoli Silva and Brusa, 1981), so that a distribution may be possible. This genus is often interpreted to be restricted to the Caribbean Province (Premoli Silva and Brusa, 1981) and all other records from Spain (32), Greece (36), Macedonia (60), Turkey (38), Egypt (20), Oman (23), and Pakistan (46) are disregarded here. The specimen from Oman (23), which is reported by Abdelghany (2003), is illustrated but does not show the significant peripheral sulcus. The specimens from Greece (36) and Macedonia (60) that were reported and illustrated by Butterlin (1967) do not belong to *Sulcoperculina*.

8.21 *Pseudorbitoides*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ROTALIACEA Ehrenberg, 1839
Family PSEUDORBITOIDIDAE Rutten, 1935
Subfamily PSEUDORBITOIDINAE Rutten, 1935
Genus PSEUDORBITOIDES Douvillé, 1922

8.21.1 Description

In 1922, Douvillé erected the genus *Pseudorbitoides*, with the type species *Pseudorbitoides trechmanni* from Jamaica. The perforate test of *Pseudorbitoides* is lenticular with a circular outline. The size of the test is species-specific and ranges between 0.4 and 2.7 mm, while the thickness is between 0.1 and 1.7 mm (Krijnen, 1967). The microspheric juvenarium is uniserial, while the megalospheric one is uniserial to quadriserial. A single equatorial layer divides the test. To the periphery the equatorial chamber are crossed by radial beams, which dominate towards the margin. The lateral chambers, which are arranged in regular tiers, must not cover the whole equatorial chambers so that a peripheral flange is visible. The outside of the test is covered with numerous pustules.

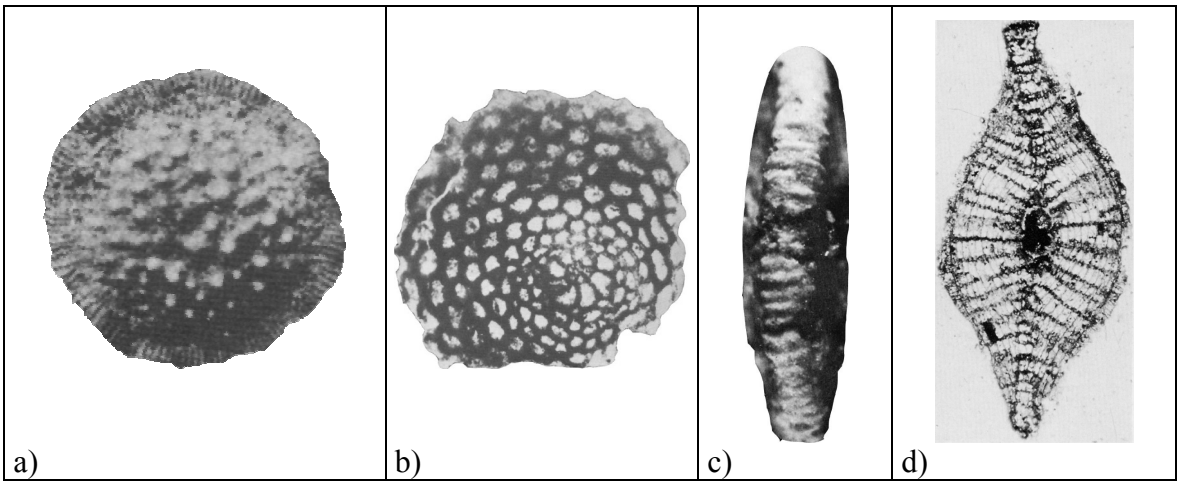

Figure 8.81: a), b) *P. trechmanni* Douvillé, c), d) *P. trechmanni pectinata* Krijnen; a), b) Loeblich and Tappan, 1988, c), d) Krijnen, 1972

8.21.2 Species

Type species: *Pseudorbitoides trechmanni* Douvillé, 1922[+]

Synonyms: *Pseudorbitoides* Douvillé, 1922[+]

Species: *P. chubbi* Brönnimann, 1958b; p. 424; pl. 1, figs. 1-3

P. curacaoensis Krijnen, 1967; p. 148; pl. 1, figs. 1-3; pl. 2, figs. 1-6; pl. 3, figs. 1-4; pl. 5, fig. 1

P. israelskyi Vaughan and Cole, 1932[+]

P. rutteni Brönnimann, 1955; p. 68; pl. 11, figs. 1-7; pl. 12, figs. 1-11

P. trechmanni Douvillé, 1922[+]

8.21.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)			X	X	
F-USA (2)		?	?	?	
S-MEX (3)			X	X	
L-USA (4)			X	X	
M-USA (4)			X		
T-USA (5)			X	X	
JAM (6)			X	X	
HTI (7)			X	X	
HND (8)			X		
GTM (9)			X	X	
VEN (10)			X	X	
PR-USA (12)			X	X	
DWI (13)			X	X	
KIR (49)			X	X	
NRU (50)			X	X	
H-USA (67)			X	X	
MEXu (68)			X	X	

Figure 8.82: Stratigraphic range of the genus *Pseudorbitodes* in its reported localities

Pseudorbitoides is restricted to the Late Cretaceous (Campanian to Maastrichtian). In both time slices it is reported from numerous Caribbean locations. From the European area it is reported from the Campanian of Austria (59). There are also some Asian records, from Tibet (48), Papua New Guinea (51), and the Philippines (65). From Papua New Guinea a Campanian age is given, whereas the age of the record of Tibet is not given. From the Philippines the age is given with Late Cretaceous to Paleocene. All European and Asian records are highly questionable. The genus is therefore restricted to the Caribbean. To date the origination center cannot be identified.

8.21.4 Biology

In most locations *Pseudorbitoides* is associated with *Lepidorbitoides*, *Orbitoides*, *Sulcoperculina*, and *Vaughanina*. Dilley (1971) considers the habitat of *Pseudorbitoides* to be a warm shallow-water environment within tropical and subtropical latitudes. This is suggested by the presence of corals and nullipore type calcareous algae.

8.21.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Pseudorbitoides* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): Caudri, 1944; Brönnimann, 1954; *Brönnimann, 1955; Seiglie and Ayala-Castanares, 1963; Loeblich and Tappan, 1988

Florida (2): *Brönnimann, 1954

Chiapas (3): Ayala-Castanares, 1963; Pécheux, 1984; Rosales Dominguez et al., 1994

Louisiana (4): Seiglie and Ayala-Castanares, 1963; Loeblich and Tappan, 1988

Mississippi (4): *Vaughan and Cole, 1943; Brönnimann, 1957

Texas (5): *Frizzell, 1954; Brönnimann, 1958b; Loeblich and Tappan, 1988

Jamaica (6): *Vaughan and Cole, 1943; *Brönnimann, 1955; Krijnen, 1972; *Loeblich and Tappan, 1988

Haiti (7): Brönnimann, 1955; Seiglie and Ayala-Castanares, 1963; Butterlin, 1967; Loeblich and Tappan, 1988

Honduras (8): Seiglie and Ayala-Castanares, 1963

Guatemala (9): Brönnimann, 1955

Venezuela (10): Brönnimann, 1955; Renz, 1955; Seiglie and Ayala-Castanares, 1963

Puerto Rico (12): Pessagno, 1962; Seiglie and Ayala-Castanares, 1963

Dutch West Indies (13): Brönnimann, 1955; Krijnen, 1967; Krijnen, 1972

Kiribati (49): Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981; Butterlin, 1992

Nauru (50): Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981; Butterlin, 1992

Hawaii (67): Butterlin, 1992

Mexico undifferentiated (68): Brönnimann, 1955; Brönnimann, 1957; Butterlin, 1981

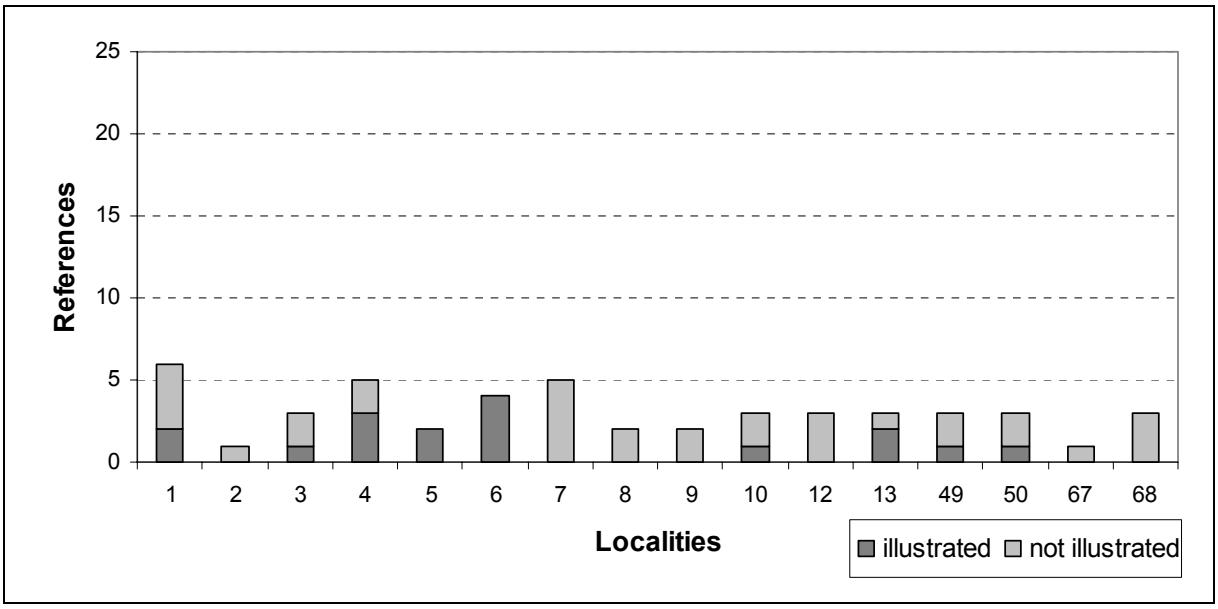

Figure 8.83: Number of illustrated and not illustrated references in the localities of *Pseudorbitoides*

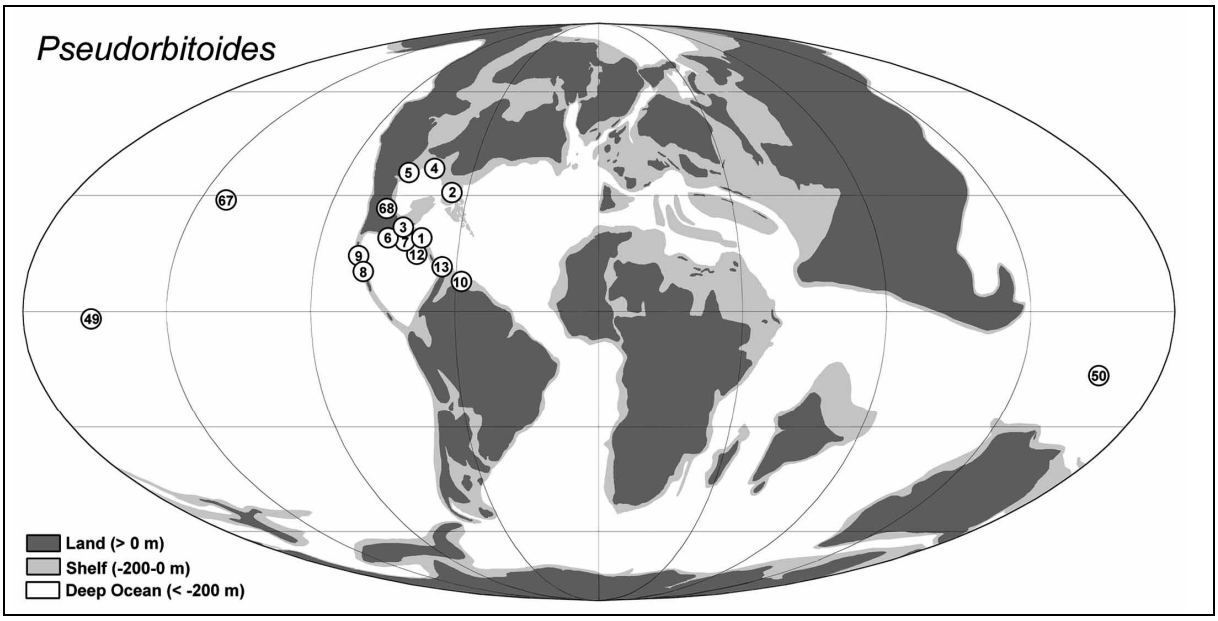

Figure 8.84: Global distribution of *Pseudorbitoides* in the Late Cretaceous

The main distribution of *Pseudorbitoides* is in the Caribbean region (Vaughan, 1933; van Gorsel, 1973). There it occurs from the southern part of North America (Louisiana, Mississippi, Texas, Florida) to the north of South America (Venezuela, Dutch West Indies). Further records from the Caribbean Faunal Province are from Hawaii (67), Line Islands (49), and Nauru (50). There are also specimens reported from European (Austria) and Asian (Tibet, Papua New Guinea, Philippines) regions. These occurrences, however, require a critical review and are therefore excluded. The records from Tibet (48; Butterlin, 1992) and Papua New Guinea (51; Seiglie and Ayala-Castanares, 1963; McGowran, 1968; Butterlin, 1992)

cannot be verified by illustrations and are also doubtful. The same is true for records from Austria (59; Papp, 1954, 1955b) and the Philippines (65; Hashimoto et al., 1978a). The biogeographic distribution of *Pseudorbitoides* is therefore restricted to the Caribbean and Eastern Pacific.

8.21.6 Remarks

Pseudorbitoides longispiralis is the type species of *Helicorbitoides* Macgillavry (Loeblich and Tappan, 1988). Therefore the records of this species (Papp and Küpper, 1953b; Papp, 1954; Brönnimann, 1955; Papp, 1955a, 1955b) must be disregarded.

The specimens of ?*Pseudorbitoides chubbi* (Brönnimann, 1958b; pl. 1, figs. 1-3) from the Campanian of Texas do not belong to the genus *Pseudorbitoides*.

The illustrated specimens of ?*Pseudorbitoides chubbi* (Butterlin, 1981; pl. 33, figs. 5, 6) and *Pseudorbitoides curacaoensis* (Butterlin, 1981; pl. 33, figs. 7-9) do not belong to the genus *Pseudorbitoides*.

Pseudorbitoides israelskyi (Pécheux, 1984; pl. 7, figs. 21, 22) and *Pseudorbitoides israelskyi* morphotype *kozaryi* (Pécheux, 1984; pl. 7, figs. 31-33) from the Campanian of Mexico are too different to belong to the genus *Pseudorbitoides*.

8.22 *Vaughanina*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ROTALIACEA Ehrenberg, 1839
Family PSEUDORBITOIDIDAE Rutten, 1935
Subfamily VAUGHANININAE MacGillavry, 1963
Genus VAUGHANINA Palmer, 1934

8.22.1 Description

Palmer (1934) established the genus *Vaughanina* based on material from the Late Cretaceous of Cuba. The test of *Vaughanina* is lenticular, with a circular outline. The dimensions depend on the species and on the ontogenetic stages. The diameter ranges from 0.5 mm to 2.0 mm and the thickness from 0.4 mm to 1.5 mm. From the outside the test seems to consist of two parts: a central convex part with prominent pustules, and an outer thin flange, which is crossed by radiating plates. In the singular equatorial layer the bilocular juvenarium is followed by a spiral of 5 to 27 uniserial chambers. Affiliated are annular chambers, which are crossed by radial plates. The equatorial layer thickens to the periphery. It is covered on both sides with lateral chambers, with exception of the outmost part, the peripheral flange. In the central part there are 6 to 8 layers of lateral chambers. The lateral chambers are crossed by several pillars, which produce the pustules on the outside.

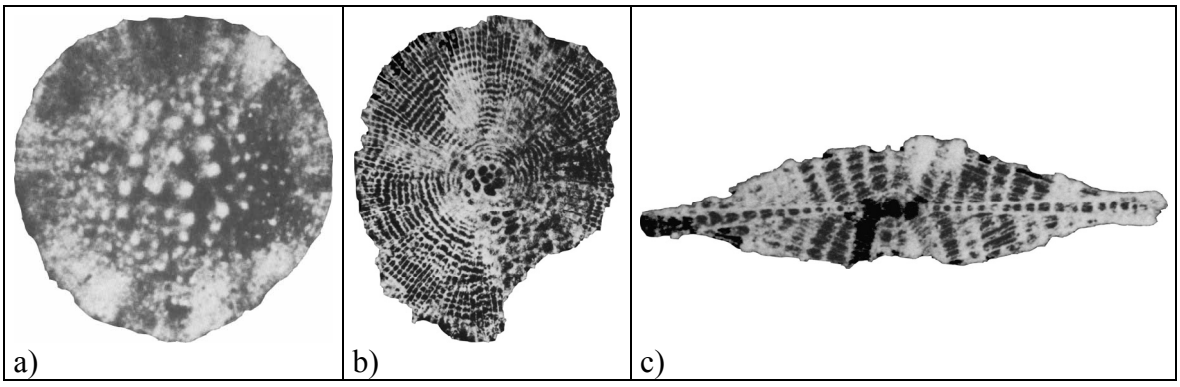

Figure 8.85: a) - c) *V. cubensis* Palmer; a), b) Vaughan and Cole, 1943, c) Palmer, 1934

8.22.2 Species

Type species: *Vaughanina cubensis* Palmer, 1934; p. 241; pl. 12, fig. 5; pl. 13, figs. 2, 4

Synonyms: *Vaughanina* Palmer, 1934; p. 240

Species: *V. barkeri* Brönnimann, 1954; p. 103; pl. 18, figs. 1, 2; txt-fig. 10

V. cubensis Palmer, 1934; p. 241; pl. 12, fig. 5; pl. 13, figs. 2, 4

V. guatemalensis Brönnimann, 1958b; p. 434; pl. 1, fig. 8; txt-figs. 1, 8, 9

V. jordanae Brönnimann, 1958b; p. 429; pl. 1, figs. 4-7; txt-figs. 1, 5-7

8.22.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)			X	X	X
F-USA (2)	X		X	X	
S-MEX (3)			X	X	
GTM (9)			X	X	
VEN (10)			X	X	
PR-USA (12)			X	X	
DWI (13)					X
V-MEX (14)			X	X	
KIR (49)				X	
NRU (50)			X	X	
NE-MEX (52)			X		
H-USA (67)				X	

Figure 8.86: Stratigraphic range of the genus *Vaughanina* in its reported localities

The first occurrence of *Vaughanina* is from the Early Cretaceous of Florida (2; Brönnimann, 1954) but the record lacks an illustration. The main stratigraphic range of *Vaughanina* is from the Campanian to the Maastrichtian, where it can be found in the entire Caribbean region. Brönnimann (1954) and Ellis and Messina (1967) also found *Vaughanina cubensis* in the Paleocene of Cuba (1). Further Paleocene records of *Vaughanina cubensis* are from Bonaire, D.W.I. (13; Ellis and Messina, 1967). The origination center of *Vaughanina* seems to be in Florida from where it dispersed to the whole Caribbean region.

8.22.4 Biology

Vaughanina is commonly associated with individuals of the following larger foraminifera: *Orbitoides*, *Sulcoperculina*, *Lepidorbitoides*, *Pseudorbitoides*, *Omphalocyclus*, and rarely with *Chubbina*, and *Siderolites*.

The information about the habitat of *Vaughanina* shows a broad spectrum of potential environments. On the one hand a reefal or fore-reefal facies (Brönnimann, 1958a) and organic reefs (Seiglie and Ayala-Castanares, 1963) are mentioned; on the other hand the environment may have been open marine with some terrigenous input (Caus et al., 2002) or with abundant detritic material (Seiglie and Ayala-Castanares, 1963). Seiglie and Ayala-Castanares (1963) conclude that the species of the family Pseudorbitoididae have lived in an environment with moderate water energy.

8.22.5 Biogeographic distribution and Faunal Province

In the uppermost Cretaceous individuals of the genus *Vaughanina* are documented from the following localities (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): *Palmer, 1934; *Vaughan and Cole, 1943; Caudri, 1944; Brönnimann, 1954; Brönnimann, 1958a; Ayala-Castanares, 1963; Seiglie and Ayala-Castanares, 1963; *Ellis and Messina, 1967; Krijnen, 1972; Loeblich and Tappan, 1988

Florida (2): Brönnimann, 1954; Brönnimann, 1957; *Brönnimann, 1958b; Ellis and Messina, 1967; Loeblich and Tappan, 1988

Chiapas (3): Pécheux, 1984; Rosales Dominguez et al., 1994

Guatemala (9): *Brönnimann, 1954; Brönnimann, 1958b; Ellis and Messina, 1967; Loeblich and Tappan, 1988

Venezuela (10): *Brönnimann, 1954; Renz, 1955; Ellis and Messina, 1967; Loeblich and Tappan, 1988

Puerto Rico (12): Pessagno, 1962

Dutch West Indies (13): *Brönnimann, 1954; *Ellis and Messina, 1967

Veracruz (14): *Brönnimann, 1954; Butterlin, 1967; Ellis and Messina, 1967

Line Islands (49): Premoli Silva and Brusa, 1981

Nauru (50): Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981; Butterlin, 1992

NE-Mexico (52): Caus et al., 2002

Hawaii (67): Butterlin, 1992

N America, Central America: Dilley, 1973

Mexico: Butterlin, 1981; Loeblich and Tappan, 1988

Caribbean: Hanzawa, 1962; Butterlin, 1981

Gulf of Mexico region: Hanzawa, 1962

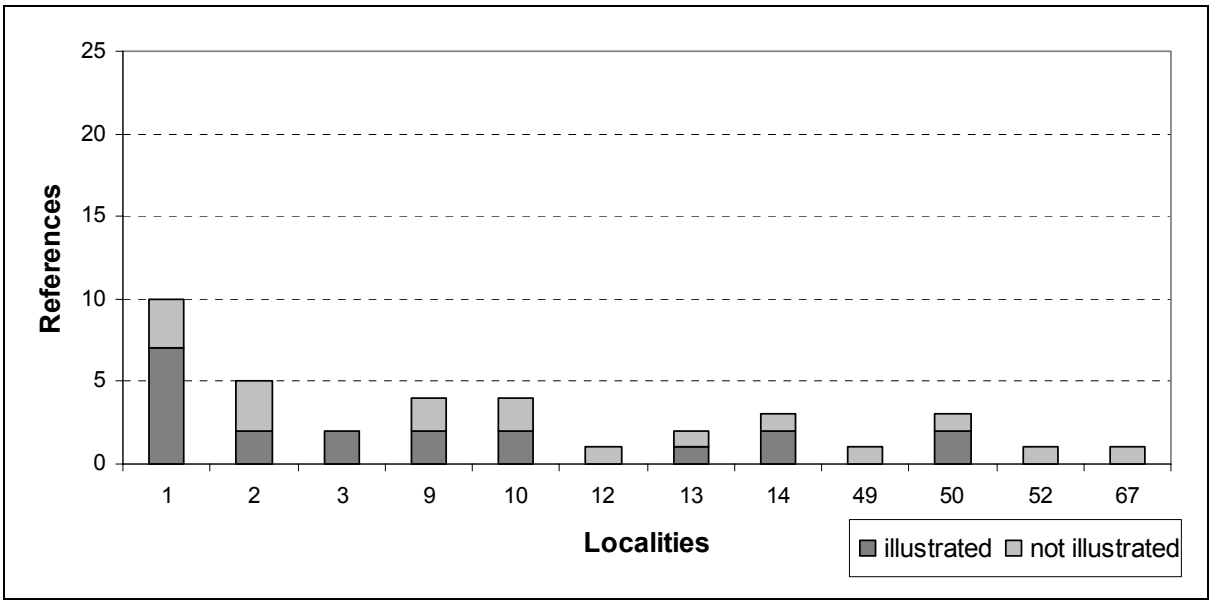

Figure 8.87: Number of illustrated and not illustrated references in the localities of *Vaughanina*

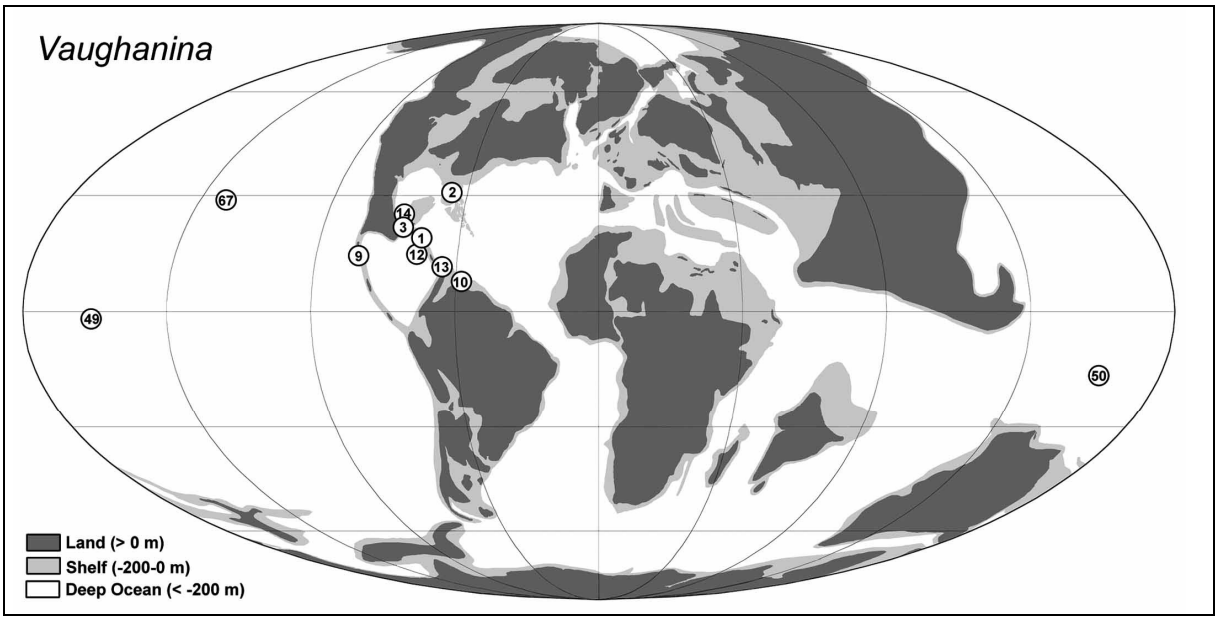

Figure 8.88: Global distribution of *Vaughanina* in the Late Cretaceous

In the uppermost Cretaceous *Vaughanina* is documented from the Caribbean region. Both, in the Campanian and in the Maastrichtian it occurs in the area between Florida (2), Mexico (3, 52), Guatemala (9), Puerto Rico (12), Cuba (1) and Venezuela (10). In the Pacific Ocean *Vaughanina* is reported from Nauru (50) in the Campanian and Maastrichtian while the records from Line Islands (49) and Hawaii (67) are Maastrichtian in age.

8.22.6 Remarks

The records of *Vaughanina* from Nauru (50; Premoli Silva and Brusa, 1981) are doubtful, because the illustrated foraminifera show no peripheral flange and instead of pustules the individuals show cavities.

8.23 *Orbitocyclina*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ROTALIACEA Ehrenberg, 1839
Family PSEUDORBITOIDIDAE Rutten, 1935
Subfamily PSEUDORBITELLINAE Hanzawa, 1962
Genus ORBITOCYCLINA Vaughan, 1929

8.23.1 Description

Orbitocyclina has recently been described to be synonymous with *Lepidorbitoides* (Aguilar et al., 2002). The distributional discussion that follows below considers the status prior to the redescription of Aguilar et al. (2002). Both genera, however, have now been merged into a single genus (see remarks below).

The type species of *Orbitocyclina*, *Lepidorbitoides minima*, was defined by Douvillé in the year 1927 based on material from Mexico. The genus *Orbitocyclina* was officially erected in 1929. The test is lenticular. The dimensions of *Orbitocyclina minima* (Douvillé) are given with a diameter of 1.6-4 mm and a thickness of 0.3-2.4 mm (Hanzawa, 1963). The bilocular embryo is surrounded by a comparatively thick wall and followed by spiral chambers. The test is subdivided by an equatorial layer, in which the arcuated to diamond-shaped chambers are interconnected by stolons. The lateral layers consist of irregular tiers with 5-6 chambers at the center and do not always completely cover the equatorial layer, so that a flangelike periphery arises. In the central part pillars may be present.

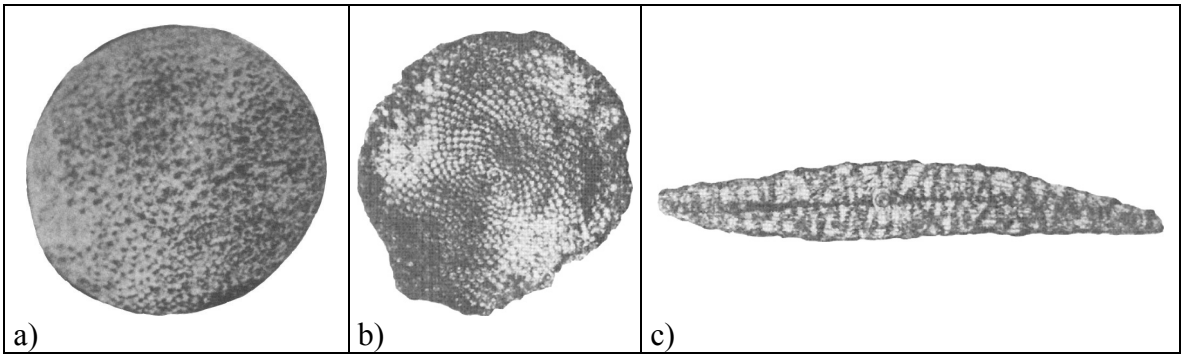

Figure 8.89: a) - c) *O. minima* (Douvillé); a) Loeblich and Tappan, 1988, b), c) Butterlin, 1981

8.23.2 Species

Type species: *Lepidorbitoides minima* Douvillé, 1927[+]; p. 34; pl. 1

Synonyms: *Orbitocyclina* Vaughan, 1929[+]

Pseudorbitella Hanzawa, 1962

Species: *Pseudorbitella americana* Hanzawa, 1962; p.148; pl. 7, figs. 1-4

Lepidorbitoides minima Douvillé, 1927[+]

Orbitocyclina minima (Douvillé, 1927)[+]

O. ariyalurensis Rao, 1942

O. americana (Hanzawa, 1962)

8.23.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)			X	X	
F-USA (2)			X	X	
S-MEX (3)			X	X	
L-USA (4)			X	X	
FRA (31)			X		
ESP (32)			X		
S-IND (44)				X	
NRU (50)				X	
NE-MEX (52)			X	X	
AUT (59)			X		
MEXu (68)			X	X	

Figure 8.90: Stratigraphic range of the genus *Orbitocyclina* in its reported localities

The first stratigraphic occurrence of *Orbitocyclina* is of Campanian age. In this time slice it is recorded from following Caribbean regions: Cuba (1; Caudri, 1944; Hanzawa, 1962, 1963; Loeblich and Tappan, 1988), Florida (2; Loeblich and Tappan, 1988), Louisiana (4; Loeblich and Tappan, 1988), and Mexico (Ayala-Castanares, 1963; Pécheux, 1984). *Orbitocyclina* is also reported from Campanian locations in Europe [France (31), Neumann, 1972; Spain (32), Neumann, 1972; Austria (59), Papp, 1954, 1955a, 1955b, 1956]. During Maastrichtian times *Orbitocyclina* is only known from Caribbean locations (Cuba, Florida, Louisiana, Nauru, and Mexico) but there is also a record from South India (44; Gowda, 1964), which unfortunately cannot be verified by an illustration. The origination center of this genus cannot be identified to date.

8.23.4 Biology

Aguilar et al. (2002) suggest a deposition on the open shelf, where a huge part is covered with terrigeneous material. The accompanying fauna indicates a deposition in the lower photic zone. Therefore the living environment could be in a region with carbonate sedimentation, which was deposited in the forereef (Aguilar et al., 2002).

8.23.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Orbitocyclina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Cuba (1): Caudri, 1944; Hanzawa, 1962; Hanzawa, 1963; Loeblich and Tappan, 1988

Florida (2): Loeblich and Tappan, 1988

Chiapas (3): Ayala-Castanares, 1963; Pécheux, 1984

Louisiana (4): Loeblich and Tappan, 1988

France (31): Neumann, 1972

Spain (32): Neumann, 1972

S-India (44): Gowda, 1964

Nauru (50): Butterlin, 1992

NE-Mexico (52): Butterlin, 1967; Loeblich and Tappan, 1988; Butterlin, 1992; Aguilar et al., 2002; Caus et al., 2002

Austria (59): Papp, 1954; Papp, 1955a; Papp, 1955b; Papp, 1956

Mexico undiff. (68): Caudri, 1944; Butterlin, 1981; Loeblich and Tappan, 1988

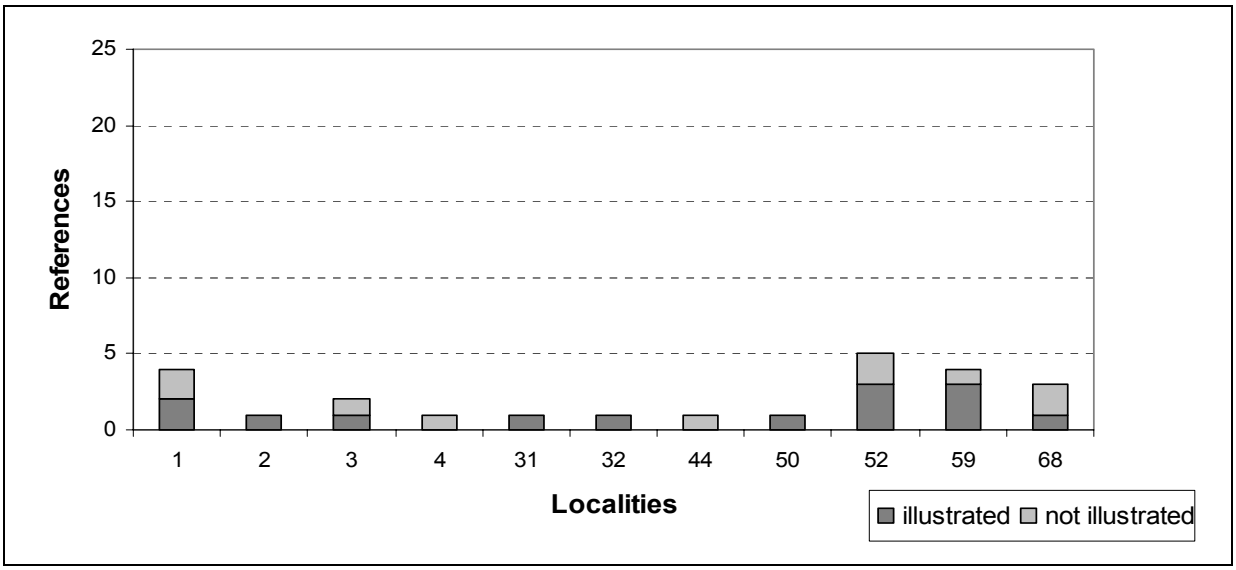

Figure 8.91: Number of illustrated and not illustrated references in the localities of *Orbitocyclina*

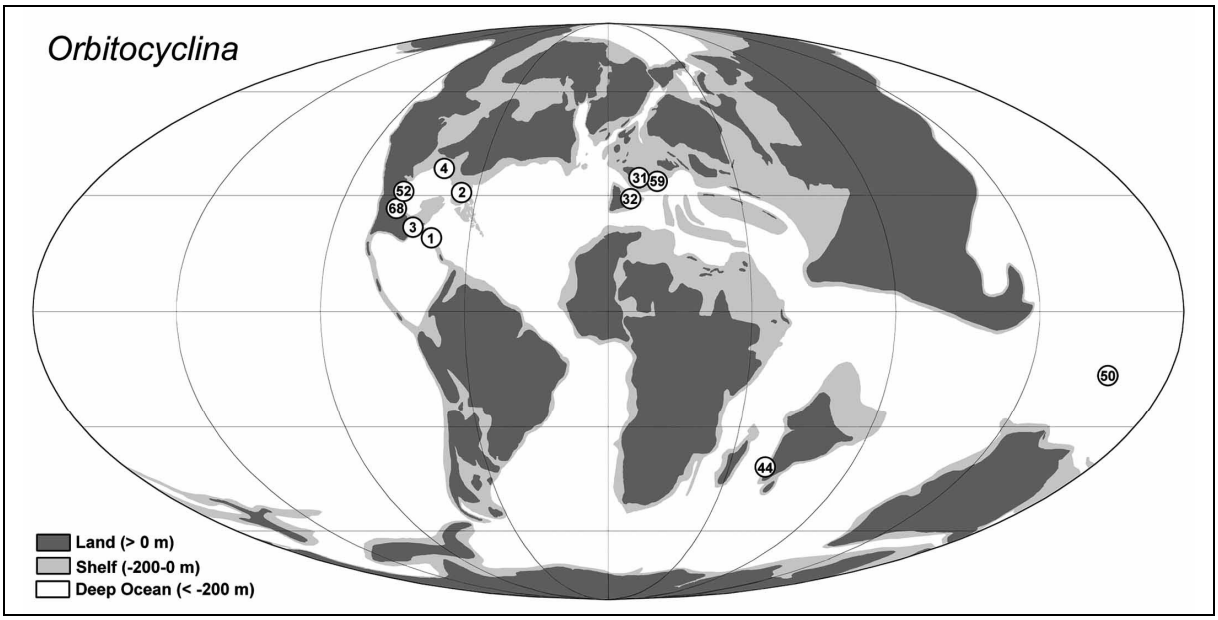

Figure 8.92: Global distribution of *Orbitocyclina* in the Late Cretaceous

In the Late Cretaceous *Orbitocyclina* is mainly distributed in the northern Caribbean region between Louisiana (4; Loeblich and Tappan, 1988), Florida (2; Loeblich and Tappan, 1988) and South Mexico (3; Ayala-Castanares, 1963; Pécheux, 1984). Campanian records are also from France (31; Neumann, 1972), Spain (32; Neumann, 1972), and Austria (59; Papp, 1954, 1955a, 1955b, 1956).

8.23.6 Remarks

There is currently some debate whether *Orbitocyclina* is indeed a separate genus or if it is synonymous with the genus *Lepidorbitoides*, which is strongly supported by Aguilar et al. (2002). The biogeographic distribution given above is therefore only preliminary. If this genus belongs to *Lepidorbitoides* it would have the same global distribution pattern as outlined in chapter 8.19 for *Lepidorbitoides*.

8.24 *Laffitteina*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ROTALIACEA Ehrenberg, 1839
Family ROTALIIDAE Ehrenberg, 1839
Subfamily PARAROTALIINAE Reiss, 1963
Genus LAFFITTEINA Marie, 1945

8.24.1 Description

In 1945, Marie established the new genus *Laffitteina* in appreciation to R. Laffitte, based on material from the Montian of France. The test of *Laffitteina* is lenticular with a diameter of 3 mm and a thickness of 1 mm (Blanc, 1975). The chambers are arranged in an involute spiral consisting of about three whorls. The septa, which are slightly curved forward, are doubled. The thick septa are distinctly visible as sutures on the outside of the test and are provided with a double row of pores. The wall is calcareous hyaline.

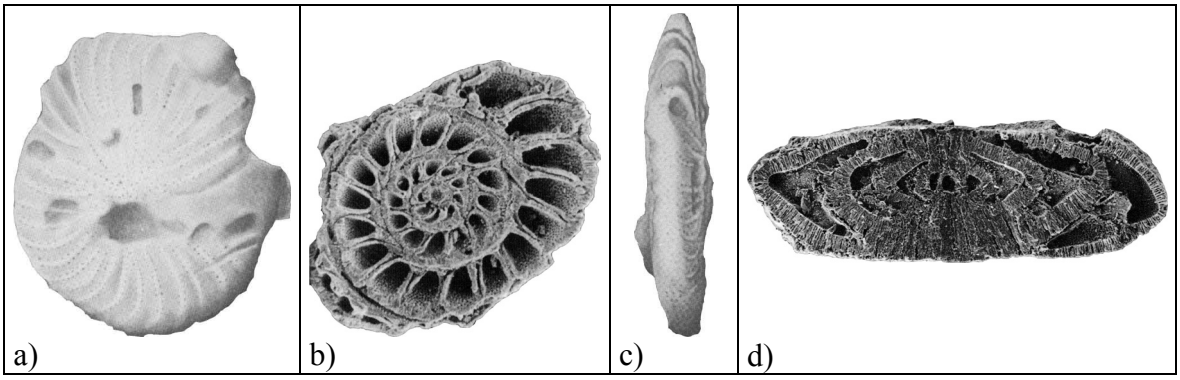

Figure 8.93: a) - d): *L. mengaudi* (Astre); a), c) Loeblich and Tappan, 1964, b), d) Blanc, 1975

8.24.2 Species

Type species: *Laffitteina bibensis* Marie, 1945; p. 431; text-figs. 1-3, 14-16; pl. 1, figs. 1-6
Synonyms: *Laffitteina* Marie, 1945; p. 430
Species: *L. bibensis* Marie, 1945; p. 431; text-figs. 1-3, 14-16; pl. 1, figs. 1-6
L. boluensis Dizer, 1957[+]
L. conica Drooger, 1952; p. 100; pl. 16, figs. 10a-c, 16, 17

L. erki (Sirel, 1969)$^{+}$

L. koyulhisarica Sirel, 1996; p. 20; pl. 9, figs. 1-22

L. marsicana Farinacci, 1965^{+}

L. mengaudi (Astre, 1923) (*Nummulites mengaudi* Astre, 1923; p. 360)

L. monodi Marie, 1945; p. 433; text-figs. 4-13, 17-23

L. oeztuerki Inan^{+}

L. turcica Inan, 2002; p. 93; pl. 1, figs. 1-5

8.24.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
MAR (15)				X	
DZA (16)				X	
TUN (17)				X	
LBY (18)				X	
MRT (19)				X	
VEN (10)					X
FRA (31)				X	
ESP (32)				X	
ITA (35)				X	
GRC (36)				X	
TUR (38)				X	X
AFG (43)				X	
PAK (46)				X	
HRV (62)				X	
SVN (63)				X	
ZYP (69)				X	
YUGf (74)				X	

Figure 8.94: Stratigraphic range of the genus *Laffitteina* in its reported localities

Laffitteina occurs for the first time in the Maastrichtian with a wide distribution. It is recorded from the western end of the Tethys in Morocco (15; Fleury et al., 1985), Algeria (16; Fleury et al., 1985), Spain (32; Fleury et al., 1985; Caus and Hottinger, 1986; Caus, 1988; Loeblich and Tappan, 1988) to the eastern side of the Tethys in Turkey (38; Fleury et al., 1985; Inan, 1996a, 1996b; Sirel, 1996; Inan, 2002) and further east to Afghanistan (43; Fleury et al., 1985) and Pakistan (46; Fleury et al., 1985). It is particularly remarkable that it is one of the few larger foraminifera, that has not been affected by the mass extinction event at the end of the Maastrichtian (Sirel, 1996) and is also reported from the Paleocene of Turkey (38; Inan, 1996b; Sirel, 1996) and Venezuela (10; Renz, 1955). Due to its wide distribution in the Maastrichtian an origination center can not be identified for the moment.

8.24.4 Biology

Laffitteina occurs in association with *Omphalocyclus*, *Rhapydionina*, *Orbitoides*, *Cuneolina*, *Loftusia*, *Siderolites*, *Hellenocyclina*, and *Sirtina*.

The environment in which *Laffitteina* preferentially lived can be characterized as restricted shelf area. It mainly occurred in lagoonal facies (Caus, 1988; Inan, 1996a) as well as in subtidal-tidal areas (Caus, 1988; Inan, 1996a; Gusic et al., 1998) in the upper photic zone (Hottinger, 1997). The amount of canals in the test hints to a meso-eutrophic environment, maybe in estuaries of tropical shelfs (Hottinger, pers. com.). Inan (1996b) interprets *Laffitteina* to be adapted to somewhat colder conditions, "geographically to the northern part of the Neo-Tethys, between 15 and 30° north".

8.24.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Laffitteina* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Morocco (15): Fleury et al., 1985

Algeria (16): Fleury et al., 1985

Tunisia (17): Fleury et al., 1985

Libya (18): Fleury et al., 1985

Mauritania (19): Loeblich and Tappan, 1988

France (31): Blanc, 1975; Loeblich and Tappan, 1988

Spain (32): Fleury et al., 1985; Caus and Hottinger, 1986; Caus, 1988; Loeblich and Tappan, 1988

Italy (35): Fleury et al., 1985; Loeblich and Tappan, 1988

Greece (36): *Fleury et al., 1979; Fleury et al., 1985; Loeblich and Tappan, 1988; Zambetakis-Lekkas, 1988

Turkey (38): Fleury et al., 1985; Inan, 1996a; Inan, 1996b; Sirel, 1996; Inan, 2002

Afghanistan (43): Fleury et al., 1985

Pakistan (46): Fleury et al., 1985

Croatia (62): Fleury et al., 1985; Gusic et al., 1988; Gusic and Jelaska, 1990

Slovenia (63): Fleury et al., 1985

Cyprus (69): Fleury et al., 1985

Former Yugoslavia (74): Loeblich and Tappan, 1988

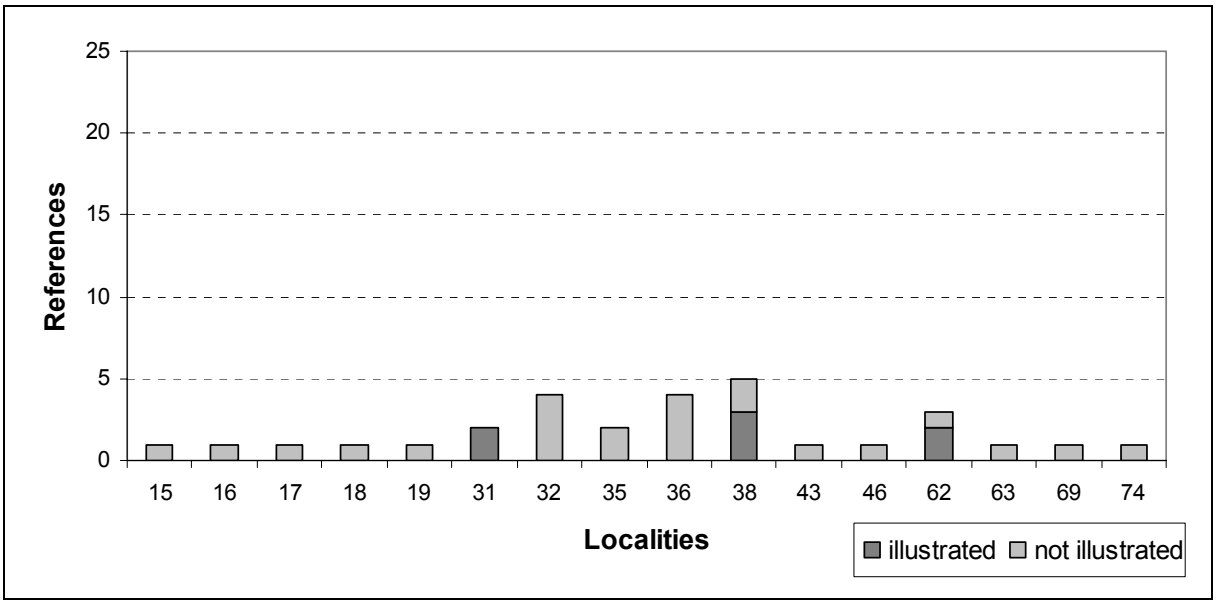

Figure 8.95: Number of illustrated and not illustrated references in the localities of *Laffitteina*

For reasons of clarity the locations Croatia (62), Slovenia (63) and former Yugoslavia (74) are plotted together in location 84 in figure 8.96.

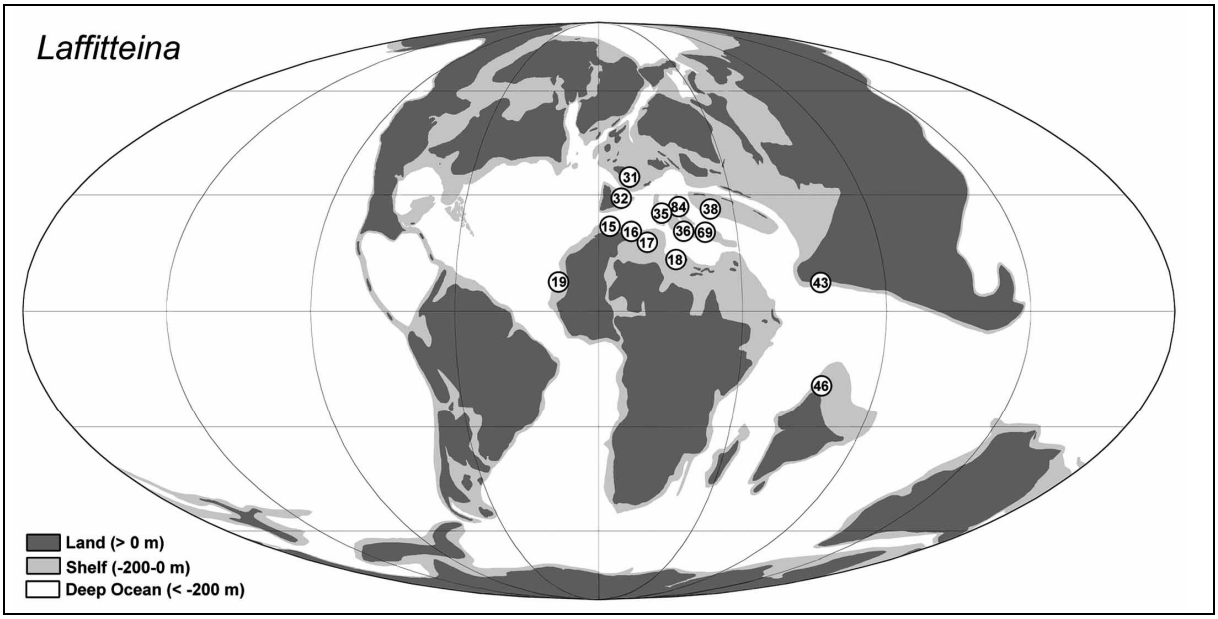

Figure 8.96: Global distribution of *Laffitteina* in the Late Cretaceous

In the Late Cretaceous *Laffitteina* shows a superregional distribution in the Tethyan area. It is densely distributed in southern Europe between France (31; Blanc, 1975), Spain (32; Fleury et al., 1985), Turkey (38; Inan, 1996a, 1996b; Sirel, 1996) and Cyprus (69; Fleury et al., 1985). Also in the western part of North Africa this genus can be found in the Late Cretaceous. It occurs in the region between Morocco (15; Fleury et al., 1985) and Libya (18; Fleury et al.,

1985) as well as in Mauritania (19; Loeblich and Tappan, 1988). There are also two records known from Asia: Afghanistan (43; Fleury et al., 1985) and Pakistan (46; Fleury et al., 1985).

8.24.6 Remarks

Gusic and Jelaska (1990) report ?*Laffitteina* sp. from the Maastrichtian of Croatia. Unfortunately the illustration does not allow confirmation and requires further investigations.

8.25 *Siderolites*

Suborder ROTALIINA Delage and Hérouard, 1896
Superfamily ROTALIACEA Ehrenberg, 1839
Family CALCARINIDAE Schwager, 1876
Genus SIDEROLITES Lamarck, 1801

8.25.1 Description

Siderolites is among the most commonly encountered and most widely known Upper Cretaceous larger foraminiferal genera. Lamarck defined the genus *Siderolites* in the year 1801. The test of *Siderolites* is large, with a more or less distinct star-shape. The diameter is between 0.2 and 1.4 mm (Visser, 1951). It consists of an involute spiral with about four whorls. Several pillars cross the test perpendicular to the direction of coiling from the juvenarium to the outside, where they appear as pustules. In the direction of coiling some thick large spines arise and give the test the starlike appearance.

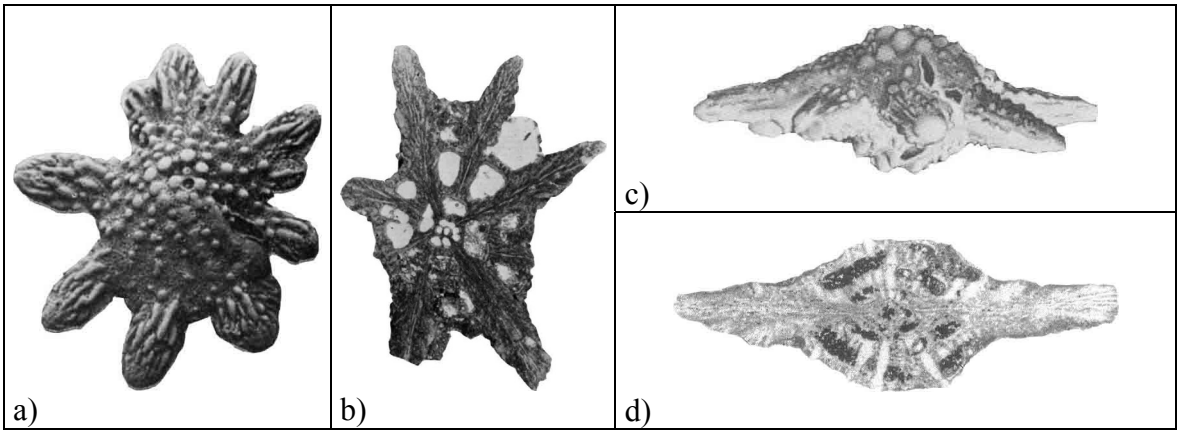

Figure 8.97: a) - d) *S. calcitrapoides* Lamarck; a), b) Wannier, 1983, c) Loeblich and Tappan, 1964, d) Abramovich et al., 2002

8.25.2 Species

Type species: *Siderolites calcitrapoides* Lamarck, 1801^{+}
Synonyms: *Siderolites* Lamarck, 1801^{+}
Siderolithes de Montfort, 1808^{+}
Species: *S. calcitrapoides* Lamarck, 1801^{+}
S. cataluniensis Wannier, 1983^{+}

S. denticulatus Douvillé, 1906[+]

S. heracleae Arni, 1932[+]

S. laevigata Douvillé[+]

S. praecalcitrapoides Neumann, 1986[+]

S. praevidali Andreieff and Neumann, 1983

S. vidali Douvillé, 1906[+]

8.25.3 Age

	Pre-Santonian	Santonian	Campanian	Maastrichtian	Paleogene
CUB (1)			?	X	
DZA (16)				X	
LBY (18)				X	
SAU (22)				X	
OMN (23)			X	X	
YEM (25)				X	
SYR (28)				X	
MDG (29)	?	?	?	?	
BEL (30)				X	X
FRA (31)		X	X	X	
ESP (32)			X	X	
GER (33)				X	
Sicily (34)				X	
ITA (35)				X	
GRC (36)			X	X	
YUG (37)				X	
TUR (38)	?	X	X	X	
ROM (41)				X	
S-IND (44)				X	
N-IND (45)				X	
PAK (46)			X	X	
T-CHN (48)				X	
IRN (56)				X	
NLD (57)				X	X
CHE (58)			X	X	
AUT (59)			X	X	
HRV (62)	?	?	?	?	
SVN (63)				X	
PHL (65)	?	?	?	?	?
ZYP (69)		?	?	?	
SVK/CZE (71)			X		
CHN (73)				X	

Figure 8.98: Stratigraphic range of the genus *Siderolites* in its reported localities

The first secure stratigraphic records of *Siderolites* are from the Santonian of France (31; Séronie-Vivien, 1972) and Turkey (38; Sirel, 1991). From the Campanian it is, beyond further European locations, mentioned from Oman (23; Abdelghany, 2003). The main occurrence is in the Maastrichtian where it is known from European, African and Asian regions. Further there is also one record from Cuba (1; Seiglie and Ayala-Castanares, 1963). Hofker (1966) mentioned *Siderolites* also from the Paleocene of Belgium (30) and the Netherlands (57). It seems that *Siderolites* originated in Turkey in the Turonian with a successive distribution in Europe, Africa and Asia.

8.25.4 Biology

Siderolites mostly occurs in association with *Orbitoides*, *Sulcoperculina*, *Omphalocyclus*, and *Lepidorbitoides*. Moreover the following genera are reported from most of the same locations: *Nummofallotia*, *Dictyopsella*, *Hellenocyclina*, and *Sirtina*.

In most cases *Siderolites* is reported from open platform environments (Azéma et al., 1979; Caus, 1988; Mavrikas et al., 1994), but there are also records, which indicate a protected habitat (Nagappa, 1959; Caus, 1988). It occurs in shallow marine water of the upper photic zone down to about 40 m (Hottinger, 1997). Like its recent relatives it possibly that it lived attached to hard substrate in areas of high water energy (Hottinger, 1983; Hallock and Glenn, 1986; Caus, 1988; Hohenegger, 1999; Langer and Lipps, 2003; Röttger and Krüger, 1990).

8.25.5 Biogeographic distribution and Faunal Province

In the Late Cretaceous *Siderolites* is reported from the following locations (*Senonian/Late Cretaceous records, illustrated records, not illustrated records):

Algeria (16): Fleury et al., 1985

Libya (18): Fleury et al., 1985

Saudi Arabia (22): Fleury et al., 1985

Oman (23): Al-Omari and Sadek, 1976; Abdelghany, 2003

Yemen (25): Sartorio and Venturini, 1988

Syria (28): Fleury et al., 1985

Madagascar (29): Abramovich et al., 2002

Belgium (30): Hofker, 1966

France (31): *Renz, 1936; Papp, 1954; Barrier and Neumann, 1959; Séronie-Vivien, 1972; van Gorsel, 1973a; Wannier, 1980; Andreieff and Neumann, 1983; Wannier, 1983; Neumann, 1993; Caus et al., 1996

Spain (32): Pfender, 1935; Hottinger, 1966; Azéma et al., 1979; Caus and Cornella, 1983; Wannier, 1983; Fleury et al., 1985; Caus, 1988; Neumann, 1993

Germany (33): *Visser, 1951; Hagn, 1971

Sicily (34): *Visser, 1951; Sartorio and Venturini, 1988

Italy (35): *Visser, 1951; *Luperto Sinni, 1966; Busulini et al., 1984; Sartorio and Venturini, 1988

Greece (36): Arni, 1933; *Renz, 1936; *Visser, 1951; Butterlin, 1967; *Fleury, 1977; Zambetakis-Lekkas, 1988; Fleury et al., 1990; Mavrikas et al., 1994

Yugoslavia (37): Papp, 1954

Turkey (38): Sirel, 1991; Özcan, 1993; Caus et al., 1996; Inan, 1996a; Sirel, 1996; *Meric et al., 1997; Özcan and Özkan-Altiner, 1997; Görmüs, 1999; Özcan and Özkan-Altiner, 1999a; Özcan and Özkan-Altiner, 1999b; Özkan-Altiner and Özcan, 1999

Romania (41): Ion, 1975

S-India (44): Nagappa, 1959; Gowda, 1964; McGowran, 1968; Fleury et al., 1985

N-India (45): Nagappa, 1959; Wen, 1987

Pakistan (46): Nagappa, 1959; McGowran, 1968; Kureshy, 1977; Kureshy, 1980; Fleury et al., 1985; Wen, 1987; Weiss, 1993

Tibet (48): Willems et al., 1996

Iran (56): *Cox, 1937; Al-Omari and Sadek, 1976; Kalantari, 1976; Fleury et al., 1985

Netherlands (57): Pfender, 1935; *Renz, 1936; Visser, 1951; Papp, 1954; Hofker, 1966; Wannier, 1980; Wannier, 1983; Fleury et al., 1985; Loeblich and Tappan, 1988

Switzerland (58): Renz, 1936; Bignot and Neumann, 1997

Austria (59): Papp and Küpper, 1953b; Papp, 1954; Papp, 1955b; Papp, 1955c; Papp, 1956; Neumann, 1993; Bignot and Neumann, 1997

Croatia (62): Fleury et al., 1990

Slovenia (63): Bignot, 1972

Cyprus (69): *Renz, 1936

Slovakia (71): Andrusov, 1934; Neumann, 1993

China (73): Gaetani et al., 1980

Pyrenees (31/32): Neumann, 1993; Caus et al., 1996

Czechoslovakia (71/74): Neumann, 1993

N Europe, S Europe, N Africa, Middle East, S USSR, India: Dilley, 1973

Europe, Middle East, India: Loeblich and Tappan, 1988

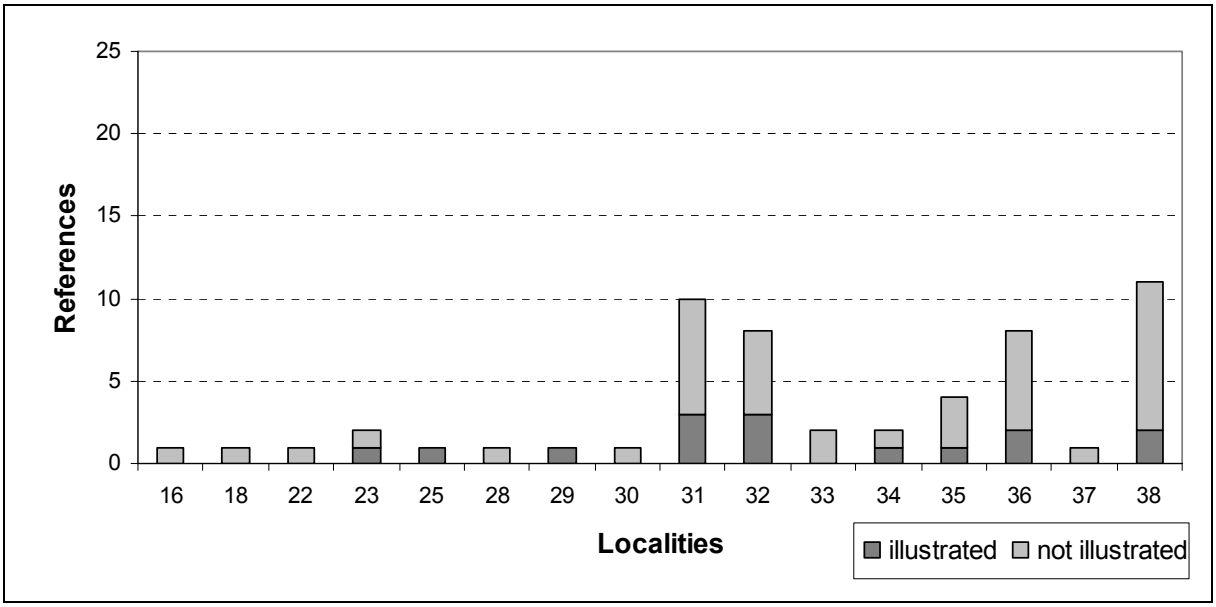

Figure 8.99a: Number of illustrated and not illustrated references in the localities of *Siderolites*

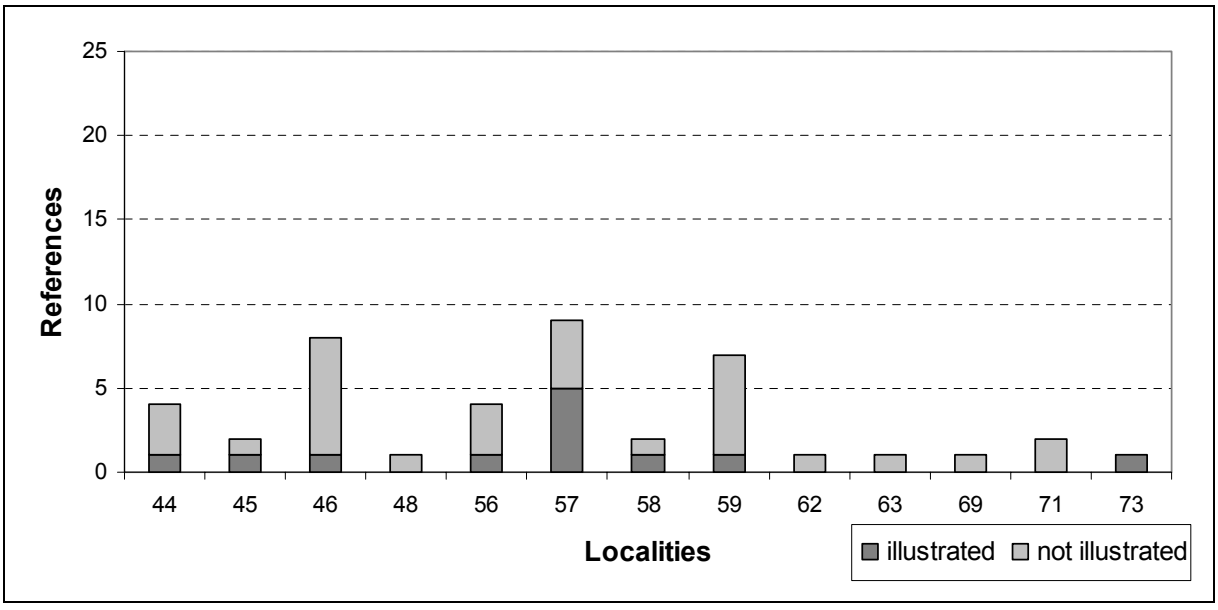

Figure 8.99b: Number of illustrated and not illustrated references in the localities of *Siderolites*

For reasons of clarity the following locations are plotted together in figure 8.100: Belgium (30) and the Netherlands (57) in location 80, Germany (33), Switzerland (58) and Austria (59) in location 82, Yugoslavia (37), Croatia (62), and Slovenia (63) in location 84.

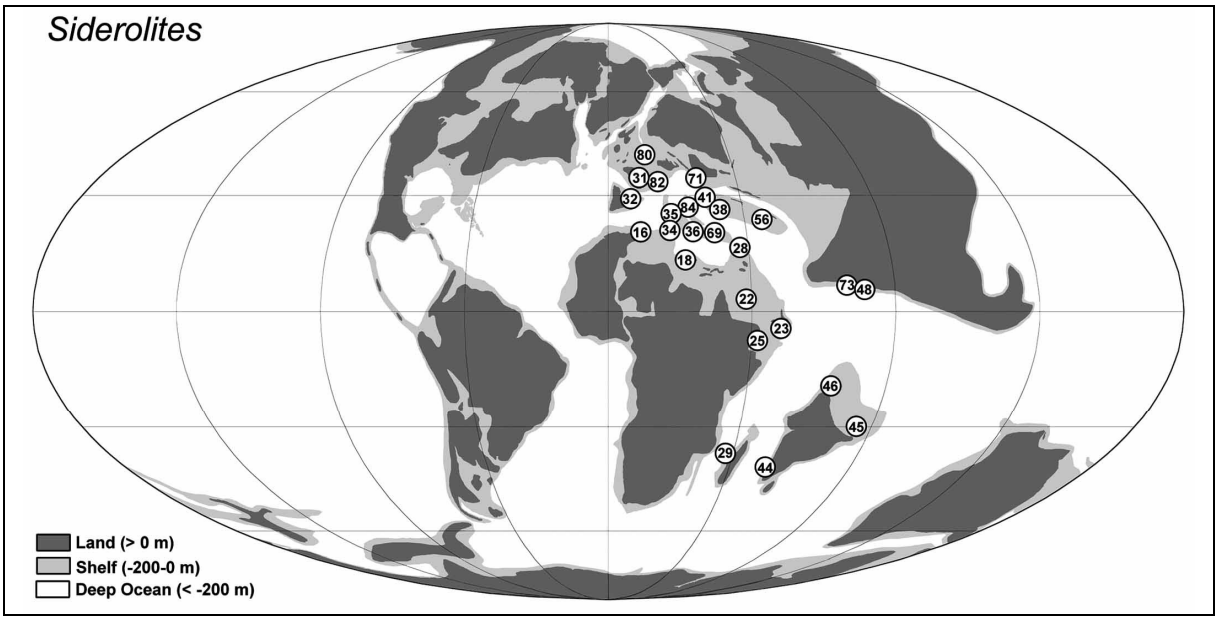

Figure 8.100: Global distribution of *Siderolites* in the Late Cretaceous

The genus *Siderolites* has a superregional distribution in the European and the African Tethys, as well as in the Asian region. As the first occurrence is from the Turonian of Turkey, it is probable that the genus originated in this region. During the Santonian *Siderolites* is only known from Europe, which supports this hypothesis. In the Campanian the first occurrence beyond Europe is from Oman (23; Abdelghany, 2003). In the Maastrichtian *Siderolites* occurs in Europe, Africa and Asia. There is also one record from Cuba (1; Seiglie and Ayala-Castanares, 1963), but this record cannot be verified by illustrations.

Siderolites may represent the Cretaceous analog to the modern star-sand foraminifera that are distributed within the center of diversity in the Asiatic core region.

8.25.6 Remarks

Seiglie and Ayala-Castanares (1963) report *Siderolites vanbelleni* (van den Bold) and *Siderolites skourensis* (Pfender) from the Maastrichtian of Cuba. *Siderolites skourensis*, however, belongs to the genus *Rotalia*. In addition, these records cannot be verified, as there are neither illustrations in the literature nor detailed descriptions of the specimens.

Also the record from Luzon, Philippines (65; Hashimoto et al., 1978a) is doubtful. Here again, there is no figure of ?*Siderolites* sp., and the authors did not describe the specimens.

The illustrated specimens of *Siderolites praevidali*, *S. vidali*, and *S. charentensis* from the Campanian and Maastrichtian of France and Spain (Neumann, 1997) all do not possess protruding spines, which are characteristic for this genus. It is more likely that these forms

belong to the genus ?*Praesiderolites*. Due to the lack of illustration, which could verify the affiliation to the genus *Siderolites*, the specimen of *Siderolites* sp. from the Maastrichtian of the Netherlands and *S. praecalcitrapoides* from the Maastrichtian of France (Neumann, 1997) are not depicted in the distribution map.

Van Gorsel (1973b) report *Siderolites vidali* from the Campanian of France, but the illustration does not show the development of spines.

9 Discussion

The discussion of this thesis is divided into three parts. In the first part an interpretation of the biogeographic distribution patterns of the analyzed larger foraminifera is given. The analysis is mainly based on generic level because a comparison of the global biodiversity patterns of hermatypic corals on generic level (Veron, 1995) and that of mangrove taxa on species level (Rosen, 1988) demonstrated that both show comparable patterns. For verification some foraminiferal taxa were analyzed on species level. When determining distribution patterns, which are the ultimate goals of this work, it is important to understand if a genus is polyspecific (e.g. *Loftusia*, *Orbitoides*, *Pseudorbitoides*), or monospecific (e.g. *Clypeorbis*, *Hellenocyclina*, *Meandropsina*, *Rhapydionina*, *Sirtina*, *Spirocyclina*). Afterwards these patterns will be compared to patterns, which were observed in modern larger foraminifera. The second part comprises the categorization of faunal provinces in the Late Cretaceous and focusses on the difference to those in modern counterparts. In the third section the diversity of the Late Cretaceous larger foraminifera will be analyzed and the development of patterns of biodiversity through time will be discussed.

9.1 Biogeographic Patterns of Larger Foraminifera

The analysis of the global distribution of the 25 genera of Late Cretaceous larger foraminifera revealed that most of these taxa occur in the tropical and subtropical latitudes, which ranges between approximately 30° North and 30° South. This distribution strongly correlates with the Late Cretaceous carbonate platforms distribution (Chapter 2 “Material and Methods”; Figure 2.2), which were situated in a belt between 30° South and 35° North. Therefore it is possible to use warm water carbonates as a hint to the occurrence of larger foraminifera. However, many of the analyzed genera also occur outside of this belt. Some of those genera reach latitudes of 45° North and 40° South. The northernmost locations in Europe are Sweden (site 40), Belgium (30), and the Netherlands (site 57). In North America, Louisiana and Mississippi (site 4) and Texas (site 5), the northernmost locations, do not reach the latitudinal extension of the European sites. The northernmost locations in Asia are Malaysia (site 64) and the Philippines (site 65), which are situated near the Late Cretaceous equator. The extreme distributions of the genera to the north might be the result of the nordwards directed oceanic heat transport from the equator to the poles. In the European area, this phenomenon is supported by the huge carbonate shelf regions. In the Atlantic and in the Pacific coastal

regions, however, the water temperatures were much lower, which results in a restricted northward distribution.

The southernmost locations are Madagascar (site 29) and South-India (site 44). These locations are situated about 40° South. Remarkable is that the southernmost location of South America, Colombia (site 11), is situated near the Late Cretaceous equator. The absence of locations further in the south can be explained by the cold water currents, which result from the Southern Pacific Gyre.

Some patterns in the latitudinal as well as in the longitudinal distribution are particularly prominent. Restricted to the 30° belts are the genera *Loftusia*, *Pseudedomia*, *Raadshoovenia*, and *Rhapydionina*. These genera only occur in the European-African Tethys and do not cross the Atlantic or the Pacific Ocean. The genus *Chubbina* only occurs in the Caribbean region in the northern part of the 30° belt. Also restricted to the European-African region, but with a more northward distribution are the genera *Dictyopsella*, *Lacazina*, *Meandropsina*, *Nummofallotia*, *Clypeorbis*, *Helicorbitoides*, and *Hellenocyclina*. With the exception of the genus *Hellenocyclina*, all these genera exclusively occur in the European Tethyan area. *Hellenocyclina*, however, also occurs in the northern part of Africa. *Spirocyclina* and *Subalveolina* are only known from locations north of the 30° belt. Both genera are endemic to France (site 31). Inside of the belt as well as north and south of the belt occur the genera *Lepidorbitoides*, *Omphalocyclus*, *Orbitocyclina*, *Orbitoides*, *Siderolites*, and *Sirtina*.

Resulting from the above described distribution of the analyzed genera some distinct patterns are obvious. These patterns can be divided into three categories of distribution: 1) regional, 2) superregional, and 3) circumtropical distribution. These categories are distinguished by their geographical extension.

The regional distribution is characterized by a very restricted spatial, “local” extension. The records of a genus are separated by areas of shallow-water or very narrow passages of deep-sea water. This pattern is realized in the genera *Chubbina*, *Lacazina*, *Meandropsina*, *Spirocyclina*, and *Subalveolina*. Their latitudinal and longitudinal distribution does not exceed 15°, and these genera are only found north of the equator. These taxa seem to be very specialized and sensitive to changes in ecological features, such as temperature, habitat or nutrients.

The second category represents a “superregional” distribution, which is characterized by a much wider geographical extension than the regional distribution pattern. This might include a distribution across a broad deep-water seaway, as in the Caribbean region, where during the Late Cretaceous the shallow-water areas of North America and South America were divided

by deep-water passages. It also includes the great distances in the Tethyan area between southern Europe and Africa. The latitudinal distribution ranges between 20° and 40°, the longitudinal extension between 20° and 25°. This distribution pattern is displayed by the genera *Clypeorbis*, *Helicorbitoides*, *Hellenocyclina*, *Loftusia*, *Nummofallotia*, *Pseudedomia*, and *Raadshoovenia*. Some genera show a more expanded distribution: *Laffitteina*, *Siderolites*, and *Sirtina* exhibit a superregional distribution with some distantly situated locations. All these taxa appear to be more tolerant in their ecological constraints than the genera showing a regional distribution. The features limiting their distribution seem to be the availability of stepping stones and the temperature gradient.

The third distribution pattern is global-circumtropical. Here, the genera show a global distribution with a restriction to the subtropical and tropical belt. This pattern is realized in the genera *Lepidorbitoides*, *Omphalocyclus*, and *Orbitoides*.

Beside these categories there are also some genera whose distribution pattern can not be assigned to only one of those categories but show a transition of the different patterns. The genera *Dictyopsella* and *Rhapydionina* show a transition between the regional and the superregional pattern, while a superregional-circumtropical pattern is realized in the genera *Cuneolina*, *Orbitocyclina*, *Pseudorbitoides*, *Sulcoperculina*, and *Vaughanina*. These last genera show a superregional distribution pattern but some of the locations are very far apart. This is mainly realized in genera of the Carribbean area, where some locations are situated far out in the Pacific Ocean. These occurrences can be explained by the existence of suitable stepping stones, which facilitated the distribution towards the west.

The comparison with the biogeographic distribution of modern larger symbiont-bearing foraminifera, which were analyzed by Langer and Hottinger (2000), shows similar patterns. Here again three categories, regional, superregional and global-circumtropical, are distinct. Examples for these patterns are *Cyclorbiculina compressa* (regional distribution), *Marginopora vertebralis* (superregional distribution) and *Amphisorus hemprichii* (global-circumtropical distribution).

Both, modern and fossil biogeographic patterns show that there are great differences in the grade of distribution of symbiont-bearing larger foraminifera. Some genera only occur in a small area, while other genera do not show any restriction in their longitudinal distribution. But what is the reason for this phenomenon? In what way are the global distributed foraminifera different from the others? What mechanisms push these differences, as the mechanisms of distribution are the same in all larger foraminifera, as well as the sea surface

currents are the same too. These questions are quite complicated and still not yet resolved and need therefore further investigations.

As mentioned above the longitudinal distribution needs more investigations but an obvious reason for the latitudinal distribution seems to be the temperature. In the Late Cretaceous the global distribution of larger foraminifera is limited to a belt, which is defined by the 45° North and 40° South latitudes. Today, the latitudinal extention is much narrower. The distribution of modern larger foraminifera is limited to within 36° North and 34° South (Langer and Hottinger, 2000).

The differences are probably due to the extension of climatic belts. The Late Cretaceous was characterized by much higher temperatures than today. This led to higher sea surface temperatures, which enabled the foraminifera to extend towards more polewards regions.

Always a point of great interest is the origination center of the genera. This aspect can be examined with the comparison of the occurrences of the genera in different time slices. The analysis of some genera offers a good possibility for an interpretation (*Clypeorbis*, *Hellenocyclina*, etc.), while other genera do not show such a clear picture.

It is not possible to identify an origination center for following genera: *Chubbina*, *Cuneolina*, *Helicorbitoides*, *Laffitteina*, *Lepidorbitoides*, *Nummofallotia*, *Omphalocyclus, Orbitocyclina*, *Orbitoides, Pseudedomia, Pseudorbitoides, Raadshoovenia, Sirtina,* and *Spirocyclina*, as there are records from several locations at the same time.

The genera *Dictyopsella*, *Loftusia,* and *Siderolites* seem to have been originated in the eastern part of the Mediterranean Tethys, while the fossil record of *Clypeorbis*, *Hellenocyclina, Lacazina*, *Meandropsina*, and *Subalveolina* hints to an origination center in the western part of the Mediterranean Tethys. *Rhapydionina* seems to have originated in the median part. The origin of *Sulcoperculina* and *Vaughanina* is situated in the Caribbean area.

Regarding the aspect of the origination center it has to be mentioned that the fossil record may be incomplete, so that further investigations might change the results.

9.2 Faunal Provinces of Larger Foraminifera

An analysis of the biogeographic distribution pattern of the Late Cretaceous larger Foraminifera led to four Faunal Provinces (FP). These are characterized by the presence and absence of the foraminiferal taxa (Figure 9.1).

	Caribbean FP	European FP - West	European FP - East	African FP	Asian FP
Chubbina	X				
Clypeorbis		X	X		
Cuneolina	X	X	X	X	
Dictyopsella		X	X		
Helicorbitoides		X	X		
Hellenocyclina		X	X	X	
Lacazina		X	X		
Laffitteina		X	X	X	X
Lepidorbitoides	X	X	X	X	X
Loftusia			X	X	
Meandropsina		X			
Nummofallotia		X	X		
Omphalocyclus	X	X	X	X	X
Orbitocyclina	X	X			X
Orbitoides	X	X	X	X	X
Pseudedomia		X	X	X	
Pseudorbitoides	X				
Raadshoovenia		X	X	X	
Rhapydionina			X	X	
Siderolites		X	X	X	X
Sirtina		X	X	X	
Spirocyclina		X			
Subalveolina		X			
Sulcoperculina	X				
Vaughanina	X				

Figure 9.1: Late Cretaceous Faunal Provinces (FP) and their larger foraminiferal content

The Faunal Provinces (FP) are named after their geographical position: 1) Caribbean FP, 2) Asian FP, 3a) European FP, and 3b) African FP (Figure 9.2).

The Caribbean Faunal Province (CFP) comprises the “modern” Caribbean from the southern USA (Florida, Louisiana, Mississippi, and Texas), along Mexico, Guatemala, Puerto Rico, Cuba, Jamaica, Haiti, to Venezuela and Colombia. Hawaii, the Line Islands and the Marshall Islands in the Pacific Ocean also belong to the CFP. As is discussed in chapter 4.2

"Paleoceanography" in the Late Cretaceous, these islands were situated closer to the Caribbean region and shallow-marine "stepping-stones" facilitated the distribution from the Caribbean. It is prominent that the CFP is mainly situated on the northern hemisphere. The extension of this faunal province is limited by the presence of the genera *Chubbina*, *Pseudorbitoides*, *Sulcoperculina*, and *Vaughanina*. The CFP is also defined by the absence of the following genera: *Clypeorbis*, *Cuneolina*, *Dictyopsella*, *Helicorbitoides*, *Hellenocyclina*, *Lacazina*, *Laffitteina*, *Loftusia*, *Meandropsina*, *Nummofallotia*, *Pseudedomia*, *Raadshoovenia*, *Rhapydionina*, *Siderolites*, *Sirtina*, *Spirocyclina*, and *Subalveolina*.

The Asian Faunal Province (ASP) includes the area between India, Pakistan, the Philippines, and Australia. The southernmost location in this province is South India (44), which is situated around 40° S. It is the southernmost record of all analyzed larger foraminifera in the Late Cretaceous. The Asiatic region is the most widely spread and complicated faunal province of all. This is due to the paleogeographic situation. The broad seaway of the Pacific Ocean separates the three major shelf regions, which occur along the Asiatic continent in the north, and India and Madagascar in the south. There are no "stepping stones" like in the Caribbean Faunal Province. The Pacific Islands did not yet exist or were much closer to the American continents (e.g. Nauru, the Line Islands, Hawaii) and therefore belong to the Caribbean Faunal Province as discussed previously. Contrary to the Caribbean Faunal Province, the ASP is predominately situated on the southern hemisphere. The number of genera that occur in this region is small. Unlike the other Late Cretaceous Faunal Provinces, the ASP is not characterized by endemic taxa. Instead, the presence of circumtropical taxa (*Lepidorbitoides*, *Omphalocyclus*, and *Orbitoides*) and the absence of all other analyzed genera define this Faunal Province. Additionally there are few records of *Laffitteina*, *Orbitocyclina*, and *Siderolites* in this Province, but these are restricted to the western part of the Province.

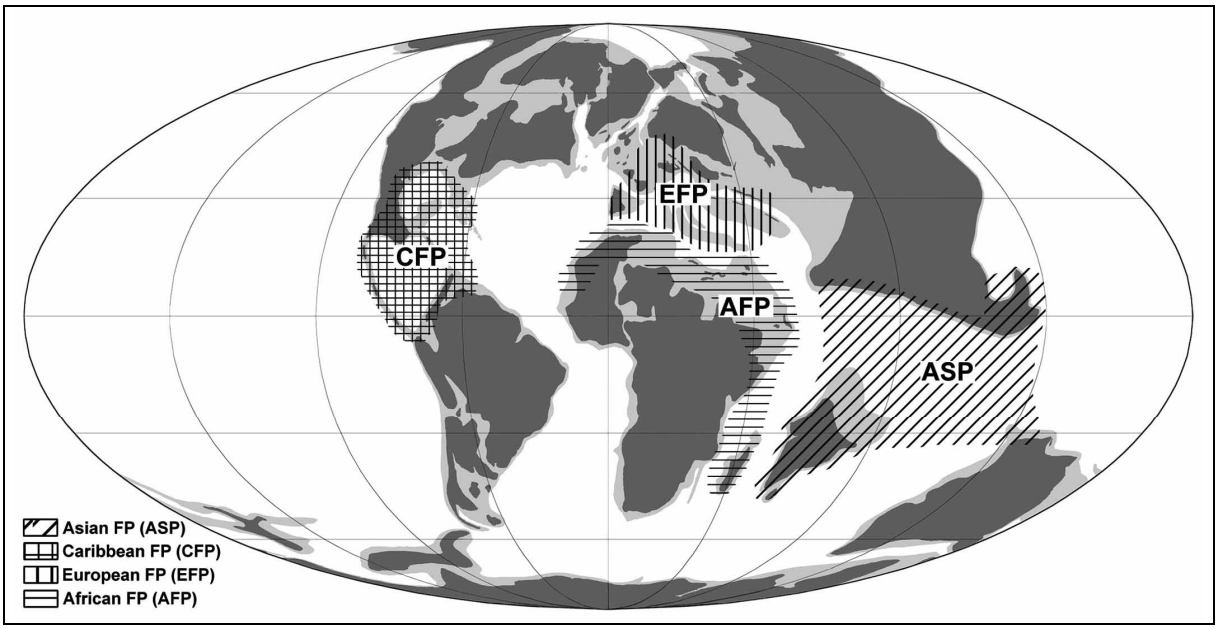

Figure 9.2: Late Cretaceous Faunal Provinces

A major biogeographic region is the Mediterranean Tethyan area between Europe and Africa. This realm is divided in the European Faunal Province (EFP) and the African Faunal Province (AFP). These are characterized as subprovinces, as they adjoin in the Tethys where the limits often cannot strictly be drawn. Most of the genera show a main distribution in the European part of the Tethys with only few records from the African part (e.g. *Cuneolina*, *Hellenocyclina*, *Raadshoovenia*, *Rhapydionina*, and *Sirtina*). Contrary, a dominant distribution in the African Tethys with few records from the European part is not realized. This would support the assumption that the center of origin is situated in the European Faunal Province and that the occurrences in the African Tethys are the result of dispersion.

The European Faunal Province ranges between Spain (32), Sweden (40), South Russia (42) and Iran (56). The southern border is marked by the locations Sardinia (72), Sicily (34), Greece (36), and Cyprus (69). The northernmost location in the EFP is southern Sweden (40). It is situated about 45° N. It is the northernmost location in the distribution of the analyzed Late Cretaceous larger foraminifera. The European Faunal Province, which is completely positioned on the northern hemisphere, bears a particularly high diversity, which includes the presence of the genera *Clypeorbis*, *Cuneolina*, *Dictyopsella*, *Helicorbitoides*, *Hellenocyclina*, *Lacazina*, *Laffitteina*, *Lepidorbitoides*, *Loftusia*, *Meandropsina*, *Nummofallotia*, *Orbitocyclina*, *Orbitoides*, *Omphalocyclus*, *Pseudedomia*, *Raadshoovenia*, *Rhapydionina*, *Siderolites*, *Sirtina*, *Spirocyclina*, and *Subalveolina*. The EFP further seems to be divisible into a western and an eastern part. The western part comprises the locations between Sweden

(40), Belgium (30), the Netherlands (57), France (31), Portugal (39), Spain (32), Switzerland (58) and Austria (59). The localities east of Italy (35) and Sicily (34) belong to the eastern part. The split is clearly visible in the genera *Lacazina*, *Meandropsina*, *Spirocyclina*, and *Subalveolina* whose occurrence in the Tethyan area is restricted to the western part, whereas *Loftusia* and *Rhapydionina* only occur in locations, which are situated in the eastern part. The genera *Chubbina*, *Sulcoperculina*, *Pseudorbitoides*, and *Vaughanina* are absent from the EFP.

The African Faunal Province comprises the locations, which are situated on the continental shallow water shelf along North Africa between Morocco (15), Syria (28), Oman (23), and Somalia (26). Further, this Faunal Province also contains a location in West of Africa, Mauritania (19), as well as in Madagascar (29). As discussed above, this Faunal Province is closely related to the European Faunal Province. There are no genera that exclusively occur in the AFP, they always also occur in the European Faunal Province. The AFP is characterized by the presence of *Cuneolina*, *Hellenocyclina*, *Laffitteina*, *Lepidorbitoides*, *Loftusia*, *Omphalocyclus*, *Orbitoides*, *Pseudedomia*, *Raadshoovenia*, *Rhapydionina*, *Siderolites*, and *Sirtina*, and the absence of Caribbean genera (*Chubbina*, *Pseudorbitoides*, *Sulcoperculina*, and *Vaughanina*) and endemic European genera (*Clypeorbis*, *Dictyopsella*, *Helicorbitoides*, *Lacazina*, *Meandropsina*, *Nummofallotia*, *Spirocyclina*, and *Subalveolina*).

A comparison of the Faunal Provinces from the Late Cretaceous with those of the Tertiary and today shows strong analogies. In every time slice three major regions, the Caribbean, the Tethyan and the Asiatic one, are distinguishable.

The three faunal provinces of the Tertiary, 1) Central America, 2) Tethys, and 3) Indo-West Pacific, which Adams (1967, 1983) has established, have nearly the same extensions as the Late Cretaceous ones. Adams (1967) also notes a split of the Tethys in a western part, the Mediterranean, and an eastern part that comprises the area east of Iran and Iraq. Adams (1967) also interprets the area in the western Tethys as a center of dispersal in the Paleogene.

The comparison with the modern faunal provinces indicates more differences. The extension of the Caribbean Faunal Province is nearly the same, with the exception that in the Late Cretaceous some of the Pacific Islands (Nauru, the Line Islands, and Hawaii) were situated closer to the American continents, so that they are attached to the Caribbean Faunal Province. In the other two realms the differences are more distinct. The Late Cretaceous subdivision in the Tethys does not exist today. Instead there is one faunal province at the western side of the Indian Ocean, which is certainly due to the geographic situation. While in the Cretaceous a broad seaway dominated this region, this connection is interrupted today. In the Asian region this circumstance is reversed. In the Late Cretaceous one Faunal Province was situated in this

region while today two faunal provinces, the Inner, Central Pacific province and the Central Indopacific realm are present. This again is explained by the geographic setting. In the Late Cretaceous this region was dominated by a huge seaway without intercalated islands, while today this region is the most differentiated region at all.

The latitudinal extension of the faunal provinces has also changed significantly. While in the Late Cretaceous the maximal extension was between 45° North and 40° South Latitude, the modern faunal provinces do not exceed 35° North and South (Langer and Hottinger, 2000). The occurrence of larger foraminifera during the Tertiary is roughly given with around 50° North and 50° South (Adams, 1967). These variances can be explained with the changes in temperature throughout the earth history. The Cretaceous and the Tertiary climates were much warmer than today, which resulted in a much broader subtropical and tropical belt.

9.3 Diversity of Larger Foraminifera

On the basis of the biogeographical distribution of the larger foraminifera it is possible to make statements about the diversity in the Late Cretaceous. This discussion is based on generic level. In appendix 13.4 “Diversity in the Localities” the existence of the analyzed foraminiferal genera in the different locations is given. The diversity can be expressed in several ways.

In the first method, the number of genera in each location of the different Faunal Provinces (Figures 9.3a-d) is given. By this way a survey of the spatial distribution of diversity within a Faunal Province becomes clear. The diversity peaks can be located and characterized. Similar characteristics of the diversity maxima in the Faunal Provinces hint at the constraints, which rest on the ecological environments of the larger foraminifera.

In the Caribbean Faunal Province (Figure 9.3a) the diversity is by far highest at Cuba (site 1). Here, 9 of the analyzed 25 genera occur, which is 36 % of all genera under consideration. Florida and South Mexico (sites 2 and 3) each contain 7 genera (28 %), while in Venezuela (site 10) 6 genera occur (24 %). The lowest diversity can be found in Honduras, Veracruz, Papua New Guinea, and Bahamas (sites 8, 14, 51 and 21), each with only one genus.

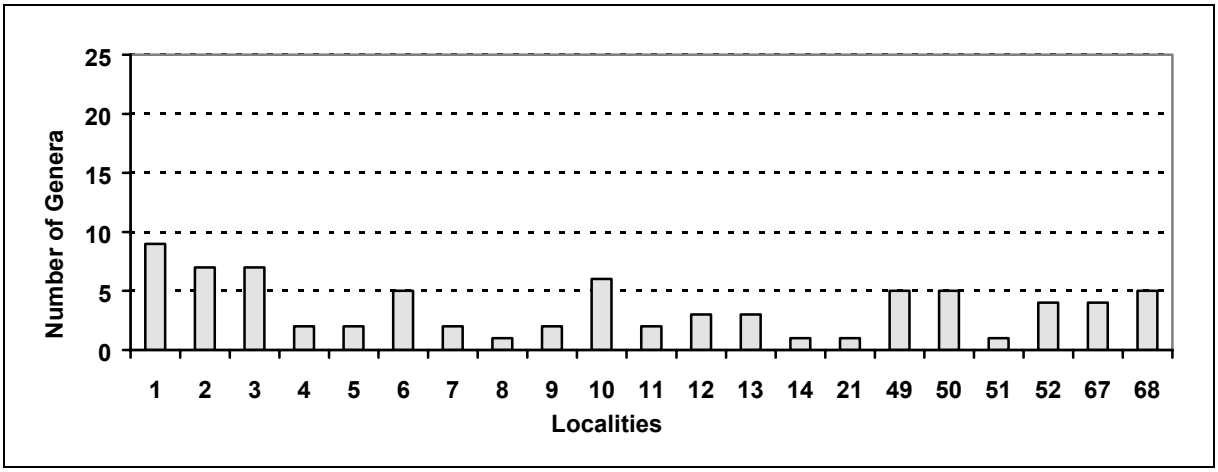

Figure 9.3a: Number of genera in the locations of the Caribbean Faunal Province

The northernmost locations, Louisiana and Mississippi and Texas (sites 4 and 5) contain a very low diversity, which is probabely due to the lower temperature. A very astonishing aspect is the content of some isolated locations. In the Late Cretaceous the Line Islands, Nauru, and Hawaii (sites 49, 50 and 67) were connected to the American landmasses by

"stepping stones", but still isolated by deep-water areas. However, they contain a relative high number of genera.

In the European area (Figure 9.3b) the highest diversity is found in France (site 31) with 17 genera, which represents 68 % of the genera, followed by Spain (site 32) with 16 of the 25 genera, which represents 64 %. Greece and Turkey (sites 36 and 38) contain 14 genera (56 %). This pattern is interesting as both peaks are situated at the opposite ends of the European Faunal Province. These peaks are followed by Italy (site 35) with 12 genera (48 %) and Yugoslavia (site 37) with 10 genera (40 %).

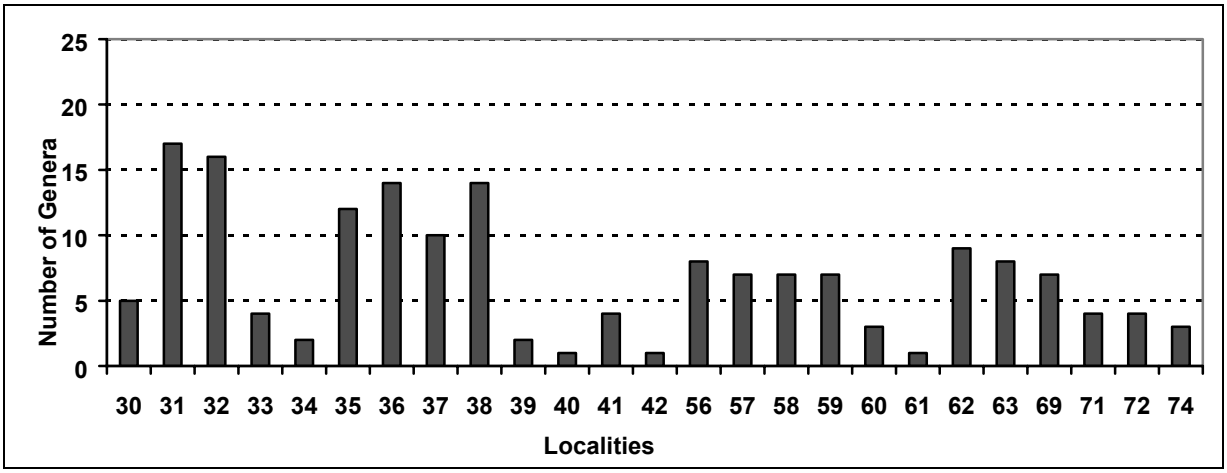

Figure 9.3b: Number of genera in the locations of the European Faunal Province

The lowest diversity is found in Sweden, South Russia, and Albania (sites 40, 42 and 61) each with a single genus. The northernmost location in the European Faunal Province is Sweden, where the temperature is less high than in the south of the Province, which is reflected in the low diversity.

In Africa (Figure 9.3c) the maximum diversity can be found in the eastern region. Iraq and Libya (sites 27 and 18) contain 6 genera (24 %).

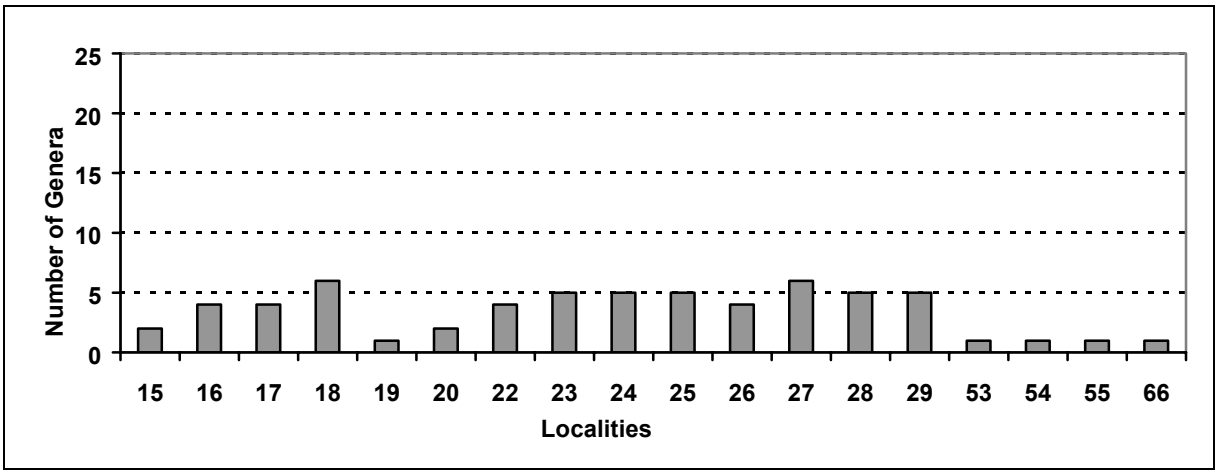

Figure 9.3c: Number of genera in the locations of the African Faunal Province

Mauritania, Israel, Lebanon, Kuwait, and the United Arab Emirates (sites 19, 53, 54, 55 and 66) display the lowest diversity with only one genus. Mauritania is situated at the western coast of Africa, which explains the low diversity. The low diversity in Israel, Lebanon and Kuwait are conspicuous as they are situated in direct neighborhood to Iraq, where the diversity is very high. This might be explained with a lack in the fossil record or in sampling. The same situation is in the United Arab Emirates, which lies between Oman (site 23) and Qatar (site 24), each showing a moderate diversity. Astonishing is also the diversity of Madagascar (site 29). It is the second-most southern location, but shows with 5 genera a relative high diversity.

The Asian Faunal Province (Figure 9.3d) contains only a small number of the analyzed genera. In Pakistan (site 46) 5 genera (20 %) occur, and Tibet (site 48) contains 4 genera (16 %).

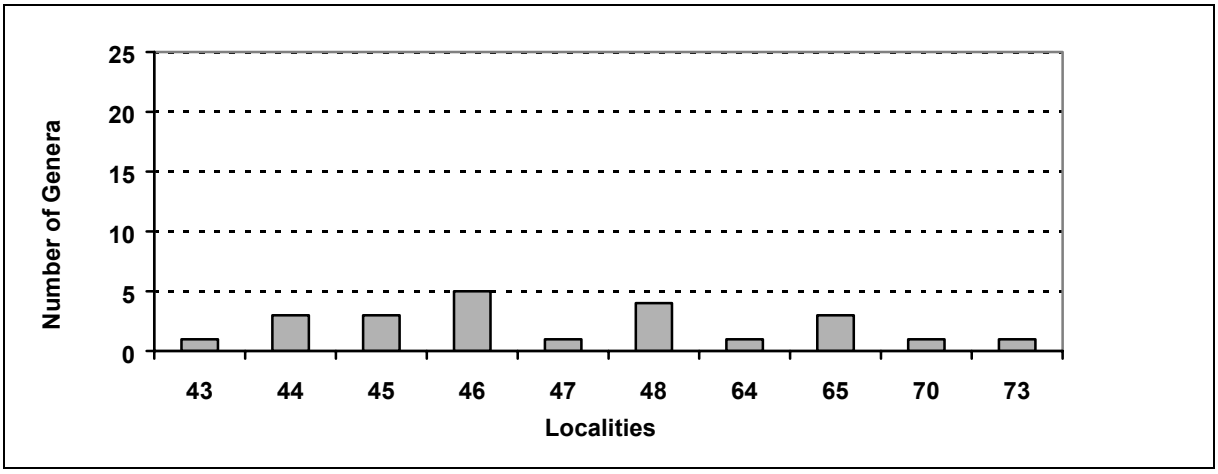

Figure 9.3d: Number of genera in the locations of the Asian Faunal Province

Pakistan, North India, South India, and the Philippines (sites 46, 45, 44 and 65) are characterized by wide shelf areas, which explain the higher diversity. Tibet, however, does not show this character, but also contains a high diversity. The locations in the neighborhood of Tibet, Afghanistan (site 43), and China (site 73) exhibit only a low diversity.

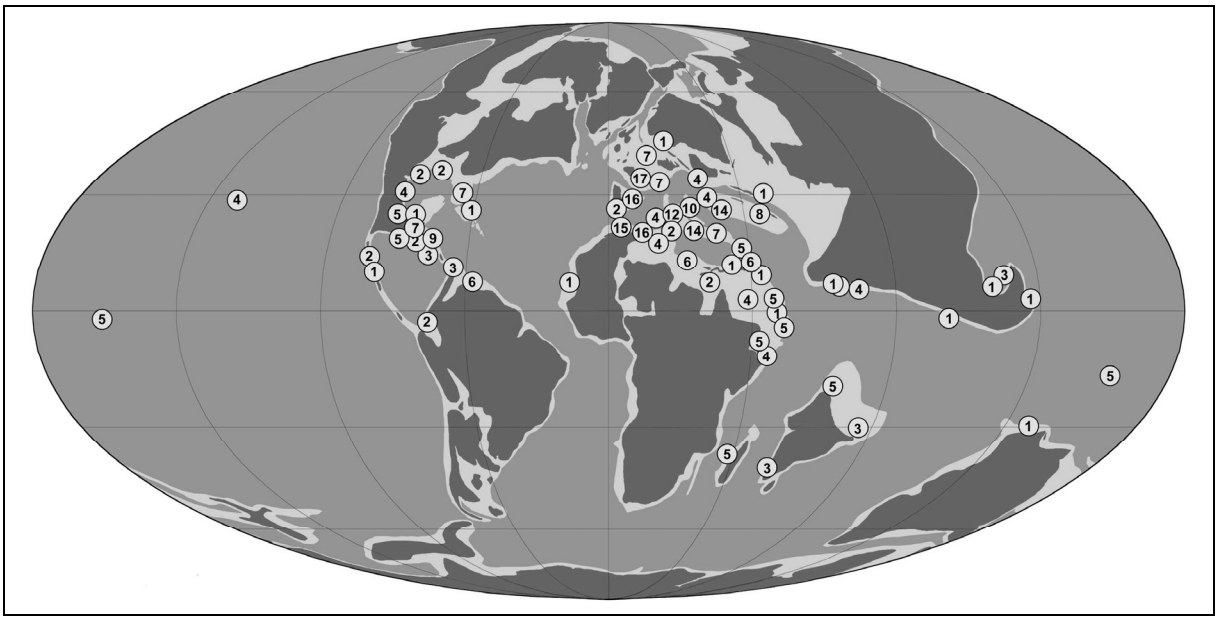

Figure 9.4: Number of genera in the locations

The position of the diversity peaks in the four Faunal Provinces (Figure 9.4) clearly shows that the diversity varies strongly within each province. Often this can be explained by the exposed geographic situation. The locations with a high diversity are mostly characterized by a huge shelf region. Further they are mostly situated in a great distance to the coast, which prevents the contamination of the water with terrestric sediments from rivers. These settings provide an ideal living environment for the larger foraminifera, which require warm, oligotrophic habitats.

A second method to illustrate the diversity, which is also a geographical approach, is the comparison between the Faunal Provinces (Figure 9.5). In this case the number of genera, which occur in the whole Faunal Province, is determined and compared with the diversity of the other Faunal Provinces.

Here it is important to look at the entire province. Cuba in the Caribbean Faunal Province, for example, contains 9 genera, which represents a high diversity for the location. But in the Caribbean realm not more than 9 different genera occur, while in the African Faunal Province 12 genera occur. However, these genera do not occur all in one location but are distributed

over the whole province, so that the highest number of foraminifera, which occur in an African location, is 7.

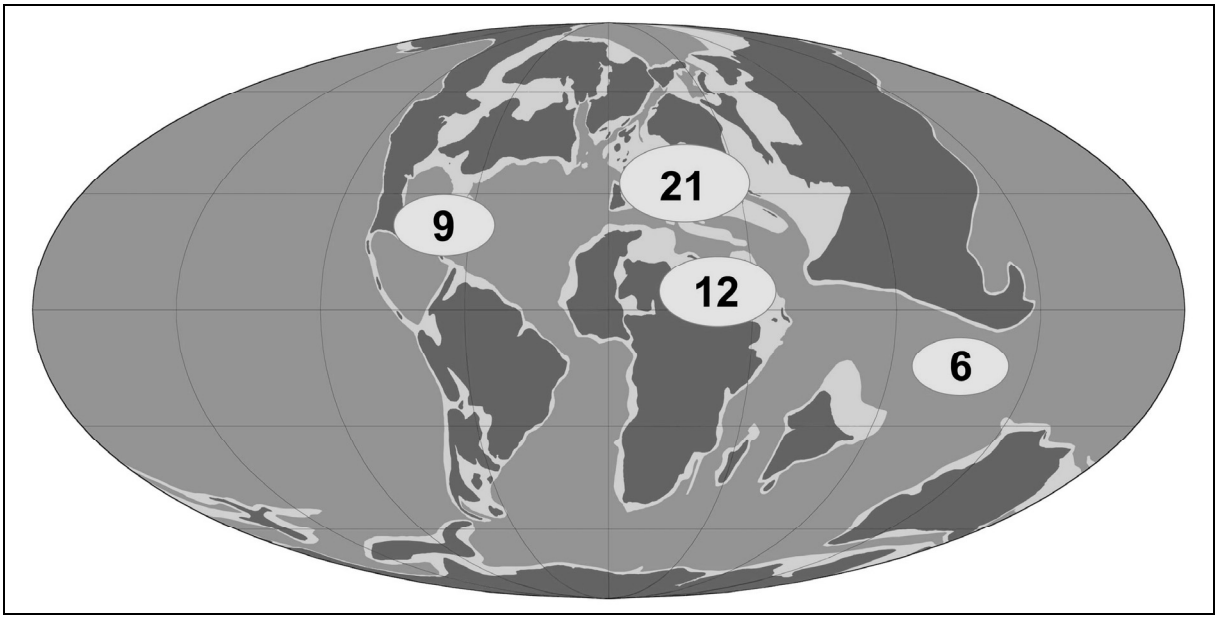

Figure 9.5: Generic diversity of Late Cretaceous larger foraminifera (number of genera)

In the Late Cretaceous 21 of the 25 analyzed genera of larger symbiont-bearing foraminifera occur in Europe. In Africa 12 genera occur, while the Caribbean realm contains 9 and the Asian region 6 genera. With 84 % of the analyzed genera the European area is the hotspot of generic diversity of larger symbiont-bearing foraminifera in the Late Cretaceous (Figure 9.6). Africa shows a minor diversity peak with 48 % of the analyzed genera. In the Caribbean realm the diversity contains 36 %, while the diversity is lowest in the Asian region with 24 %.

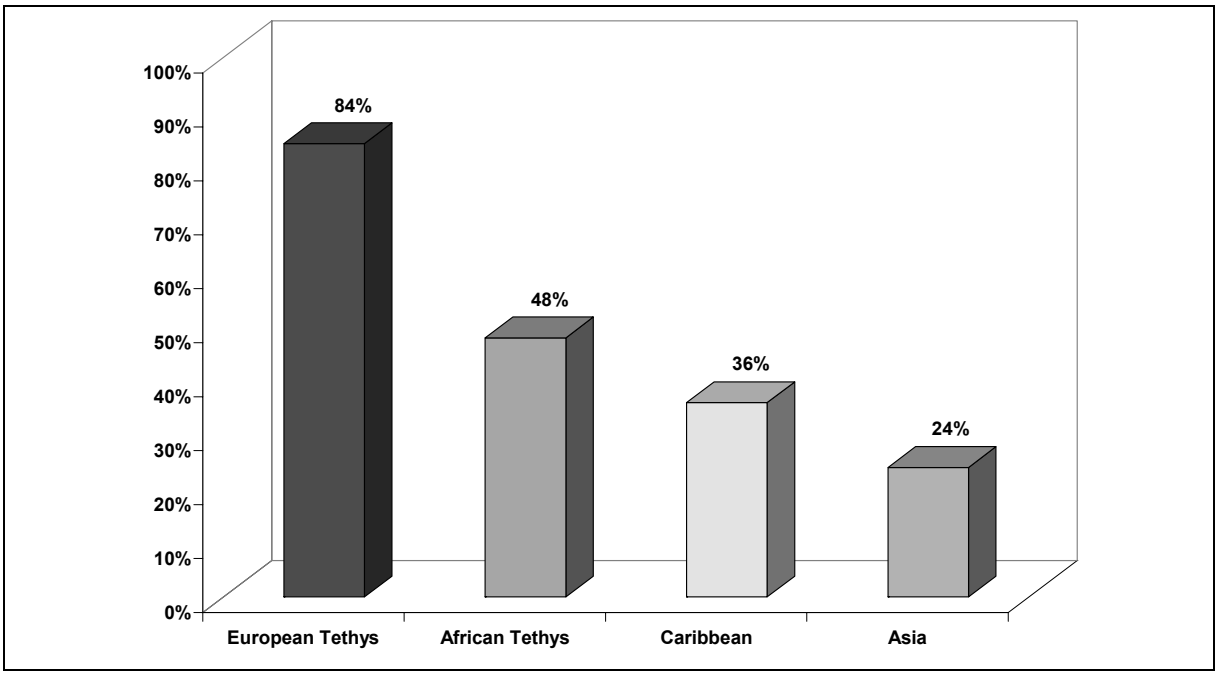

Figure 9.6: Percentage of the global diversity in the Faunal Provinces

It is very distinct that the diversity in the European Tethys with 84 % of the occuring genera is the highest of the prevailing Faunal Provinces. It is nearly twice the diversity of the African Tethys (48 %) and the Caribbean region (36 %) and three times as high as the diversity in the Asian region (24 %). However, the question remains why the number of genera is so various in the adjacent Faunal Provinces like in the European and African Tethys.

A third approach to evaluate diversity is to plot the value of diversity against the latitude (Figure 9.7). The number of the occuring genera at latitudes between 40° N and 40° S is summarized. Thereby the biogeographic provinces are not taken into consideration.

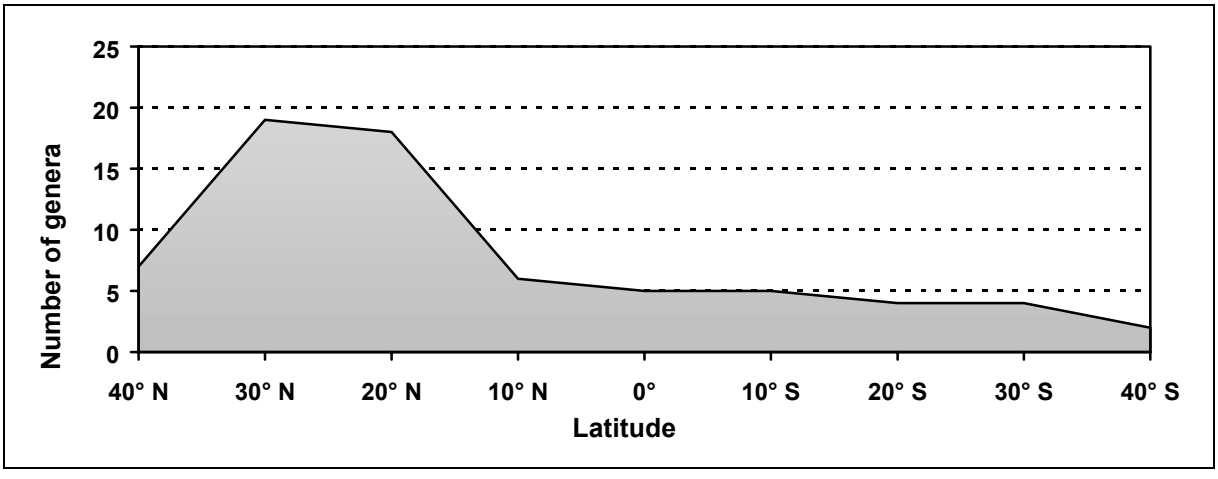

Figure 9.7: Diversity of Late Cretaceous larger foraminifera related to the latitude

The diagram in figure 9.7 clearly shows that the diversity of Late Cretaceous larger foraminifera is highest in the northern hemisphere between 20° and 30° North. In this region about 76 % of the analyzed genera occur. The diversity strongly decreases towards the north but also towards the equator. On the southern hemisphere the diversity is only a fourth of this value.

These patterns of Late Cretaceous diversity are strikingly different from the modern pattern of diversity of shallow-water organisms (larger foraminifera, mangroves and hermatypic corals, see Figures 7.2-7.4), where the diversity peak is situated at the equator and decreases towards the poles. The reason for the modern diversity pattern can be found in the sea surface temperature, which is analoguous to this pattern (see Figure 7.6). The difference in the Cretaceous diversity pattern shows that the temperature is not the only constraint for the diversity. In the Late Cretaceous the solar irradiation was also highest at the equator like today, but the temperature does not correlate with the diversity pattern.

As a consequence, the larger foraminifera, which are restricted to warm water, show a higher occurrence towards the equator. Higher temperatures also increase the mutation rates, which are responsible for speciation and thus diversity. The peak in the Late Cretaceous record is not quite consistent, which is probably due to the availability of habitats.

The approach of illustrating the diversity related to the faunal provinces shows a distinctly different pattern. While in the Late Cretaceous the highest diversity of larger foraminifera can be found in the European area, the center of diversity today is situated in the Indopacific region (compare Chapter 7 “Diversity pattern”). The reasons for this displacement can be found in an assessment of the features, which are responsible for the creation of high diversity regions.

In modern oceans the available habitats, with shallow warm water, are largest in the Indopacific Region. This area is characterized by a huge shelf region with the highest percentage of reefs in the world (Figure 7.5), which implies a high number of different habitats. By contrast, in the Late Cretaceous the European Tethys contained the most reefs. Numerous islands interrupted the huge shelf region, which provided a variety of habitats. In addition, in the modern Indopacific as well as in the Cretaceous European Tethys, the water temperatures remain high throughout the year. The solar insolation warms up the shallow shelf regions, while warm surface currents bring in warm water. These facts support a high genetic mutation rate, which increases the biodiversity.

10 Conclusions

The analysis of the biogeographic distribution of 25 genera of Late Cretaceous (Santonian-Maastrichtian) larger symbiont-bearing foraminifera led to following conclusions:

1) Distribution pattern:

The taxa show different distribution patterns, reaching from local to global. These patterns are distinguishable by their geographical size and were categorized in

a) regional,
b) superregional, and
c) circumtropical units.

The extension of these units is due to the ecological constraints required by the larger foraminifera. Regional taxa are very specialized in temperature, nutrients and habitat, while superregional taxa are restricted by the availability of stepping stones and temperature. Circumtropical genera are mainly limited in their distribution by temperature. This leads to the conclusion, that temperature and ocean currents are the main factors that regulate the distribution.

The comparison to the biogeographic distribution patterns of modern larger foraminifera shows similar patterns and the classification into three different biogeographic units is possible. A distinct feature in this comparison is that the latitudinal extension of the Late Cretaceous larger foraminifera is much wider to the North and to the South. While today the extension reaches 35° North and 35° South, in the time slice under consideration the foraminiferal distribution is between 45° North and 40° South. This can be explained by the much warmer sea surface temperatures in the Late Cretaceous. Another factor is the Cretaceous paleogeography. In the Late Cretaceous most of the shelf regions existed on the northern hemisphere, especially in the European-North African Tethys.

2) Faunal Provinces:

Based on the biogeographic distribution of the foraminiferal genera four Faunal Provinces (FP) could be established:

a) Caribbean FP,
b) Asian FP,
c) European FP, and
d) African FP.

These bioprovinces are characterized by the presence and absence of certain genera. In the Tertiary three Faunal Provinces existed, which show nearly the same extensions, while modern larger foraminifera can be allocated to four Faunal Provinces that are distinctly different.

3) Diversity:

The diversity of the Cretaceous larger foraminifera in the several Faunal Provinces can be expressed in percentage of all analyzed genera:

a) European Faunal Province (EFP): 84 %
b) African Faunal Province (AFP): 48 %
c) Caribbean Faunal Province (CFP): 36 %
d) Asian Faunal Province (ASP): 24 %

The diversity maximum of Late Cretaceous larger foraminifera is situated in the northern hemisphere in the European Faunal Province. In the African Faunal Province, the diversity is nearly half from the EFP, but still much higher than in the Caribbean Faunal Province. The lowest diversity is in the Asian Faunal Province, where the diversity is nearly a fourth of the diversity of the EFP. The diversity plotted against latitude shows a diversity peak between 20° and 30° North, where 76 % of all genera are present. The diversity in the northern hemisphere is three times higher than on the southern hemisphere. In modern larger foraminifera the diversity is situated in the Indopacific Region, which is situated near the modern equator.

4) Causal Mechanisms:

The question remains which mechanisms drive these diversity patterns and causes the changes in earth history. This cannot be elucidated completely, because many aspects are involved, which influence each other. Some of the main factors are:

a) Temperature
b) Sea surface currents
c) Paleogeography

The largest shelf regions are situated on the northern hemisphere, in the European area. This correlates with the diversity maximum, which is situated in the EFP. The relation diversity/latitude supports this theory. The comparison of historical and modern patterns of biodiversity and Faunal Provinces shows that the driving mechanisms are the same through Earth History and can thus be used to solve geologic problems of the past.

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13 Appendix

13.1 Sampling Material

Messinia, SW-Peloponnes (Greece): 21.07.-28.07.2003

GRC03-01: Main entrance of Neo Castro, Pylos; Maastrichtian or Middle Eocene; Thin sections: GRC-01a, GRC-01b

GRC03-02: outcrop road Pylos - Methoni, rigth departure at „Club Paradiso“; shortly before crossing; Upper Eocene or Middle Eocene; Thin sections: GRC-02a, GRC-02b, GRC-13a, GRC-13b

GRC03-03: left road at crossing of GRC03-02; western side of Mont Ayios Nikolaos; left road at crossing at waste dump; Upper Cretaceous or Maastrichtian or Paleocene and Lower Eocene; Thin sections: GRC-03, GRC-12a, GRC-12b

GRC03-04: road Pylos - Methoni; right departure at „Club Paradiso“ to „Paint Center“; outcrop directly at departure; Upper Eocene; Thin sections: GRC-04a, GRC-04b

GRC03-05: coast north of Methoni; south of island Kaliona; Upper Cretaceous; Thin sections: GRC-05a, GRC-05b

GRC03-06: road Methoni - Pylos; opposite of departure to Pidhasos and Kalithea; outcrop behind church; Maastrichtian or Middle Eocene; Thin sections: GRC-06-1a, GRC-06-1b

GRC03-07: hill south of Mont Ayios Nikolaos; same level as northern end of island north of Kaliona; Upper Cretaceous or Maastrichtian; Thin sections: GRC-07a, GRC-07b

GRC03-08: east of GRC03-07; Maastrichtian; Thin sections: GRC-08-1a, GRC-08-1b

GRC03-09: east of GRC03-08; Maastrichtian or Middle Eocene

GRC03-10: eastern side of plateau south of Mont Ayios Nikolaos; acre at directly at fence; Middle Eocene

GRC03-11: south of Pylos; departure to hospital; way down to the coast, same level as waste dump; left side of road; Maastrichtian; Thin sections: GRC-11a, GRC-11b

Tremp, Catalonia (Spain): 29.09.-03.10.2003

ESP03-01: N 42°02’105“, E 000°53’057“; Santonian

ESP03-02: N 42°01’908“, E 000°53’005“; accuracy 44 m; Cénomanian, shallow platform; Thin sections: ESP-02a, ESP-02b

ESP03-03: N 42°01’991“, E 000°53’015“; accuracy 7 m; Lower Santonian; Thin sections

ESP03-04: N 42°02’020“, E 000°53’029“; accuracy 18 m; Santonian; Thin sections: ESP-04a, ESP-04b

ESP03-05: N 42°02’056“, E 000°53’025“; accuracy 6 m; Santonian; Thin sections: ESP-05a, ESP-05b

ESP03-06: N 42°02’231“, E 000°53’063“; accuracy 30 m; Santonian

ESP03-07: N 42°00’690“, E 000°52’620“; accuracy 18 m; Eozän, Ilerdian; Thin sections: ESP-07a, ESP-07b

ESP03-08: N 42°02’334“, E 000°44’387“; accuracy 9 m; Santonian; Thin sections

ESP03-09: Montsech; Santonian

ESP03-10: N 42°12’826“, E 000°53’438“; accuracy 4 m; Santonian

ESP03-11: N 42°12’068“, E 001°00’077“; accuracy 6 m; Lower Santonian

ESP03-13: N 42°09’454“, E 000°50’376“; accuracy 11 m; Eozän, Ilerdian

ESP03-14: N 42°09’258“, E 000°51’447“; Thin sections

ESP03-15: Weg zum Castello de Mur; N 42°05’381“, E 000°52’221“

Material provided by Prof. Dr. Lukas Hottinger, Naturhistorisches Museum Basel, Switzerland:

Marseille, La Pomme, Chaine de Regaiguas, France (88206a)

Jamaica (99303a): Maastrichtian

Haymana, Central-Anatolia (92530): Maastrichtian

13.2 Tables of the Genera

To keep the tables as short as possible, I have summarized some positions (Lithology + Facies), while other, which are not of utmost importance for this work were excluded (Citation, Formation, Station, Collection Déposée, Abundance), but can seen easily in the literature.

Spirocyclina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
~~Bonte 1942~~	~~Spirocyclina~~	~~sp.~~	~~%~~	~~42~~	~~Portlandian~~	~~RUS~~	~~EFP~~	~~%~~	~~Russie~~
~~Bonte 1942~~	~~Spirocyclina~~	~~sp.~~	~~%~~	~~39~~	~~Portlandian~~	~~PRT~~	~~EFP~~	~~%~~	~~Portugal~~
~~Dalbiez 1958~~	~~Spirocyclina~~	~~Infravalangiriensis~~	~~Schlumberger~~	~~31~~	~~Portlandian~~	~~FRA~~	~~EFP~~	~~%~~	~~western Aquitaine~~
Dilley 1973	Spirocyclina	sp.	Munier-Chalmas	%	Cenomanian-Santonian	%	EFP	%	southern Europe
Gendrot 1965	Spirocyclina	choffati	%	31	Santonian	FRA	EFP	5(3)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Spirocyclina	choffati	Munier-Chalmas	31	late Santonian	FRA	EFP	7(1-5)	Region des Martigues (Bouches-du-Rhone)
Loeblich & Tappan 1988	Spirocyclina	sp.	Munier-Chalmas	31	Santonian	FRA	EFP	%	France
Loeblich & Tappan 1988	Spirocyclina	choffati	Munier-Chalmas	31	Santonian	FRA	EFP	113(5-8)	Les Martigues, Marseille, France
Marie unpubl.	Spirocyclina	choffati	Munier-Chalmas	31	late Cretaceous	FRA	EFP	%	L'Étang de Berre
Marie unpubl.	Spirocyclina	choffati	Munier-Chalmas	31	late Cretaceous	FRA	EFP	%	Chemin de St. Pierre
Maync 1959	Spirocyclina	choffati	Munier-Chalmas	31	Senonian	FRA	EFP	1(1-10)	Les Martigues (Étang de Berre, Étang de Caronte), near Marseill
~~Schlumberger & Choffat 1904~~	~~Spirocyclina~~	~~choffati~~	~~Munier-Chalmas~~	~~39~~	~~Portlandian~~	~~PRT~~	~~EFP~~	~~%~~	~~Cap d'Espichel, Almadena, Zavia~~
~~Schlumberger & Choffat 1904~~	~~Spirocyclina~~	~~choffati~~	~~Munier-Chalmas~~	~~39~~	~~Infravalangnian~~	~~PRT~~	~~EFP~~	~~%~~	~~near Luz Algarve~~
Schlumberger & Choffat 1904	Spirocyclina	choffati	Munier-Chalmas	31	Senonian	FRA	EFP	%	L'Étang de Berre
~~Schlumberger & Choffat 1904~~	~~Spirocyclina~~	~~choffati~~	~~Munier-Chalmas~~	~~16~~	~~late Jurassic~~	~~DZA~~	~~AFP~~	~~%~~	~~Tiaret~~
~~Schlumberger & Choffat 1904~~	~~Spirocyclina~~	~~choffati~~	~~Munier-Chalmas~~	~~39~~	~~Infravalangnian~~	~~PRT~~	~~EFP~~	~~8(5-7)~~	~~Chameca~~
~~Schlumberger & Choffat 1904~~	~~Spirocyclina~~	~~choffati~~	~~Munier-Chalmas~~	~~39~~	~~Portlandian~~	~~PRT~~	~~EFP~~	~~8(8)~~	~~Cap d'Espichel~~
~~Schlumberger & Choffat 1904~~	~~Spirocyclina~~	~~choffati~~	~~Munier-Chalmas~~	~~39~~	~~Infravalangnian~~	~~PRT~~	~~EFP~~	~~8(9)~~	~~Sabugo~~
~~Schlumberger & Choffat 1904~~	~~Spirocyclina~~	~~choffati~~	~~Munier-Chalmas~~	~~39~~	~~Infravalangnian~~	~~PRT~~	~~EFP~~	~~pl.10~~	~~Fortin de Guincho~~

Loftusia

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
Abdelghany 2003	Loftusia	morgani	Douvillé	23	late Campanian-Maastrichtian	OMN	AFP	fig.10,1,2	northern Oman Mountains
Al-Omari & Sadek 1976	Loftusia	persica	Brady	27	Maastrichtian	IRQ	AFP	1(1,3)	Geli Zinta, Northern Iraq
Al-Omari & Sadek 1976	Loftusia	elongata	Cox	27	Maastrichtian	IRQ	AFP	1(2,4)	Geli Zinta, Northern Iraq
Al-Omari & Sadek 1976	Loftusia	elongata	Cox	27	Maastrichtian	IRQ	AFP	2(1)	Gebel Aqra, Northern Iraq
Al-Omari & Sadek 1976	Loftusia	persica	Brady	27	Maastrichtian	IRQ	AFP	2(2,4)	Geli Zinta, Northern Iraq
Al-Omari & Sadek 1976	Loftusia	persica	Brady	27	Maastrichtian	IRQ	AFP	2(3)	Gebel Aqra, Northern Iraq
Al-Omari & Sadek 1976	Loftusia	persica	Brady	27	Maastrichtian	IRQ	AFP	2(5)	Geli Zinta, Northern Iraq
~~Carpenter & Brady 1869~~	~~Loftusia~~	~~sp.~~	~~n. gen.~~	~~56~~	~~lower Tertiary~~	~~IRN~~	~~EFP~~	~~7?(1-5), 7?, 7?(1-5), 8?(1-4)~~	~~Kellapstun Pass, near Du Pulun, Bakhtiyari Mountains; Lat. 32°N, Long 50°30E~~
Cox 1937	Loftusia	persica	Brady	%	early Maastrichtian	%	%	%	%
Cox 1937	Loftusia	morgani	%	%	late Maastrichtian, Danian	%	%	%	%
Cox 1937	Loftusia	sp.	%	56	Maastrichtian	IRN	EFP	%	Kellapstun Pass, near do Pulan
Cox 1937	Loftusia	sp.	%	56	%	IRN	EFP	%	Bakhatiari Country
Cox 1937	Loftusia	sp.	%	23	%	OMN	AFP	%	Jabal al Abyadh, near Yanqul, in the Oman Peninsula
Cox 1937	Loftusia	morgani	Douvillé	56	%	IRN	EFP	%	Gavara, in the Province of Kirmanshah
Cox 1937	Loftusia	elongata	Cox	56	%	IRN	EFP	%	Gavara, in the Province of Kirmanshah
Cox 1937	Loftusia	persica	Brady	56	late Cretaceous	IRN	EFP	%	North-eastern slope of the Kuh-i-Sarab anticline, Bakhtiari Country
Cox 1937	Loftusia	elongata	%	56	%	IRN	EFP	%	southern slope of the Kuh-i-Sarab anticline, Bakhtiari Country
Cox 1937	Loftusia	minor	%	56	%	IRN	EFP	%	southern slope of the Kuh-i-Sarab anticline, Bakhtiari Country
Cox 1937	Loftusia	harrisoni	%	56	%	IRN	EFP	%	southern slope of the Kuh-i-Sarab anticline, Bakhtiari Country
Cox 1937	Loftusia	elongata	%	56	late Cretaceous	IRN	EFP	%	Kuh-i-Abbagh, Bakhtiari Country
Cox 1937	Loftusia	sp.	%	56	%	IRN	EFP	%	Ausuna Sar Gach, Khurrumabad in Luristan
Cox 1937	Loftusia	persica	Brady	56	%	IRN	EFP	33(1)	Bakhatiari Country
Cox 1937	Loftusia	elongata	n.sp.	56	%	IRN	EFP	33(2); 35(1,2); txt-fig.4	Bakhatiari Country
Cox 1937	Loftusia	morgani	Douvillé	56	%	IRN	EFP	33(3); 34(1,2)	Bakhatiari Country
Cox 1937	Loftusia	minor	n.sp.	56	%	IRN	EFP	33(5); 36(1-3)	Bakhatiari Country
Cox 1937	Loftusia	harrisoni	n.sp.	56	%	IRN	EFP	33(4); 36(4-6)	Bakhatiari Country
~~Dawson 1879~~	~~Loftusia~~	~~columbiana~~	~~n. sp.~~	~~77~~	~~Carbon~~	~~CAN~~	~~%~~	~~6(1-7)~~	~~Marble Canon, British Columbia~~
Dilley 1973	Loftusia	sp.	Brady	%	Maastrichtian	%	EFP	%	southern Europe
Douvillé 1904	Loftusia	persica	%	56	early Maastrichtian	IRN	EFP	%	Baktyaris
~~Douvillé 1904~~	~~Loftusia~~	~~morgani~~	~~%~~	~~56~~	~~middle Lutetian~~	~~IRN~~	~~EFP~~	~~%~~	~~Louristan~~
Douvillé 1904	Loftusia	persica	%	56	early Maastrichtian	IRN	EFP	%	Louristan, 40 km à l'ouest du Kouh Mapeul, 60 km au sud-est de Kirmanchan
Douvillé 1904	Loftusia	morgani	%	56	late Maastichtian	IRN	EFP	%	Louristan, 40 km à l'ouest du Kouh Mapeul, 60 km au sud-est de Kirmanchan
Fleury et al. 1985	Loftusia	sp.	%	37	Maastrichtian	YUG	EFP	%	Yougoslavie
Fleury et al. 1985	Loftusia	sp.	%	36	Maastrichtian	GRC	EFP	%	Greece
Fleury et al. 1985	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	Turkey
Fleury et al. 1985	Loftusia	sp.	%	28	Maastrichtian	SYR	AFP	%	Syria
Fleury et al. 1985	Loftusia	sp.	%	27	Maastrichtian	IRQ	AFP	%	Iraq
Fleury et al. 1985	Loftusia	sp.	%	56	Maastrichtian	IRN	EFP	%	Iran
Fleury et al. 1985	Loftusia	sp.	%	25	Maastrichtian	YEM	AFP	%	Yemen
Fleury et al. 1985	Loftusia	sp.	%	24	Maastrichtian	QAT	AFP	%	Qatar
Fleury et al. 1985	Loftusia	sp.	%	26	Maastrichtian	SOM	AFP	%	Somalia
Fleury et al. 1985	Loftusia	sp.	%	22	Maastrichtian	SAU	AFP	%	Saudi-Arabia
Fleury et al. 1990	Loftusia	sp.	%	36	Maastrichtian	GRC	EFP	Pl., fig.a-e	Les Monts Valtou (= „massif du Gavrovo") Gavrovo-Tripolitza
Fleury et al. 1990	Loftusia	sp.	%	35	%	ITA	EFP	%	Italie méridionale: les monts Lépini
Fleury et al. 1990	Loftusia	sp.	%	37	%	YUG	EFP	%	Yougoslavie septentionale
Fleury et al. 1990	Loftusia	sp.	%	38	%	TUR	EFP	%	Turquie centrale
Fleury et al. 1990	Loftusia	sp.	%	37	%	YUG	EFP	%	Serbie occidentale
Fleury et al. 1990	Loftusia	sp.	%	36	%	GRC	EFP	%	Grèce orientale
Fleury et al. 1990	Loftusia	sp.	%	38	%	TUR	EFP	%	Taurus oriental
Fleury et al. 1990	Loftusia	sp.	%	28	%	SYR	AFP	%	Syrie
Fleury et al. 1990	Loftusia	sp.	%	27	%	IRQ	AFP	%	Irak
Fleury et al. 1990	Loftusia	sp.	%	56	%	IRN	EFP	%	Iran. Chaîne du Zagros
Fleury et al. 1990	Loftusia	sp.	%	24	%	QAT	AFP	%	Qatar
Fleury et al. 1990	Loftusia	sp.	%	25	%	YEM	AFP	%	Yémen
Fleury et al. 1990	Loftusia	sp.	%	26	%	SOM	AFP	%	Somalie
Fleury et al. 1990	Loftusia	sp.	%	23	%	OMN	AFP	%	Oman
Inan 1996a	Loftusia	minor	%	38	Maastrichtian	TUR	EFP	%	Koyulhisar-Sivas
Kalantari 1976	Loftusia	cf. harrisoni	%	56	Maastrichtian	IRN	EFP	26(1)	Sarvestan area, SW Iran
Kalantari 1976	Loftusia	coxi	%	56	Maastrichtian	IRN	EFP	26(3,4)	Sarvestan area, SW Iran
Kalantari 1976	Loftusia	minor	Cox	56	Maastrichtian	IRN	EFP	27(16)	Sarvestan area, SW Iran
Kalantari 1976	Loftusia	cf. harrisoni	Cox	56	Maastrichtian	IRN	EFP	27(17)	Sarvestan area, SW Iran
Kalantari 1976	Loftusia	coxi	Henson	56	Maastrichtian	IRN	EFP	27(18)	Sarvestan area, SW Iran
Loeblich & Tappan 1988	Loftusia	sp.	Brady	56	Maastrichtian	IRN	EFP	%	Iran
Loeblich & Tappan 1988	Loftusia	sp.	Brady	38	Maastrichtian	TUR	EFP	%	Turkey
~~Loeblich & Tappan 1988~~	~~Loftusia~~	~~sp.~~	~~Brady~~	~~47~~	~~Maastrichtian~~	~~IDN~~	~~ASP~~	~~%~~	~~Sumatra~~
Loeblich & Tappan 1988	Loftusia	persica	Brady	56	Maastrichtian	IRN	EFP	116(8-10)	Iran
Meric & Görmüs 2001	Loftusia	sp.	%	56	%	IRN	EFP	%	Iran
Meric & Görmüs 2001	Loftusia	sp.	%	27	%	IRQ	AFP	%	Iraq

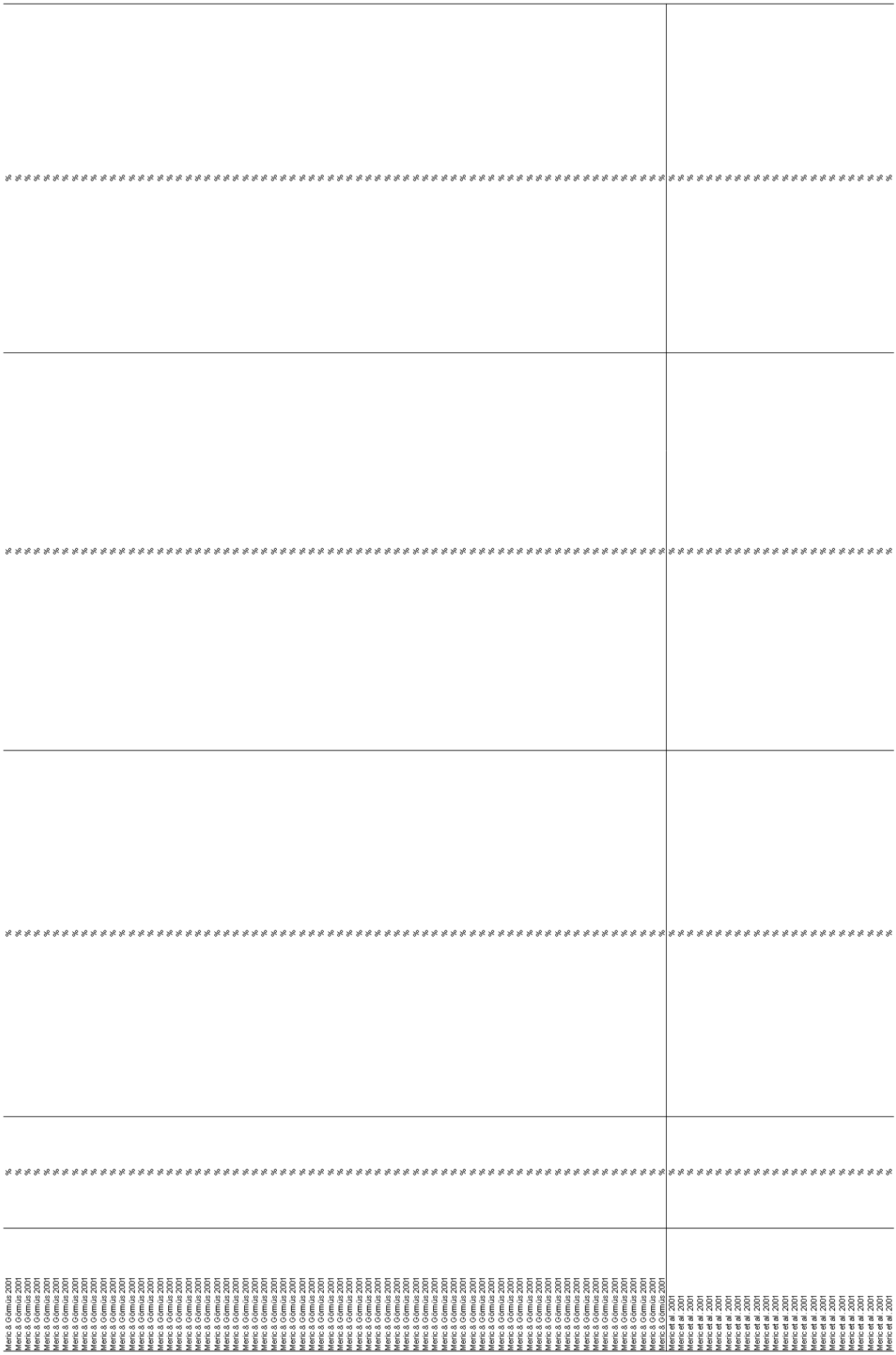
Spirocyclina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
~~Bonte 1942~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Bonte 1942~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Dalbiez 1958~~	~~%~~	~~%~~	~~%~~	~~%~~
Dilley 1973	Table II	%	%	%
Gendrot 1965	Fig.1	%	Calcaire organogène	%
Gendrot 1965	Fig.1	%	%	%
Loeblich & Tappan 1988	Page109	%	%	%
Loeblich & Tappan 1988	Page 29	%	%	%
Marie unpubl.	%	%	%	%
Marie unpubl.	%	%	%	%
Maync 1959	Page 38	%	%	%
~~Schlumberger & Choffat 1904~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Schlumberger & Choffat 1904~~	~~%~~	~~%~~	~~%~~	~~%~~
Schlumberger & Choffat 1904	%	%	%	%
~~Schlumberger & Choffat 1904~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Schlumberger & Choffat 1904~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Schlumberger & Choffat 1904~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Schlumberger & Choffat 1904~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Schlumberger & Choffat 1904~~	~~%~~	~~%~~	~~%~~	~~%~~

Loftusia

Publication	Loc-Descr	Association	Lithology and Facies	Remarks
Abdelghany 2003	Fig. 1	Orbitoides, Omphalocyclus, Lepidorbitoides	limestone, pink limestone	%
Al-Omari & Sadek 1976	Fig. 1	%	limestone	%
Al-Omari & Sadek 1976	Fig. 1	%	limestone	%
Al-Omari & Sadek 1976	Fig. 1	%	limestone	%
Al-Omari & Sadek 1976	Fig. 1	%	limestone	%
Al-Omari & Sadek 1976	Fig. 1	%	limestone	%
Al-Omari & Sadek 1976	Fig. 1	%	limestone	%
~~Carpenter & Brady 1869~~	~~%~~	~~%~~	~~hard, compact Limestone, soft calcareous mud, 90-100 fathoms~~	~~%~~
Cox 1937	%	%	%	%
Cox 1937	%	%	%	%
Cox 1937	%	%	%	%
Cox 1937	%	%	%	%
Cox 1937	%	%	%	%
Cox 1937	%	Omphalocyclus, Orbitoides	%	Core depth: 800 ft – 2230 ft
Cox 1937	%	Omphalocyclus, Orbitoides	%	Core depth: 2690 ft – 3040 ft
Cox 1937	%	%	%	%
Cox 1937	%	%	%	Core depth: 400 ft
Cox 1937	%	%	%	Core depth: 550 ft
Cox 1937	%	%	%	Core depth: 550 ft
Cox 1937	%	%	%	darunter: L. persica, L. elongata
Cox 1937	%	%	%	%
Cox 1937	%	%	%	Syn.: Alveolina sp.
Cox 1937	%	%	%	Syn.: Loftusia persica (pars)
Cox 1937	%	%	%	Syn.: Alveolina morgani
Cox 1937	%	%	%	%
Cox 1937	%	%	%	%
~~Dawson 1879~~	~~%~~	~~%~~	~~%~~	~~%~~
Dilley 1973	Table 2	%	%	%
Douvillé 1904	%	%	%	%
~~Douvillé 1904~~	~~%~~	~~%~~	~~%~~	~~%~~
Douvillé 1904	%	%	%	%
Douvillé 1904	%	Omphalocyclus	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Inan 1996a	Fig. 1	%	clayey limestone	
Kalantari 1976	Fig. 1	Omphalocyclus macroporus	fossiliferous limestone	Loftusia minor and harrisoni zone
Kalantari 1976	Fig. 1	%	crystalline limestone	Loftusia minor and harrisoni zone
Kalantari 1976	Fig. 1	%	%	Loftusia minor and harrisoni zone
Kalantari 1976	Fig. 1	%	%	Loftusia minor and harrisoni zone
Kalantari 1976	Fig. 1	%	%	Loftusia minor and harrisoni zone
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
Loeblich & Tappan 1988	%	%	%	%
Meric & Görmüs 2001	%	%	%	%
Meric & Görmüs 2001	%	%	%	%

Meric & Görmüs 2001	Loftusia	sp.	%	38		%	TUR	EFP	%		Turkey
Meric & Görmüs 2001	Loftusia	sp.	%	28		%	SYR	AFP	%		Syria
Meric & Görmüs 2001	Loftusia	sp.	%	24		%	QAT	AFP	%		Qatar
Meric & Görmüs 2001	Loftusia	sp.	%	23		%	OMN	AFP	%		Oman
Meric & Görmüs 2001	Loftusia	sp.	%	22		%	SAU	AFP	%		Saudi Arabia
Meric & Görmüs 2001	Loftusia	sp.	%	36		%	GRC	EFP	%		Greece
Meric & Görmüs 2001	Loftusia	sp.	%	37		%	YUG	EFP	%		Yugoslavia
Meric & Görmüs 2001	Loftusia	sp.	%	35		%	ITA	EFP	%		Italy
Meric & Görmüs 2001	Loftusia	sp.	%	38		%	TUR	EFP	%		Van (Kürzot, Gevas); Bolu (Sirnak, Göynük); Tokat (Resadiye)
Meric & Görmüs 2001	Loftusia	sp.	%	38		%	TUR	EFP	%		Ankara (Haymana); Antalya (Elmali, Korkuteli, Samandag), Sivas (Gürün, Koyulhisar)
Meric & Görmüs 2001	Loftusia	sp.	%	38		%	TUR	EFP	%		Malatya (Hekimhan, Darende), Adiyaman (Kahta, Celikhan, Besni)
Meric & Görmüs 2001	Loftusia	sp.	%	38		%	TUR	EFP	%		K. Maras (Osmaniye, Pazarcik); Elazig area
Meric & Görmüs 2001	Loftusia	sp.	%	38		%	TUR	EFP	%		Siirt (Selmo, Malabadi, Batman, Sason, Kozluk); Nigde (Ulukisla)
Meric & Görmüs 2001	Loftusia	sp.	%	56		%	IRN	EFP	%		Kermanshah, Khurramabad, Bakhtiari, Shiraz, Darab, Sarvestan, Laristan
Meric & Görmüs 2001	Loftusia	sp.	%	27		%	IRQ	AFP	%		Iraq: Aqra Formation, upper Maastrichtian, northern part of Iraq
Meric & Görmüs 2001	Loftusia	sp.	%	28		%	SYR	AFP	%		Syria: Near Leyla in North East Syria
Meric & Görmüs 2001	Loftusia	sp.	%	24		%	QAT	AFP	%		Qatar: Dukhan
Meric & Görmüs 2001	Loftusia	sp.	%	23		%	OMN	AFP	%		Oman: Jabal-al-Abyadh and Jabal-al- Milah (Wadi Sharm) areas
Meric & Görmüs 2001	Loftusia	sp.	%	22		%	SAU	AFP	%		Saudi Arabia: Aruma Formation east of Riyadh; central Saudi Arabia
Meric & Görmüs 2001	Loftusia	sp.	%	36		%	GRC	EFP	%		Greece: southern Ionnina of Greece
Meric & Görmüs 2001	Loftusia	sp.	%	37		%	YUG	EFP	%		E Yugoslavia; Kravaricke Reke in Pozega Basin of Serbia
Meric & Görmüs 2001	Loftusia	sp.	%	37		%	YUG	EFP	%		Fruska Gora (near Sremska Mitrovica), Cucevo (near Loznica)
Meric & Görmüs 2001	Loftusia	sp.	%	60		%	MKD	EFP	%		Stip (eastern Macedonia)
Meric & Görmüs 2001	Loftusia	sp.	%	35		%	ITA	EFP	%		Italy: southeast of Rome
Meric & Görmüs 2001	Loftusia	anatolica	Meric	38	late Maastrichtian		TUR	EFP	1(1-4,6,7)		Eski Kahta-Adiyaman
Meric & Görmüs 2001	Loftusia	anatolica	Meric	38	late Maastrichtian		TUR	EFP	1(5)		Ankara, Turkey
Meric & Görmüs 2001	Loftusia	anatolica	Meric	36	late Maastrichtian		GRC	EFP	1(8)		southern Ioannina, Greece
Meric & Görmüs 2001	Loftusia	arabica	El-Asa'ad	22	early Maastrichtian		SAU	AFP	2(1-10)		central Saudi Arabia
Meric & Görmüs 2001	Loftusia	baykali	Meric	38	late Maastrichtian		TUR	EFP	3(1-7)		Çörtinek-Adiyaman
Meric & Görmüs 2001	Loftusia	coxi	Henson	24	middle Maastrichtian		QAT	AFP	3(8,9)		Qatar
Meric & Görmüs 2001	Loftusia	elongata	Cox	38	middle Maastrichtian		TUR	EFP	3(10,11)		Eski Kahta-Adiyaman
Meric & Görmüs 2001	Loftusia	elongata	Cox	56	middle Maastrichtian		IRN	EFP	3(12-14)		Kuh-i-Dalun, Bakhtiari County, Iran
Meric & Görmüs 2001	Loftusia	elongata	Cox	27	middle Maastrichtian		IRQ	AFP	3(15)		Gebel Aqra, northern Iraq
Meric & Görmüs 2001	Loftusia	elongata	Cox	38	middle Maastrichtian		TUR	EFP	4(1-7)		Eski Kahta-Adiyaman
Meric & Görmüs 2001	Loftusia	elongata	Cox	56	middle Maastrichtian		IRN	EFP	5(1,4)		Kuh-i-Dalun, Bakhtiari County, Iran
Meric & Görmüs 2001	Loftusia	elongata	Cox	38	middle Maastrichtian		TUR	EFP	5(2)		Eski Kahta-Adiyaman
Meric & Görmüs 2001	Loftusia	elongata	Cox	56	middle Maastrichtian		IRN	EFP	5(3,5)		West of Darab, Laristan, Iran
Meric & Görmüs 2001	Loftusia	elongata	Cox	56	middle Maastrichtian		IRN	EFP	6(1)		Iran
Meric & Görmüs 2001	Loftusia	elongata	Cox	27	middle Maastrichtian		IRQ	AFP	6(2,3)		Geli Zinta - northern Iraq
Meric & Görmüs 2001	Loftusia	harrisoni	Cox	56	middle Maastrichtian		IRN	EFP	7(1-4)		Kuh-i-Sarab, Bakhtiari County, Iran
Meric & Görmüs 2001	Loftusia	harrisoni	Cox	38	middle Maastrichtian		TUR	EFP	7(5-8,13)		Eski Kahta-Adiyaman
Meric & Görmüs 2001	Loftusia	harrisoni	Cox	38	middle Maastrichtian		TUR	EFP	7(9)		Selmo-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	harrisoni	Cox	38	middle Maastrichtian		TUR	EFP	7(10-13)		Malabadi-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	kahtaensis	Meric	38	late Maastrichtian		TUR	EFP	8(1,3,4)		Salik-Adiyaman, Turkey
Meric & Görmüs 2001	Loftusia	kahtaensis	Meric	38	late Maastrichtian		TUR	EFP	8(2)		Karadut-Adiyaman, Turkey
Meric & Görmüs 2001	Loftusia	ketini	Meric	38	middle Maastrichtian		TUR	EFP	8(5-9); 9(1-7)		Haymana-Ankara, Turkey
Meric & Görmüs 2001	Loftusia	matsumarui	Meric & Görmüs	38	middle Maastrichtian		TUR	EFP	9(8-13)		Eski Kahta-Adiyaman
Meric & Görmüs 2001	Loftusia	minor	Cox	56	middle Maastrichtian		IRN	EFP	10(1-4)		Kuh-i-Sarab, Bakhtiari County, Iran
Meric & Görmüs 2001	Loftusia	minor	Cox	56	middle Maastrichtian		IRN	EFP	10(5-8)		Shiraz Region, Iran
Meric & Görmüs 2001	Loftusia	minor	Cox	38	middle Maastrichtian		TUR	EFP	11(1-9)		Eski Kahta-Adiyaman
Meric & Görmüs 2001	Loftusia	morgani	Douvillé	56	late Maastrichtian		IRN	EFP	12(1,4-5)		North of Sar Qaleh, Qayad, Bakhtiari Country, Iran
Meric & Görmüs 2001	Loftusia	morgani	Douvillé	38	late Maastrichtian		TUR	EFP	12(2,3,8,9)		Çörtinek-Adiyaman
Meric & Görmüs 2001	Loftusia	morgani	Douvillé	38	late Maastrichtian		TUR	EFP	12(6-7)		Salik-Adiyaman, Turkey
Meric & Görmüs 2001	Loftusia	occidentalis	Milovanovich	37	middle Maastrichtian		YUG	EFP	13(1-4)		Kravaricke Reke, Pozega Basin, Serbia, Yugoslavia
Meric & Görmüs 2001	Loftusia	oktayi	Meric	38	late Maastrichtian		TUR	EFP	13(5-7)		Salik-Adiyaman, Turkey
Meric & Görmüs 2001	Loftusia	oktayi	Meric	38	late Maastrichtian		TUR	EFP	13(8)		karadut-Adiyaman, Turkey
Meric & Görmüs 2001	Loftusia	persica	Brady	56	middle Maastrichtian		IRN	EFP	13(9)		Kuh-i-Abbagh, Bakhtiari Country, Iran
Meric & Görmüs 2001	Loftusia	persica	Brady	56	middle Maastrichtian		IRN	EFP	13(10)		NE Slope, Kuh-i-Sarab, Bakhtiari Country, Iran
Meric & Görmüs 2001	Loftusia	persica	Brady	27	middle Maastrichtian		IRQ	AFP	13(11)		Geli Zinta - northern Iraq
Meric & Görmüs 2001	Loftusia	persica	Brady	56	middle Maastrichtian		IRN	EFP	14(1-3)		Iran
Meric & Görmüs 2001	Loftusia	persica	Brady	27	middle Maastrichtian		IRQ	AFP	14(4-6)		Geli Zinta - northern Iraq
Meric & Görmüs 2001	Loftusia	turcica	Meric & Avsar	38	middle Maastrichtian		TUR	EFP	15(1-9)		Seyh Katil-Elazig, Turkey
Meric & Görmüs 2001	Loftusia	spp.	%	56		%	IRN	EFP	16(1)		Pernezam, Zagros
Meric & Görmüs 2001	Loftusia	harrisoni	Cox	38	middle Maastrichtian		TUR	EFP	16(2)		Selmo-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	elongata	Cox	38	middle Maastrichtian		TUR	EFP	17(1)		Selmo-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	minor	Cox	38	middle Maastrichtian		TUR	EFP	17(1)		Selmo-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	elongata	Cox	38	middle Maastrichtian		TUR	EFP	18(1)		Malabadi-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	harrisoni	Cox	38	middle Maastrichtian		TUR	EFP	18(1)		Malabadi-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	sp.	%	38		%	TUR	EFP	18(1)		Malabadi-Siirt, Turkey
Meric & Görmüs 2001	Loftusia	elongata	Cox	38	middle Maastrichtian		TUR	EFP	18(2)		Malabadi-Siirt, Turkey
Meric et al. 2001	Loftusia	sp.	%	%		%	*	%	%		Middle East
Meric et al. 2001	Loftusia	sp.	%	%		%	%	%	%		Balkan Peninsula and the central Apennines
Meric et al. 2001	Loftusia	sp.	%	%		%	%	%	%		%
Meric et al. 2001	Loftusia	sp.	%	35		%	ITA	EFP	%		Italy
Meric et al. 2001	Loftusia	sp.	%	37		%	YUG	EFP	%		Yugoslavia
Meric et al. 2001	Loftusia	sp.	%	60		%	MKD	EFP	%		Macedonia
Meric et al. 2001	Loftusia	sp.	%	62		%	HRV	EFP	%		Croatia
Meric et al. 2001	Loftusia	sp.	%	36		%	GRC	EFP	%		Greece
Meric et al. 2001	Loftusia	sp.	%	38		%	TUR	EFP	%		Turkey
Meric et al. 2001	Loftusia	sp.	%	27		%	IRQ	AFP	%		N Iraq
Meric et al. 2001	Loftusia	sp.	%	56		%	IRN	EFP	%		SW Iran-Zagros
Meric et al. 2001	Loftusia	sp.	%	28		%	SYR	AFP	%		SE Syria
Meric et al. 2001	Loftusia	sp.	%	24		%	QAT	AFP	%		Qatar
Meric et al. 2001	Loftusia	sp.	%	23		%	OMN	AFP	%		Oman-Arabia
Meric et al. 2001	Loftusia	anatolica	Meric	38	late Maastrichtian		TUR	EFP	3(25-27)		Eski Kahta-Adiyaman
Meric et al. 2001	Loftusia	arabica	El Asa'ad	22	early Maastrichtian		SAU	AFP	3(13-16)		Saudi Arabia
Meric et al. 2001	Loftusia	baykali	Meric	38	late Maastrichtian		TUR	EFP	4(30-35)		Çörtinek-Adiyaman
Meric et al. 2001	Loftusia	coxi	Henson	24	middle Maastrichtian		QAT	EFP	4(15-16)		Qatar
Meric et al. 2001	Loftusia	elongata	Cox	56	middle Maastrichtian		IRN	EFP	3(3,4)		Bakhtiari and Laristan, Iran
Meric et al. 2001	Loftusia	elongata	Cox	38	middle Maastrichtian		TUR	EFP	3(5-7)		Eski Kahta-Adiyaman
Meric et al. 2001	Loftusia	elongata	Cox	27	middle Maastrichtian		IRQ	AFP	3(8)		N Iraq
Meric et al. 2001	Loftusia	harrisoni	Cox	38	middle Maastrichtian		TUR	EFP	4(21-23,25)		Eski Kahta-Adiyaman, Malabadi-Siirt, Selmo-Siirt
Meric et al. 2001	Loftusia	harrisoni	Cox	56	middle Maastrichtian		IRN	EFP	4(24)		Bakhtiari and Laristan, Iran
Meric et al. 2001	Loftusia	kahtaensis	Meric	38	late Maastrichtian		TUR	EFP	4(1-4)		Salik-Adiyaman, Karadut-Adiyaman, Salik-Adiyaman


Meric & Gomus 2001
Meric et al. 2001

Meric et al. 2001	Loftusia	ketini	Meric	38	middle-late Maastrichtian	TUR	EFP	fig.4;5-10	Haymana; Yarpuz (Adana)
Meric et al. 2001	Loftusia	minor	Cox	56	middle Maastrichtian	IRN	EFP	3(17-19); 4(11,12)	Bakhtiari
Meric et al. 2001	Loftusia	minor	Cox	38	middle Maastrichtian	TUR	EFP	4(13,14)	Eski Kahta-Adiyaman
Meric et al. 2001	Loftusia	morgani	Douvillé	56	late Maastrichtian	IRN	AFP	3(20-21)	Bakhtiari-Iran
Meric et al. 2001	Loftusia	morgani	Douvillé	38	late Maastrichtian	TUR	EFP	3(22-24)	Salik-Adiyaman, Cörtinek-Adiyaman
Meric et al. 2001	Loftusia	occidentalis	Milovanovich	37	middle Maastrichtian	YUG	EFP	%	Belgrade
Meric et al. 2001	Loftusia	oktayi	Meric	38	late Maastrichtian	TUR	EFP	fig.4;26-29	Adiyaman, Siirt, Batman, Sirnak (SE Turkey); Yarpuz (Adana)
Meric et al. 2001	Loftusia	persica	Brady	56	middle Maastrichtian	IRN	EFP	3(1)	Bakhtiari-Iran
Meric et al. 2001	Loftusia	persica	Brady	27	middle Maastrichtian	IRQ	AFP	3(2)	N Iraq
Meric et al. 2001	Loftusia	turcica	Meric & Avsar	38	middle-late Maastrichtian	TUR	EFP	3(9-12); 4(17-20)	Elazig, Sivrice-Elazig
Meric et al. 1997	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	Serefikochisar (Central Anatolia)
Özcan 1993	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	fig. 4e	north-east Kahta region
Özcan 1993	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	north-east Kahta region
Özcan 1993	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	north-east Kahta region
Özcan & Özkan-Altiner 1997	Loftusia	sp.	%	38	late Maastrichtian	TUR	EFP	%	SW of Haymana
Sartorio & Venturini 1988	Loftusia	sp.	%	56	Maastrichtian	IRN	EFP	p. 124	Parnezam, Zagros
Sartorio & Venturini 1988	Loftusia	sp.	%	25	Maastrichtian	YEM	AFP	p. 124	Ras Sharweyn, P.D.R. of Yemen
Sirel 1996	Loftusia	elongata	%	38	Maastrichtian	TUR	EFP	%	Haymana basin, S of Ankara
Sirel 1996	Loftusia	elongata	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey
Sirel 1996	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey
Sirel 1996	Loftusia	elongata	%	38	Maastrichtian	TUR	EFP	%	Peyamli hill, 8 km north of Dündarli town, SW of Kayseri
Sirel 1996	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	Demircilik village, NW of Tecer mountains, S of Sivas, Central Turkey
Sirel 1996	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	Hekimhan town, NW of Malatya, Eastern Turkey
Sirel 1996	Loftusia	sp.	%	38	Maastrichtian	TUR	EFP	%	Bozandere place, Ilgaz mountains, N of Cankiri, Central Turkey
Sirel 1996	Loftusia	sp.	%	38	late Maastrichtian	TUR	EFP	%	Koyulhisar town, NE of Sivas, Central Turkey

Cuneolina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
~~Al Harithi 1986~~	~~Cuneolina~~	~~pavonia~~	~~Henson~~	~~75~~	~~Turonium~~	~~JOR~~	~~EFP~~	~~4(19)~~	~~N Jordanien; 32°26'38" N, 36°10'57" E~~
~~Al Harithi 1986~~	~~Cuneolina~~	~~pavonia~~	~~Henson~~	~~75~~	~~Turonium~~	~~JOR~~	~~EFP~~	~~13(14)~~	~~N Jordanien; 32°26'38" N, 36°10'57" E~~
Al-Omari & Sadek 1976	Cuneolina	cylindrica	Henson	27	Maastrichtian	IRQ	AFP	%	N Iraq
Azema et al. 1979	Cuneolina	sp.	%	32	Senonian	ESP	EFP	36(2)	Sierra del Escabezado (Prebetic)
Azema et al. 1979	Cuneolina	sp. ex. gr. C. pavonia	(d'Orbigny)	32	Senonian	ESP	EFP	37(1)	Sierra del Buey (Prebetic)
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	%	Les environs de Skotlje (au S de la faille de Divaca). Les mines de charbo
Bignot 1972	Cuneolina	gr. pavonia	%	37	Sénonien	YUG	EFP	%	Coupe du Mont Vremscica; NE von Gorice
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	%	Coupe du Dutovlje; N von Kreplje
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	%	Coupe d'Opicina; NW von Opicina
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	%	Coupe de Vrabce; N von Grize
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	%	Coupe du Mont Trestij; SW von Gora
Bignot 1972	Cuneolina	cf. laurentii	Sart. & Cresc.	37	%	YUG	EFP	%	Le Nanos; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	%	Coupe de Materija
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	%	Coupe de Podgrac
~~Bignot 1972~~	~~Cuneolina~~	~~gr. pavonia~~	~~%~~	~~37~~	~~Cénomanien~~	~~YUG~~	~~EFP~~	~~%~~	~~Coupe de Kasle~~
~~Bignot 1972~~	~~Cuneolina~~	~~gr. pavonia~~	~~%~~	~~37~~	~~Cénomanien~~	~~YUG~~	~~EFP~~	~~%~~	~~Coupe de Merisce~~
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	15(1)	entre Dutovlje et Kreplje
Bignot 1972	Cuneolina	pavonia parva	Henson	37	Sénonien	YUG	EFP	16(9)	entre Dutovlje et Kreplje
Bignot 1972	Cuneolina	sp.	%	37	Sénonien	YUG	EFP	16(10)	Mont Vremscica
Brönnimann 1954	Cuneolina	sp.	%	1	late Cretaceous	CUB	CFP	%	Cuba
Caus 1988	Cuneolina	sp.	%	32	Santonian	ESP	EFP	%	Pyrenean Basin
Caus & Cornella 1983	Cuneolina	cylindrica	%	32	Santonien; 82-78 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; sud-pyreneer
Caus & Cornella 1983	Cuneolina	pavonia	%	32	Santon, Campan, Maastricht; 82-<70 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; sud-pyreneen
~~Cry & Dupéner 1952~~	~~Cuneolina~~	~~pavonia~~	~~d'Orbigny~~	~~31~~	~~Cenomanian~~	~~FRA~~	~~EFP~~	~~%~~	~~Bidart-Cassville~~
~~Dalbiez 1958~~	~~Cuneolina~~	~~hensoni~~	~~Dalbiez~~	~~31~~	~~pre. Aptian Barremian and post Purbeckiar~~	~~FRA~~	~~EFP~~	~~1(1-5); 2(1-5)~~	~~western-Aquitaine~~
~~Dalbiez 1958~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~31~~	~~Turonian~~	~~FRA~~	~~EFP~~	~~2(6)~~	~~St. Cyprien, Dordogne~~
~~de Castro 1965~~	~~Cuneolina~~	~~pavonia parva~~	~~%~~	~~35~~	~~middle late Cenomanian~~	~~ITA~~	~~EFP~~	~~15~~	~~Monte Calvi, presso Garzano, provincia di Caserta~~
~~de Castro 1965~~	~~Cuneolina~~	~~pavonia parva~~	~~%~~	~~35~~	~~late Cenomanian~~	~~ITA~~	~~EFP~~	~~18,19~~	~~Cocuzzo die Palombi, presso Sacco, provincia di Salern~~
de Castro 1990	Cuneolina	sp.	%	35	early Maastrichtian (or late Campanian);	ITA	EFP	pls.33,34	Cava a Nord di Vitigliano, Lecce
Dilley 1973	Cuneolina	sp.	d'Orbigny	%	Albian-Maastrichtian	%	CFP	%	N America, Central America
Dilley 1973	Cuneolina	sp.	d'Orbigny	%	Albian-Maastrichtian	%	EFP	%	S Europe
Dilley 1973	Cuneolina	sp.	d'Orbigny	%	Albian-Maastrichtian	%	AFP	%	N Africa, W Africa
Dilley 1973	Cuneolina	sp.	d'Orbigny	%	Albian-Maastrichtian	%	AFP	%	Middle East
~~Fleury et al. 1979~~	~~Cuneolina~~	~~gr. pavonia~~	~~d'Orbigny~~	~~35~~	~~Cénomanien early or middle~~	~~GRC~~	~~EFP~~	~~%~~	~~sur la côte Nord-Ouest de Proti, Peloponnes~~
Fleury & Godfriaux 1974	Cuneolina	sp.	%	36	Maastrichtien	GRC	EFP	%	près du ravin du Xirolaki Olympou, Peloponnes
~~Gendrot 1965~~	~~Cuneolina~~	~~conica~~	~~%~~	~~31~~	~~Santonian~~	~~FRA~~	~~EFP~~	~~5(2); 8(3)~~	~~Region des Martigues (Bouches-du-Rhone)~~
Gendrot 1965	Cuneolina	cylindrica	Henson	31	late Santonian	FRA	EFP	8(1)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Cuneolina	pavonia var. anguste	Cushman	31	Santonian	FRA	EFP	8(2)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Cuneolina	pavonia	Cushman	31	Santonian	FRA	EFP	8(4, 5)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Cuneolina	pavonia	Cushman	31	late Santonian	FRA	EFP	8(6)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Cuneolina	sp.	%	31	%	FRA	EFP	8(20)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Cuneolina	sp.	%	31	late Santonian	FRA	EFP	22(4)	Chemin de Saint-Pierre
Gendrot 1968	Cuneolina	sp.	%	31	Santonian	FRA	EFP	2(2); 3(1)	Étang de Berre
Gendrot 1968	Cuneolina	cylindrica	Henson	31	late Santonian	FRA	EFP	4(14)	Étang de Berre
Gendrot 1968	Cuneolina	pavonia var. anguste	Cushman	31	Santonian	FRA	EFP	4(15)	Étang de Berre
~~Gendrot 1968~~	~~Cuneolina~~	~~conica~~	~~d'Orbigny~~	~~31~~	~~Santonian~~	~~FRA~~	~~EFP~~	~~4(16)~~	~~Étang de Berre~~
Gendrot 1968	Cuneolina	pavonia	d'Orbigny	31	Santonian	FRA	EFP	4(17-19)	Étang de Berre
Gendrot 1968	Cuneolina	sp.	%	31	%	FRA	EFP	4(20)	Étang de Berre
Gischler et al. 1994	Cuneolina	sp.	%	32	late Santonian-early Campanian	ESP	EFP	40(1)	Basco-Cantrabrian and Iberian basins, N Spain
Gischler et al. 1994	Cuneolina	sp.	%		late Santonian-early Campanian	ESP	EFP	40(3)	Basco-Cantrabrian and Iberian basins, N Spain
Gusic & Jelaska 1990	Cuneolina	gr. pavonia	%	37	Campanian	YUG	EFP	13(3)	Island of Brac
~~Gusic et al. 1988~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~37~~	~~Cenomanian~~	~~YUG~~	~~EFP~~	~~%~~	~~Island of Brac~~
Gusic et al. 1988	Cuneolina	pavonia	%	37	early Senonian	YUG	EFP	%	Island of Brac
Gusic et al. 1988	Cuneolina	pavonia	%	37	Campanian	YUG	EFP	%	Island of Brac
Gusic et al. 1988	Cuneolina	sp.	%	37	Maastrichtian	YUG	EFP	2(11)	Island of Brac
~~Hagn 1981~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~33~~	~~Oberbarrême~~	~~DEU~~	~~EFP~~	~~1(6)~~	~~S Bayer Säg a.d. Straße Gmund Bad Wiessee, ca. 2 km SW Gmund, NW Tegernsee~~
Hofker 1967	Cuneolina	pavonia	d'Orbigny	32	late Santonian	ESP	EFP	%	Palleresa River, Sierra de Montsech, Lérida
~~Hottinger 1966~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~32~~	~~Cenomanian-Turonian?~~	~~ESP~~	~~EFP~~	~~%~~	~~Sierra del Montsec~~
~~Hottinger 1966~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~32~~	~~Cenomanian-Turonian?~~	~~ESP~~	~~EFP~~	~~%~~	~~Sierra del Montsec~~
Inan 1996a	Cuneolina	ketini	%	38	Maastrichtian	TUR	EFP	%	Koyulhisar-Sivas
Inan 1996b	Cuneolina	ketini	Inan	38	late Maastrichtian	TUR	EFP	%	Gölköy area
Inan 1996b	Cuneolina	ketini	Inan	38	late Maastrichtian	TUR	EFP	%	between Koyulhisar and Resadiye

Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 2001	%	%	%	%
Meric et al. 1997	%	%	%	%
Özcan 1993	%	Orbitoides, Siderolites, Omphalocyclus	friable rudistid sandy facies	%
Özcan 1993	%	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Lepidorbitoides	sandy bioclastic carbonates	%
Özcan 1993	%	Orbitoides, Siderolites	marls and siltstones	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Siderolites, Sirtina, Hellenocyclina	friable limy sandstone and sandy limestone; shallow water	%
Sartorio & Venturini 1988	%	%	%	%
Sartorio & Venturini 1988	%	%	%	%
Sirel 1996	Fig. 1	Laffitteina, Siderolites, Hellenocyclina, Orbitoides, Sirtina	Sandstone, sandy limestone, argillaceous limestone	%
Sirel 1996	Fig. 1	Omphalocyclus, Siderolites, Hellenocyclina, Orbitoides, Laffitteina	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	Fig. 1	Omphalocyclus, Siderolites, Hellenocyclina, Orbitoides, Laffitteina	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	Fig. 1	Laffitteinia, Siderolites, Hellenocyclina, Orbitoides, Omphalocyclus	limestone; shallow water	%
Sirel 1996	Fig. 1	Laffitteina, Omphalocyclus	limestone; shallow water	%
Sirel 1996	Fig. 1	Laffitteina	limestone; shallow water	%
Sirel 1996	Fig. 1	Laffitteina	limestone; shallow water	%
Sirel 1996	Fig. 1	Laffitteina	limestone; shallow water	%

Cuneolina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
~~Al Harithi 1986~~	~~%~~	~~%~~	~~208-215m: Hornstein + Kalk; 215-220m: Kalk, mergelig; 220-233m: Mergel~~	~~209-225 m~~
~~Al Harithi 1986~~	~~%~~	~~%~~	~~208-215m: Hornstein + Kalk; 215-220m: Kalk, mergelig; 220-233m: Mergel~~	~~209-225 m~~
Al-Omari & Sadek 1976	Fig. 1	%	%	%
Azema et al. 1979	%	%	Intrabiosparite (grainstone); Carbonate platform facies	%
Azema et al. 1979	%	Lacazina	Intrabiosparitic limestone (grainstone); carbonate platform facies	%
Bignot 1972	Fig. 6,8,10	%	calcaires à Rudistes	%
Bignot 1972	Fig. 6	Rhapydionina	Calcaires gris sombre ou noirs	%
Bignot 1972	Fig. 17	Rhapydionina, Rhipidionina, Raadshoovenia	Calcaires sombres à Rudistes	%
Bignot 1972	Fig. 24	Raadshoovenia	Calcaire brun	%
Bignot 1972	Fig. 35	%	Calcaires gris sombre ou noirs	%
Bignot 1972	Fig. 39	%	Calcaires gris ou noirs	%
Bignot 1972	Fig. 48,49	%	calcaires gris à intercalations dolomitiques	%
Bignot 1972	Fig. 106	%	Calcaire brun à Rudistes	%
Bignot 1972	Fig. 109	%	Calcaire brun ou gris à Rudistes	%
~~Bignot 1972~~	~~Fig. 148~~	~~%~~	~~Calcaires gris ou rose clair~~	~~%~~
~~Bignot 1972~~	~~Fig. 150~~	~~%~~	~~Calcaires blancs~~	~~%~~
Bignot 1972	Fig. 17	Raadshoovenia	%	%
Bignot 1972	Fig. 17	%	%	%
Bignot 1972	Fig. 6	%	%	%
Brönnimann 1954	%	Vaughanina, Sulcoperculina, Omphalocyclus	%	aufgearbeitetes Material!
Caus 1988	%	%	carbonate platform, 40-60 m	%
Caus & Cornella 1983	%	Dictyopsella, Meandropsina, Siderolites, Orbitoides, Omphalocyclu	%	%
Caus & Cornella 1983	%	Dictyopsella, Meandropsina, Siderolites, Orbitoides, Omphalocyclus	%	%
~~Cey & Dupéier 1962~~	~~%~~	~~%~~	~~%~~	
~~Dalbiez 1958~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Dalbiez 1958~~	~~%~~	~~%~~	~~%~~	~~%~~
~~de Castro 1965~~	~~Fig. 1~~	~~Rhapydionina dubia~~	~~%~~	~~%~~
~~de Castro 1965~~	~~Fig. 1~~	~~Rhapydionina laurinensis~~	~~%~~	~~%~~
de Castro 1990	Page 14	Raadshoovenia, Orbitoides	white limestone with micrite and some sparite, grain-supported (packstone-grainstone;	%
Dilley 1973	Table 2	%	%	%
Dilley 1973	Table 2	%	%	%
Dilley 1973	Table 2	%	%	%
Dilley 1973	Table 2	%	%	%
~~Fleury et al. 1979~~	~~Saint Mars 1974~~	~~%~~	~~%~~	~~%~~
Fleury & Godfriaux 1974	Page 151	Rhapydionina	calcaire gris, bleu ou blanc et de dolomie saccharoide bleu-clair à linéoles blanches	%
~~Gendrot 1965~~	~~Fig. 1~~	~~%~~	~~Calcaire argileux organogène à fins cristaux de calcite~~	~~%~~
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1968	Fig. 1,2	%	Calcaire micritique	%
Gendrot 1968	Fig. 1,2	%	%	%
Gendrot 1968	Fig. 1,2	%	%	%
~~Gendrot 1968~~	~~Fig. 1,2~~	~~%~~	~~%~~	~~%~~
Gendrot 1968	Fig. 1,2	%	%	%
Gendrot 1968	Fig. 1,2	%	%	%
Gischler et al. 1994	Fig. 1	%	grainstone; shallow marine carbonate ramp	
Gischler et al. 1994	Fig. 1	%	grainstone; shallow marine carbonate ramp	
Gusic & Jelaska 1990	%	%	grainstone	keine genaue Lokalität
~~Gusic et al. 1988~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
Gusic et al. 1988	Fig. 1	Nummofallotia	%	%
Gusic et al. 1988	Fig. 1	%	wackestone; back-reef ("lagoon")	%
Gusic et al. 1988	Fig. 1	Rhapydionina	skeletal wackestone; restricted platform, shallow subtidal, probably with fresh-water (brackish) influence	%
~~Haqn 1981~~	~~Page 177~~	~~%~~	~~Fossilschuttkalke, z.T. als Oobiosparit~~	~~%~~
Hofker 1967	Txt-Fig. 1	%	%	%
~~Hottinger 1966~~	~~Fig. 2~~	~~%~~	~~calcaires détritiques et des microbrèches~~	~~%~~
~~Hottinger 1966~~	~~Fig. 2~~	~~%~~	~~%~~	~~%~~
Inan 1996a	Fig. 1	%	Limestone; Lagoon - Tida	
Inan 1996b	Fig. 1	Orbitoides, Laffitteina	%	%
Inan 1996b	Fig. 1	Omphalocyclus, Laffitteina, Loftusia	%	

~~Kalantari 1976~~	~~Cuneolina~~	~~cf. pavonia~~	~~%~~	~~56~~	~~Cenomanian~~	~~IRN~~	~~EFP~~	~~18~~	~~Sarvestan area, SW Iran~~
~~Kalantari 1976~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~56~~	~~Cenomanian~~	~~IRN~~	~~EFP~~	~~22(4)~~	~~Sarvestan area, SW Iran~~
~~Kalantari 1976~~	~~Cuneolina~~	~~cf. pavonia~~	~~d'Orbigny~~	~~56~~	~~Cenomanian~~	~~IRN~~	~~EFP~~	~~22(5)~~	~~Sarvestan area, SW Iran~~
Landrein et al. 2001	Cuneolina	sp.	%	36	late Campanian-Maastrichtian	GRC	EFP	6(c)	Greece
~~Loeblich & Tappan 1988~~	~~Cuneolina~~	~~sp.~~	~~d'Orbigny~~	~~%~~	~~Valanginian-Coniacian~~	~~CHN~~	~~ASP~~	~~%~~	~~China~~
~~Loeblich & Tappan 1988~~	~~Cuneolina~~	~~sp.~~	~~d'Orbigny~~	~~%~~	~~Valanginian-Coniacian~~	~~USA~~	~~CFP~~	~~%~~	~~USA~~
~~Loeblich & Tappan 1988~~	~~Cuneolina~~	~~sp.~~	~~d'Orbigny~~	~~%~~	~~Valanginian-Coniacian~~	~~Europe~~	~~EFP~~	~~%~~	~~Europe~~
~~Loeblich & Tappan 1988~~	~~Cuneolina~~	~~pavonia~~	~~d'Orbigny~~	~~31~~	~~Cenomanian~~	~~FRA~~	~~EFP~~	~~155(1-3)~~	~~Île Madam, Dept. Charente Maritime, France~~
~~Luperto Sinni 1966~~	~~Cuneolina~~	~~laurentii~~	~~Sartoni & Crescenti~~	~~35~~	~~Aptian~~	~~ITA~~	~~EFP~~	~~3(3)~~	~~N "Casina S. Francesco"~~
~~Luperto Sinni 1966~~	~~Cuneolina~~	~~laurentii~~	~~Sartoni & Crescenti~~	~~35~~	~~Albian?~~	~~ITA~~	~~EFP~~	~~3(4)~~	~~"Pianolli"~~
~~Luperto Sinni 1966~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~35~~	~~Albian~~	~~ITA~~	~~EFP~~	~~5(3)~~	~~"Palese"~~
~~Luperto Sinni 1966~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~35~~	~~Albian~~	~~ITA~~	~~EFP~~	~~6(3)~~	~~"Rocchitellao"~~
~~Luperto Sinni 1966~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~35~~	~~early Cenomanian~~	~~ITA~~	~~EFP~~	~~7(3)~~	~~"Livello Sannicandro"~~
~~Luperto Sinni 1966~~	~~Cuneolina~~	~~pavonia parva~~	~~Henson~~	~~35~~	~~Cenomanian~~	~~ITA~~	~~EFP~~	~~9(1)~~	~~"Macchia di Chianca"~~
~~Luperto Sinni 1966~~	~~Cuneolina~~	~~pavonia parva~~	~~Henson~~	~~35~~	~~Cenomanian~~	~~ITA~~	~~EFP~~	~~9(2)~~	~~"La Difesa"~~
Luperto Sinni 1968	Cuneolina	sp.	%	35	Senonian	ITA	EFP	%	Murge
Luperto Sinni 1976	Cuneolina	sp.	%	35	Senonian	ITA	EFP	30(1-3,5,6)	Masseria S. Teresa, Murge
Luperto Sinni 1976	Cuneolina	sp.	%	35	Senonian	ITA	EFP	30(4)	Masseria della Crocetta, Murge
Luperto Sinni & Ricchetti 1978	Cuneolina	sp.	%	35	Santonian-Maastrichtian	ITA	EFP	46(1-11)	Specchia Tarantina
Meric & Coruh 1991	Cuneolina	sp.	%	38	middle-late Maastrichtian	TUR	EFP	%	NW Siirt, SE Anatolia
~~Moreau et al. 1978~~	~~Cuneolina~~	~~gr. conica-pavonia~~	~~%~~	~~31~~	~~middle-late Cenomanian~~	~~FRA~~	~~EFP~~	~~%~~	~~Charente Maritime~~
~~Moreau et al. 1978~~	~~Cuneolina~~	~~fleuriausia~~	~~%~~	~~31~~	~~middle Cenomanian~~	~~FRA~~	~~EFP~~	~~%~~	~~Charente Maritime~~
~~Mouty et al. 2003~~	~~Cuneolina~~	~~laurentii~~	~~Sartoni & Crescenti~~	~~28~~	~~Albian-early Cenomaniar~~	~~SYR~~	~~AFP~~	~~%~~	~~Palmyrides~~
~~Mouty et al. 2003~~	~~Cuneolina~~	~~pavonia~~	~~d'Orbigny~~	~~28~~	~~Albian-early Cenomaniar~~	~~SYR~~	~~AFP~~	~~%~~	~~Palmyrides~~
~~Mouty et al. 2003~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~28~~	~~Cenomanian~~	~~SYR~~	~~AFP~~	~~%~~	~~Palmyrides~~
~~Mouty et al. 2003~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~28~~	~~late Cenomanian~~	~~SYR~~	~~AFP~~	~~%~~	~~Palmyrides~~
~~Mouty et al. 2003~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~28~~	~~Turonian~~	~~SYR~~	~~AFP~~	~~%~~	~~Palmyrides~~
Premoli Silva & Brusa 1981	Cuneolina	sp.	%	49	Campanian	KIR	CFP	%	Hole 315A, Line Islands
~~Premoli Silva & Brusa 1981~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~67~~	~~Cenomanian-mid-Aptian~~	~~USA~~	~~CFP~~	~~%~~	~~Site 171 (off Hawaii) and Isakov Guyot~~
Richter & Mariolakos 1976	Cuneolina	pavonia parva	Henson	36	Turon-Maastricht	GRC	EFP	%	Westflanke Skolis-Massiv, Peloponnes, Griechenlanc
Richter & Mariolakos 1976	Cuneolina	pavonia parva	Henson	36	Oberkreide	GRC	EFP	%	Westflanke Skolis-Massiv, Peloponnes, Griechenlanc
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~%~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~%~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~1(8)~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~%~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
Rosales Dominguez et al. 1994	Cuneolina	sp.	%	3	%	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Cuneolina	sp.	%	3	%	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Cuneolina	sp.	%	3	%	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Cuneolina	sp.	%	3	%	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~%~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~%~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~%~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
~~Rosales Dominguez et al. 1994~~	~~Cuneolina~~	~~pavonia~~	~~%~~	~~3~~	~~Cenomaniano sup.-Turoniano inf.~~	~~MEX~~	~~CFP~~	~~%~~	~~Río Suchiapa, SE de Tuxtla Gutiérrez~~
Rosales Dominguez et al. 1994	Cuneolina	pavonia	%	3	%	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Cuneolina	pavonia	%	3	%	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Cuneolina	pavonia	%	3	%	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Cuneolina	sp.	%	3	%	MEX	CFP	2(3)	Río Suchiapa, SE de Tuxtla Gutiérrez
~~Saint Marc 1973~~	~~Cuneolina~~	~~pavonia parva~~	~~Henson~~	~~54~~	~~Albian-Cenomanian~~	~~LEB~~	~~AFP~~	~~%~~	~~Liban~~
Sari & Özer 2002	Cuneolina	sp.	%	38	Santonian-Campanian	TUR	EFP	%	Yörükalan locality and Korkuteli-Fethiye road cut, 1.5 km W Kargaliköy
~~Sari & Özer 2002~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~38~~	~~Cenomanian~~	~~TUR~~	~~EFP~~	~~%~~	~~Korkuteli Area (Western Taurides)~~
~~Sartorio & Venturini 1988~~	~~Cuneolina~~	~~pavonia~~	~~d'Orbigny~~	~~35~~	~~Cenomanian~~	~~ITA~~	~~EFP~~	~~p. 112~~	~~Caserta, Campania~~
Sartorio & Venturini 1988	Cuneolina	pavonia	d'Orbigny	35	early Senonian	ITA	EFP	p. 113	Cicerale 1 dir. well, Campania
~~Schlumberger 1899~~	~~Cuneolina~~	~~conica~~	~~d'Orbigny~~	~~31~~	~~Senonian~~	~~FRA~~	~~EFP~~	~~8(8-10)~~	~~Ile Madame~~
~~Schlumberger 1899~~	~~Cuneolina~~	~~conica~~	~~d'Orbigny~~	~~32~~	~~Santorian~~	~~ESP~~	~~EFP~~	~~%~~	~~Trago di Noguera~~
~~Sun & Zhang 1983~~	~~Cuneolina~~	~~pavonia~~	~~Henson, Ansary & Tewfik~~	~~73~~	~~Cenomanian~~	~~CHN~~	~~ASP~~	~~%~~	~~Karakorum-Lhasa belt~~
~~Zambetakis-Lekkas 1988~~	~~Cuneolina~~	~~sp.~~	~~%~~	~~36~~	~~early Aptian~~	~~GRC~~	~~EFP~~	~~%~~	~~Coupe de Chrissovitsi~~
Zambetakis-Lekkas 1988	Cuneolina	sp.	%	36	late Santonian	GRC	EFP	%	Coupe de Chrissovitsi
Zambetakis-Lekkas 1988	Cuneolina	sp.	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Chrissovitsi
Zambetakis-Lekkas 1988	Cuneolina	sp.	%	36	early Campanian	GRC	EFP	%	Coupe de Myticas-Angelokastro
Zambetakis-Lekkas 1988	Cuneolina	sp.	%	36	late Campanian	GRC	EFP	%	Coupe de Myticas-Angelokastro
Zambetakis-Lekkas 1988	Cuneolina	sp.	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Myticas-Angelokastro
Zambetakis-Lekkas 1988	Cuneolina	sp.	%	36	late Campanian-early Maastrichtian	GRC	EFP	%	Coupe de Kamenitsa
Zambetakis-Lekkas 1988	Cuneolina	sp.	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Kamenitsa

Dictyopsella

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
Barrier & Neumann 1959	Dictyopsella	sp.	%	31	Santonian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Dictyopsella	sp.	%	31	Campanian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Dictyopsella	sp.	%	31	Maastrichtian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Bignot & Neumann 1997	Dictyopsella	tenuissima	Reuss	30	Campanian	BEL	EFP	%	Folx-les-Caves, à l'est de Bruxelles
Bonte 1942	Dictyopsella	sp.	%	32	Santonian	ESP	EFP	%	Spain
Bonte 1942	Dictyopsella	sp.	%	39	Santonian	POR	EFP	%	Portugal
Caus 1988	Dictyopsella	sp.	%	32	Santonian, Campanian	ESP	EFP	%	Pyrenean Basin
~~Caus & Cornella 1983~~	~~Dictyopsella~~	~~cuvillieri~~	~~%~~	~~32~~	~~Santonien; 82-78 Ma~~	~~ESP~~	~~EFP~~	~~%~~	~~Sierra del Montsec, Sierras Marginales~~
Caus & Cornella 1983	Dictyopsella	kiliani	%	32	Santon, Campan, Maastricht; 82-<70 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales
Caus & Vicens 1984	Dictyopsella	sp.	%	32	late Santonian	ESP	EFP	%	La Trilla; Castell de Bac Grillera, Pirineos Catalanes
Caus & Vicens 1984	Dictyopsella	sp.	%	32	early Campanian	ESP	EFP	%	La Trilla; Castell de Bac Grillera, Pirineos Catalanes
Dilley 1973	Dictyopsella	sp.	Munier-Chalmas	%	Cenomanian-Santonian	%	%	%	Southern Europe, Middle East
Fleury et al. 1985	Dictyopsella	kiliani	Schlumberger	%	Santonian-early Campaniar	%	EFP	%	western Tethys
Gendrot 1965	Dictyopsella	kiliani	%	31	Santonian	FRA	EFP	5(4)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Dictyopsella	kiliani	%	31	Santonian	FRA	EFP	8(7-12)	Region des Martigues (Bouches-du-Rhone)
~~Gendrot 1965~~	~~Dictyopsella~~	~~cuvillieri~~	~~n.sp.~~	~~31~~	~~late Santonian~~	~~FRA~~	~~EFP~~	~~8(13-19)~~	~~Region des Martigues (Bouches-du-Rhone)~~
~~Gendrot 1965~~	~~Dictyopsella~~	~~kiliani~~	~~Schlumberger~~	~~31~~	~~Coniacian~~	~~FRA~~	~~EFP~~	~~11(3)~~	~~L'Étang de Berre~~
Gendrot 1965	Dictyopsella	kiliani	%	31	%	FRA	EFP	20(2)	L'Étang de Berre
Gendrot 1968	Dictyopsella	sp.	%	31	Santonian	FRA	EFP	3(1)	L'Ètang de Berre
Gendrot 1968	Dictyopsella	kiliani	Schlumberger	31	Santonian, Coniacian	FRA	EFP	5(1-5,12,13)	Région des Martiques (Bouches-du-Rhône)
~~Gendrot 1968~~	~~Dictyopsella~~	~~cuvillieri~~	~~n.sp.~~	~~31~~	~~late Santonian~~	~~FRA~~	~~EFP~~	~~5(6-11)~~	~~Région des Martiques (Bouches-du-Rhône)~~
Gusic & Jelaska 1990	Dictyopsella	sp.	%	62	Campanian	HRV	EFP	13(2)	Island of Brac
Gusic & Jelaska 1990	Dictyopsella	ex gr. kiliani	Schlumberger	62	Campanian	HRV	EFP	14(2-3)	Island of Brac
Gusic et al. 1988	Dictyopsella	gr. kiliani	%	62	Campanian	HRV	EFP	2(8)	Island of Brac
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	E.N.C.I. quarry, Lichtenberg section
Hofker 1966	Dictyopsella	tenuissima	%	57	%	NLD	EFP	%	Kunrade-chalk
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	Albert Canal, cutting of Caster and Vroenhoven

~~Kalantari 1976~~	~~Fig. 1~~	~~%~~	~~sparry calcite cement, recrystallized limestone~~	~~Nezzazata & Dicyclina zone~~
~~Kalantari 1976~~	~~Fig. 1~~	~~%~~	~~%~~	~~Nezzazata & Dicyclina zone~~
~~Kalantari 1976~~	~~Fig. 1~~	~~%~~	~~%~~	~~Nezzazata & Dicyclina zone~~
Landrein et al. 2001	%	Rhapydionina		biozone à Murciella
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Luperto Sinni 1966~~	~~%~~	~~%~~	~~organogenic limestone~~	~~%~~
~~Luperto Sinni 1966~~	~~%~~	~~%~~	~~detrital limestone~~	~~%~~
~~Luperto Sinni 1966~~	~~%~~	~~%~~	~~detrital limestone~~	~~%~~
~~Luperto Sinni 1966~~	~~%~~	~~%~~	~~organogenic limestone~~	~~%~~
~~Luperto Sinni 1966~~	~~%~~	~~%~~	~~detrital limestone~~	~~%~~
~~Luperto Sinni 1966~~	~~%~~	~~%~~	~~organogenic limestone~~	~~%~~
~~Luperto Sinni 1966~~	~~%~~	~~%~~	~~micrite~~	~~%~~
Luperto Sinni 1968	%	Nummofallotia, Dictyopsella, Rhapydionina, Rhipidionina, Siderolites	white bedded Rudist limestone; neritic, shallow, temperate-warm	%
Luperto Sinni 1976	%	%	%	%
Luperto Sinni 1976	%	%	%	%
Luperto Sinni & Ricchetti 1978	Fig. 1	%	%	%
Meric & Coruh 1991	Fig. 1	Orbitoides, Omphalocyclus, Lepidorbitoides, Clypeorbis, Sulcoperculina, Sirtin	%	%
~~Moreau et al. 1978~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Moreau et al. 1978~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Mouty et al. 2003~~	~~Fig. 1~~	~~Dictyopsella cf. libanica, Pseudedomia vial~~	~~%~~	~~%~~
~~Mouty et al. 2003~~	~~Fig. 1~~	~~Dictyopsella cf. libanica, Pseudedomia vial~~	~~%~~	~~%~~
~~Mouty et al. 2003~~	~~Fig. 1~~	~~Pseudedomia viall~~	~~%~~	~~%~~
~~Mouty et al. 2003~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
~~Mouty et al. 2003~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
Premoli Silva & Brusa 1981	Fig. 5	Globorotalia calcarata	%	Core 22
~~Premoli Silva & Brusa 1981~~	~~Fig. 5~~	~~Orbitolina~~	~~%~~	~~%~~
Richter & Mariolakos 1976	Page 598	%	%	%
Richter & Mariolakos 1976	Page 600	Globotruncana sp.	%	%
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~mudstone~~	~~%~~
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~wackestone~~	~~%~~
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~wackestone~~	~~%~~
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~wackestone~~	~~%~~
Rosales Dominguez et al. 1994	Page 30	%	wackestone a packstone	%
Rosales Dominguez et al. 1994	Page 30	%	wackestone a packstone	%
Rosales Dominguez et al. 1994	Page 30	%	packstone parcialmente recristalizados	%
Rosales Dominguez et al. 1994	Page 30	%	packstone parcialmente recristalizados	%
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~wackestone arcillosos~~	~~%~~
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~wackestone arcillosos~~	~~%~~
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~wackestone~~	~~%~~
~~Rosales Dominguez et al. 1994~~	~~Page 30~~	~~%~~	~~wackestone~~	~~%~~
Rosales Dominguez et al. 1994	Page 30	%	wackestone a packstone	%
Rosales Dominguez et al. 1994	Page 30	%	packstone parcialmente recristalizados	%
Rosales Dominguez et al. 1994	Page 30	%	packstone parcialmente recristalizados	%
Rosales Dominguez et al. 1994	Page 30	%	%	%
~~Saint Marc 1973~~	~~%~~	~~%~~	~~%~~	~~%~~
Sari & Özer 2002	Fig. 1, 2	%	biomicritic, intramicritic and intrasparitic limestone; beneath hemipelagic	%
~~Sari & Özer 2002~~	~~Fig. 1, 2~~	~~Pseudedomia~~	~~massively bedded limestones with rudist reef, marine open platform, neritic~~	~~%~~
~~Sartorio & Venturini 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
Sartorio & Venturini 1988	%	Nummofallotia	%	%
~~Schlumberger 1899~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Schlumberger 1899~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Sun & Zhang 1983~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
~~Zambetakis-Lekkas 1988~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%

Dictyopsella

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Barrier & Neumann 1959	%	Nummofallotia cretacea, Subalveolina dordonica	calcaires assez finement grumeleux	%
Barrier & Neumann 1959	%	Cuneolina, Nummofallotia cretacea, Siderolites	calcaires grumeleux plus ou moins gréseux et grossiers	%
Barrier & Neumann 1959	%	Nummofallotia cretacea, Siderolites, Orbitoides media	calcaires finement grumeleux	%
Bignot & Neumann 1997	%	Sirtina	conglomérat et tuffeau éponymes	%
Bonte 1942	%	%	%	%
Bonte 1942	%	%	%	%
Caus 1988	%	%	protected shelf with normal salinity, depth 0-60 m	%
~~Caus & Cornella 1983~~	~~%~~	~~Cuneolina, Meandropsina~~	~~%~~	type species of *Dictyopselloides*
Caus & Cornella 1983	%	Cuneolina, Meandropsina, Siderolites, Orbitoides, Omphalocycus	%	%
Caus & Vicens 1984	%	Nummofallotia	alternancia de microconglomerados rojos y areniscas ocres con matriz limosa	Mächtigkeit konstant: 24 m
Caus & Vicens 1984	%	Nummofallotia	calizas margosas grises	Mächtigkeit: 10-25 m
Dilley 1973	Table 2	%	%	%
Fleury et al. 1985	Fig. 2	Nummofallotia	%	%
Gendrot 1965	Fig. 1	%	Calcaire organogène	%
Gendrot 1965	Fig. 1	%	%	%
~~Gendrot 1965~~	~~Fig. 1~~	~~%~~	~~%~~	type species of *Dictyopselloides*
~~Gendrot 1965~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1968	Fig. 1,2	Cuneolina	Calcaire micritique	%
Gendrot 1968	Fig. 1,2	%	%	%
~~Gendrot 1968~~	~~Fig. 1,2~~	~~%~~	~~%~~	~~typ species of *Dictyopselloides*~~
Gusic & Jelaska 1990	%	%	%	%
Gusic & Jelaska 1990	%	%	%	%
Gusic et al. 1988	Fig. 1	%	skeletal packstone/grainstone; peri-reefal	%
Hofker 1966	p.81;fig.51,1-7,fig. 52	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.84;fig.53,1-2,fig.95	%	%	%

Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	Windhagen, north of Windhagen
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	quarry Franssen-Nelissen
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	de Tombe (37)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	't Rooth (38)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	E.N.C.I. quarry, Lichtenberg section (39)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	Well Fortress St. Pieter, drill-hole G.B. 194 (40)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	quarry van der Zwaan (41)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	quarry Curfs (44)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	Keerderberg (45)
Hofker 1966	Dictyopsella	tenuissima	%	30	Dano-Maestrichtian	BEL	EFP	%	Albert Canal, cutting of Vroenhoven, Belgium (48)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	nine shaft Maurits III (49)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	nine shaft Maurits III (56)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	Welterberg, well I and well II (58)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	shaft I + II, State mine Emma (62)
Hofker 1966	Dictyopsella	tenuissima	%	57	Dano-Maestrichtian	NLD	EFP	%	drill-hole Heisterbrug, S.M. XVIII (63)
Hofker 1967	Dictyopsella	tenuissima	(Reuss)	32	late Santonian	ESP	EFP	%	Palleresa River, Sierra de Montsech, Lérida
Hottinger 1966	Dictyopsella	chalmasi	Schlumberger	32	Santonian?	ESP	EFP	%	Route Balaguer-Tremp, Sierra de Montsech
Hottinger 1966	Dictyopsella	?kiliani	Schlumberger	32	Santonian?	ESP	EFP	%	Route Balaguer-Tremp, Sierra de Montsech
Hottinger 1997	Dictyopsella	sp.	%	%	Santonian-Conjacian	%	%	%	Tethys
~~Hottinger 1997~~	~~Dictyopsella~~	~~sp.~~	~~%~~	~~%~~	~~Cenomanian~~	~~%~~	~~%~~	~~%~~	~~Tethys~~
~~Loeblich & Tappan 1985~~	~~Dictyopsella~~	~~charentensis~~	~~n.sp.~~	~~31~~	~~Cenomanian~~	~~FRA~~	~~EFP~~	~~1(9-11); 2(1-9)~~	~~Le Madame (Charente Maritime)~~
Loeblich & Tappan 1985	Dictyopsella	hofkeri	n.sp.	31	Maastrichtian	FRA	EFP	3(1,3-5,8,9)	St. Palais, Royan (Charente-Maritime)
Loeblich & Tappan 1985	Dictyopsella	hofkeri	n.sp.	31	Maastrichtian	FRA	EFP	3(2,6,7,10)	Plage de Vallieres, Royan (Charente-Maritime)
Loeblich & Tappan 1985	Dictyopsella	kiliani	Munier-Chalmas	32	early Santonian	ESP	EFP	4(1-7)	between Lerida and Valdaran, Lerida Province
Loeblich & Tappan 1985	Dictyopsella	muretae	Hottinger	32	late Santonian	ESP	EFP	5(1-5)	NE of Trago di Noguera, Province Lerida
Loeblich & Tappan 1988	Dictyopsella	sp.	Munier-Chalmas	31	Cenomanian-Maastrichtian	FRA	EFP	%	France
Loeblich & Tappan 1988	Dictyopsella	sp.	Munier-Chalmas	32	Cenomanian-Maastrichtian	ESP	EFP	%	Spain
Loeblich & Tappan 1988	Dictyopsella	kiliani	Munier-Chalmas	32	early Santonian	ESP	EFP	158(5-7); 159(1-3)	Lerida Prov., Spain
Loeblich & Tappan 1988	Dictyopsella	muretae	Hottinger	32	late Santonian	ESP	EFP	159(4)	Lerida Prov., Spain
Luperto Sinni 1966	Dictyopsella	kiliani	%	35	Coniacian-Santonian	ITA	EFP	%	Pulo di Altamura, Murge
Luperto Sinni 1968	Dictyopsella	kiliani	Munier-Chalmas	35	Senonian	ITA	EFP	%	Murge
Luperto Sinni 1976	Dictyopsella	kiliani	Schlumberger	35	Santonian	ITA	EFP	32(1-7)	Masseria della Crocetta, Murge
~~Luperto Sinni 1976~~	~~Dictyopsella~~	~~cuvillieri~~	~~Gendrot~~	~~35~~	~~Santonian~~	~~ITA~~	~~EFP~~	~~32(8-13)~~	~~Masseria della Crocetta, Murge~~
Luperto Sinni & Ricchetti 1978	Dictyopsella	kiliani	Schlumberger	35	late Santonian	ITA	EFP	46(12,13,15-17)	Specchia Tarantina, SE Murgia near Martina Franco (Taranto); Lat. 40°37'24", Long. 4°52'14'
~~Luperto Sinni & Ricchetti 1978~~	~~Dictyopsella~~	~~cuvillieri~~	~~Gendrot~~	~~35~~	~~late Santonian~~	~~ITA~~	~~EFP~~	~~46(14)~~	~~Specchia Tarantina, SE Murgia near Martina Franco (Taranto); Lat. 40°37'24", Long. 4°52'14'~~
~~Marie~~	~~Dictyopsella~~	~~sp.~~	~~%~~	~~31~~	~~middle Coniacian~~	~~FRA~~	~~EFP~~	~~%~~	~~Foissac~~
Marie	Dictyopsella	sp.	%	31	late Cretaceous	FRA	EFP	%	L'Étang de Berre
Marie	Dictyopsella	sp.	%	31	late Cretaceous	FRA	EFP	%	Chemin de St Pierre
Marie	Dictyopsella	sp.	%	31	late Cretaceous	FRA	EFP	%	L'Étang de Caronte
Marie	Dictyopsella	chalmasi	Schlumberger	31	late Cretaceous	FRA	EFP	%	L'Étang de Berre
Marie	Dictyopsella	chalmasi	Schlumberger	31	late Cretaceous	FRA	EFP	%	Chemin de St Pierre
Marie	Dictyopsella	chalmasi	Schlumberger	31	late Cretaceous	FRA	EFP	%	L'Étang de Caronte
Marie	Dictyopsella	kiliani	Schlumberger	31	late Cretaceous	FRA	EFP	%	L'Étang de Berre
Marie	Dictyopsella	kiliani	Schlumberger	31	late Cretaceous	FRA	EFP	%	L'Étang de Caronte
~~Moreau et al. 1978~~	~~Dictyopsella~~	~~sp.~~	~~%~~	~~31~~	~~middle Cenomanian~~	~~FRA~~	~~EFP~~	~~1(14-16, 19-21)~~	~~Le Madame (Charente Maritime)~~
~~Mouty et al. 2003~~	~~Dictyopsella~~	~~cf. libanica~~	~~Saint-Marc~~	~~26~~	~~Albian-early Cenomanian~~	~~SYR~~	~~AFP~~	~~%~~	~~Palmyrides (central Syria)~~
~~Saint-Marc 1973~~	~~Dictyopsella~~	~~libanica~~	~~n.sp.~~	~~54~~	~~early Cenomanian~~	~~LEB~~	~~AFP~~	~~1(1-20); 2(1-25)~~	~~Ata el Foukhar, SE de Beyrouth~~
Schlumberger 1899	Dictyopsella	kiliani	Munier-Chalmas	32	Santonian	ESP	EFP	8(5,7); 11(20)	Trago di Noguera
Schlumberger 1899	Dictyopsella	chalmasi	Schlumberger	32	Santonian	ESP	EFP	8(4)	Trago di Noguera
Séronie-Vivien 1972	Dictyopsella	sp.	%	31	Santonian	FRA	EFP	%	Lavrezac
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Santonian	FRA	EFP	%	Saint-Laurent-de-Cognac
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Santonian	FRA	EFP	%	Merpins
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Santonian	FRA	EFP	%	Les Charriers
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Campanian	FRA	EFP	%	Gimeux
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Campanian	FRA	EFP	%	Saint-Palais-du-Né
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Campanian	FRA	EFP	%	Route de Saint-Martial
Séronie-Vivien 1972	Dictyopsella	tenuissima	%	31	Maastrichtian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Maastrichtian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Campanian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Maastrichtian	FRA	EFP	%	Lamérac
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Maastrichtian	FRA	EFP	%	La Maison Neuve
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Campanian	FRA	EFP	%	Le Caillaud
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Maastrichtian	FRA	EFP	%	Plage des Nonnes (Meschers-sur-Gironde)
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Maastrichtian	FRA	EFP	%	Neuvic
Séronie-Vivien 1972	Dictyopsella	sp.	%	31	Maastrichtian	FRA	EFP	%	Mouleydier
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Campanian	FRA	EFP	%	Ecoute-s'il-pleut (Saint-Germain-de-Belvès)
Séronie-Vivien 1972	Dictyopsella	kiliani	%	31	Campanian	FRA	EFP	%	Route de Fongauffier (Belvès)

Lacazina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
Azéma et al. 1979	Lacazina	elongata	Munier-Chalmas	32	Senonian	ESP	EFP	37(1)	Sierra del Buey (Prebetic)
Azéma et al. 1979	Lacazina	sp.	%	32	Senonian	ESP	EFP	37(3)	Zona externa de las Cordilleras beticas
~~Bignot 1972~~	~~?Lacazina~~	~~n. sp.~~	~~%~~	~~62~~	~~Thanetian~~	~~HRV~~	~~EFP~~	~~%~~	~~Coupe de Susak, S of Susak, Istrien~~
Caus 1988	Lacazina	compressa	%	32	Santonian	ESP	EFP	%	Pyrenean Basin
Caus 1988	Lacazina	elongata	%	32	Santonian	ESP	EFP	%	Pyrenean Basin
Caus & Hottinger 1986	Lacazina	elongata	%	32	Santonian	ESP	EFP	%	western Pyrenees
Caus & Hottinger 1986	Lacazina	elongata	%	32	Santonian	ESP	EFP	%	prebetic plateformes of Murcia-Alicante regior
Caus & Hottinger 1986	Lacazina	compressa	%	32	Santonian	ESP	EFP	%	western Pyrenees
Caus et al. 1996	Lacazina	elongata	%	32	late Santonian	ESP	EFP	%	Font de les Bagasses, Sierra del Montsec (Lleida
Caus et al. 1996	Lacazina	cantabrica	%	32,31	Santonian	ESP/FRA	EFP	%	Pyrenees
~~Crespin 1962~~	~~Lacazina~~	~~vichmanni~~	~~(Schlumberger)~~	~~51~~	~~late Eocene~~	~~PNG~~	~~ASP~~	~~1(1-9); 2(1-15)~~	~~New Guinea~~
Dilley 1971	Lacazina	sp.	%	%	late Cretaceous	%	%	%	Europe or northern Africa
Dilley 1973	Lacazina	sp.	Munier-Chalmas	%	Santonian-Maastrichtian	%	EFP	%	Southern Europe
Fleury et al. 1985	Lacazina	elongata	Munier-Chalmas	32	Santonian-Campanian	ESP	EFP	%	Spain
Fleury et al. 1985	Lacazina	elongata	Munier-Chalmas	31	Santonian-Campanian	FRA	EFP	%	Aquitaine
Fleury et al. 1985	Lacazina	compressa	d'Orbigny	31	Santonian	FRA	EFP	%	Provence
Fleury et al. 1985	Lacazina	spp.	%	72	Santonian	ITA	EFP	%	Sardinia
Gendrot 1965	Lacazina	compressa	%	31	Santonian	FRA	EFP	19(2)	Bord de l'étang de Berre
Gendrot 1965	Lacazina	compressa	%	31	Santonian	FRA	EFP	19(5)	Carrière du chemin de Saint-Pierre
Gendrot 1965	Lacazina	compressa	(d'Orbigny)	31	Santonian	FRA	EFP	21(1,2)	Carrière du chemin de Saint-Pierre
Gischler et al. 1994	Lacazina	sp.	%	32	%	ESP	EFP	40(8)	Basco-Cantrabrian and Iberian basins, N Spain
Gischler et al. 1994	Lacazina	elongata	%	32	late Santonian-early Campanian	ESP	EFP	%	Losa Valley

Hofker 1966	p.127,figs.75,76	%	%	%	
Hofker 1966	p.130;figs.85,1;86	%	%	%	
Hofker 1966	p.133;figs.92,93	%	%	%	
Hofker 1966	p.158;fig.85,8	%	%	%	
Hofker 1966	p.158;fig.51,4;52	%	%	%	
Hofker 1966	p.159;figs.96,1;97	%	%	%	
Hofker 1966	p.159;figs.96,2;98	%	%	%	
Hofker 1966	p.172;figs.101,102	%	%	%	
Hofker 1966	p.173;figs.103,104	%	%	%	
Hofker 1966	p.201;fig.105.1,107	%	%	%	
Hofker 1966	p.214	%	%	%	
Hofker 1966	%	%	%	%	
Hofker 1966	p.274;figs.124,125	%	%	%	
Hofker 1966	p.275;fig.131	%	%	%	
Hofker 1966	p.275;fig.132	%	%	%	
Hofker 1967	Txt-Fig. 1	%	%	%	
Hottinger 1966	Fig. 1, 2	Cuneolina, Nummofallotia, Lacazina	calcaires détritiques et des microbrèches	%	
Hottinger 1966	Fig. 1, 2	Cuneolina, Nummofallotia, Lacazina	Calcaires détritiques et des microbrèches	%	
Hottinger 1997	%	Lacazina, Subalveolina, Meandropsina	upper photic zone, 0-40 m	%	
~~Hottinger 1997~~	~~%~~	~~%~~	~~upper photic zone, 0-40 m~~	~~%~~	
~~Loeblich & Tappan 1985~~	~~%~~	~~%~~	~~%~~	~~%~~	
Loeblich & Tappan 1985	%	%	%	%	
Loeblich & Tappan 1985	%	%	%	%	
Loeblich & Tappan 1985	%	%	%	%	
Loeblich & Tappan 1985	%	%	%	%	
Loeblich & Tappan 1988	%	%	%	%	
Loeblich & Tappan 1988	%	%	%	%	
Loeblich & Tappan 1988	%	%	%	%	
Loeblich & Tappan 1988	%	%	%	%	
Luperto Sinni 1966	%	%	limestones	%	
Luperto Sinni 1968	%	Nummofallotia, Cuneolina, Rhapydionina, Rhipidionina, Sideroltes	white bedded Rudist limestone; neritic, shallow, temperate-warm	%	
Luperto Sinni 1976	Fig. 1	%	biodetritic limestones with calcitic cement	%	
~~Luperto Sinni 1976~~	~~Fig. 1~~	~~%~~	~~biodetritic limestones with calcitic cement~~	~~%~~	
Luperto Sinni & Ricchetti 1978	Fig. 1	Cuneolina, Nummofallotia	Calcare grossolanamente biodetritico; subsident carbonatic platform, backree	well	
~~Luperto Sinni & Ricchetti 1978~~	~~Fig. 1~~	~~Cuneolina, Nummofallotia~~	~~Calcare grossolanamente biodetritico; subsident carbonatic platform, backree~~	~~well~~	
~~Marie~~	~~%~~	~~%~~	~~%~~	~~%~~	
Marie	%	%	%	%	
Marie	%	%	%	%	
Marie	%	%	%	%	
Marie	%	%	%	%	
Marie	%	%	%	%	
Marie	%	%	%	%	
Marie	%	%	%	%	
Marie	%	%	Facies recifal	%	
~~Moreau et al. 1978~~	~~Page 137~~	~~%~~	~~%~~	~~%~~	
~~Mouty et al. 2003~~	~~Fig. 1~~	~~Cuneolina, Pseudedomia~~	~~calcaires et calcaires dolomitiques; shallow marine~~	~~%~~	
~~Saint Marc 1973~~	~~Page 409~~	~~Cuneolina~~	~~calcaires beiges à grain fin et de calcaires cristallins, minces bancs marneux~~ ~~low energetic milieu, warm shallow water, barrière récifale~~	~~%~~	
Schlumberger 1899	%	Lacazina, Cuneolina, Meandropsina	sable à gros grains anguleux, presque entièrement calcair	type species	
Schlumberger 1899	%	Lacazina, Cuneolina, Meandropsina	sable à gros grains anguleux, presque entièrement calcair	%	
Séronie-Vivien 1972	Page 32	%	Calcaire marneux avec lits de marne calcair	%	
Séronie-Vivien 1972	Page 36	%	Calcaire gris blanchatre marneux, à silex, avec des lits de marnes calcaire	%	
Séronie-Vivien 1972	Page 36	%	Calcaire d'aspect tuffacé, lits de marnes calcaires, sile	%	
Séronie-Vivien 1972	Page 38	Nummofallotia, Siderolites	Calcaire beige blanchatre, avec sile	%	
Séronie-Vivien 1972	Page 44	%	%	%	
Séronie-Vivien 1972	Page 48	Nummofallotia, Siderolites	Calcaire gris blanchatre, marneu	%	
Séronie-Vivien 1972	Page 49	Nummofallotia, Siderolites	Calcaire gris blanchatre	%	
Séronie-Vivien 1972	Page 54	Nummofallotia, Siderolites	Calcaire tuffacé beige jaunatre	Zone à Orbitoides media et Pseudorotalia schaub	
Séronie-Vivien 1972	Page 54	Nummofallotia, Orbitoides, Siderolites	Calcaire marneux, gris blanchatre, glauconieu	Zone à Orbitoides media et Goupillaudina daguir	
Séronie-Vivien 1972	Page 54	Siderolites	Calcaire grisatre marneux, avec lits de sile	Zone à A. monterelensis	
Séronie-Vivien 1972	Page 55	Nummofallotia, Orbitoides, Siderolites	Calcaire jaune, très friable	Zone à Orbitoides media	
Séronie-Vivien 1972	Page 58	Nummofallotia, Orbitoides, Siderolites	Marne calcaire jaune blanchatre	Zone à Orbitoides media	
Séronie-Vivien 1972	Page 69	Siderolites	Calcaire blanchatre en bancs avec quelques silex, alternant avec des niveaux plus tendr	Zone à A. monterelensis	
Séronie-Vivien 1972	Page 72	Nummofallotia, Orbitoides, Siderolites	Calcaire tuffacé jaune clair	Zone à Orbitoides media	
Séronie-Vivien 1972	Page 94	Nummofallotia, Orbitoides, Siderolites	Calcaire crayeux, blanc, lité, niveaux de sile	Zone à Orbitoides media	
Séronie-Vivien 1972	Page 108	%	Calcaire gréseux ocre jaune	Zone à Orbitoides media	
Séronie-Vivien 1972	Page 116	Nummofallotia, Subalveolina	Calcaire pelletique à bioclastes, glauconieu	%	
Séronie-Vivien 1972	Page 121	Nummofallotia	Calcaire pelletique à bioclastes, spicule	%	

Lacazina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Azéma et al. 1979	%	Cuneolina	Intrabiosparitic limestone (grainstone); carbonate platform	%
Azéma et al. 1979	%	%	Biomicrite (wackestone); carbonate platform	%
~~Bignot 1972~~	~~Page 194~~	~~%~~	~~%~~	~~Text: Lacazinella!~~
Caus 1988	%	%	carbonate platform, 0-40 m	%
Caus 1988	%	%	carbonate platform, 0-60 m; terrigeneous platform	%
Caus & Hottinger 1986	Fig. 1	%	%	%
Caus & Hottinger 1986	%	%	%	%
Caus & Hottinger 1986	Fig. 1	%	%	%
Caus et al. 1996	%	Orbitoides	%	%
Caus et al. 1996	%	Orbitoides	%	%
~~Crespin 1962~~	~~%~~	~~%~~	~~%~~	~~type species of Lacazinella~~
Dilley 1971	%	%	%	%
Dilley 1973	Table 2	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	calcaire argileu	%
Gendrot 1965	Fig. 1	%	calcaire argileu	%
Gendrot 1965	Fig. 1	%	calcaire argileu	%
Gischler et al. 1994	Fig. 1	%	rudstone; shallow marine carbonate ramp	%
Gischler et al. 1994	Fig. 1	%	shallow marine carbonate ramp	%

Gischler et al. 1994	Lacazina	elongata	%	32	%	ESP	EFP	41(7,8)	Basco-Cantrabrian and Iberian basins, N Spain
Goldbeck unpubl.	Lacazina	sp.	%	32	Santonian	ESP	EFP	%	Tremp area
Hofker 1967	Lacazina	depressa	Schlumberger	32	late Santonian	ESP	EFP	%	Palleresa River, Sierra de Montsech, Lérida
Hottinger 1966	Lacazina	depressa	%	32	early Senonian	ESP	EFP	%	N Spain
Hottinger 1966	Lacazina	depressa	%	32	early Senonian	ESP	EFP	%	Montsech
Hottinger 1966	Lacazina	depressa	%	31	early Senonian	FRA	EFP	%	Martigues
Hottinger 1966	Lacazina	compressa	%	32	Santonian?	ESP	EFP	%	Route Balaguer-Tremp, Sierra de Montsech
Hottinger 1966	Lacazina	elongata	%	32	Santonian	ESP	EFP	%	Route Balaguer-Tremp, Sierra de Montsech
~~Hottinger 1997~~	~~Lacazina~~	~~sp.~~	~~%~~	~~%~~	~~middle to late Paleocene~~	~~%~~	~~%~~	~~%~~	~~%~~
Hottinger 1997	Lacazina	sp.	%	%	Santonian, Conjacian	%	%	%	%
Hottinger 1997	Lacazina	sp.	%	%	Santonian, Conjacian	%	%	%	%
Hottinger et al. 1989	Lacazina	sp.	%	32	late Cretaceous	ESP	EFP	%	margins of the Cantabrian Basin
Hottinger et al. 1989	Lacazina	sp.	%	32	late Cretaceous	ESP	EFP	%	prebetic realm
Hottinger et al. 1989	Lacazina	sp.	%	72	late Cretaceous	ITA	EFP	%	Sardinia
Hottinger et al. 1989	Lacazina	sp.	%	31	%	FRA	EFP	%	northeastern (French) margin of the Pyrenean basin
Hottinger et al. 1989	Lacazina	elongata	%	32	Santonian	ESP	EFP	%	St. Corneli-Boixols
Hottinger et al. 1989	Lacazina	elongata	%	32	Santonian	ESP	EFP	%	Montsec
Hottinger et al. 1989	Lacazina	elongata	%	32	Santonian	ESP	EFP	%	Tragó de Noguera
Loeblich & Tappan 1988	Lacazina	sp.	Munier-Chalmas	31	Senonian	FRA	EFP	%	France
Loeblich & Tappan 1988	Lacazina	sp.	Munier-Chalmas	32	Senonian	ESP	EFP	%	Spain
Loeblich & Tappan 1988	Lacazina	sp.	Munier-Chalmas	53	Senonian	ISR	AFP	%	Israel
Loeblich & Tappan 1988	Lacazina	compressa	(d'Orbigny)	32	Santonian	ESP	EFP	364(8-12)	Lerida Province, Spain
Marie unpubl.	Lacazina	compressa	d'Orbigny	31	%	FRA	EFP	%	l'Étang de Berre
Marie unpubl.	Lacazina	compressa	d'Orbigny	31	%	FRA	EFP	%	Chemin de St. Pierre
Schlumberger 1899	Lacazina	elongata	Munier-Chalmas	32	Santonian	ESP	EFP	8(3); 10(15-18); 11(19)	Catalogne à Trago di Noguera, Montsech, Corsù, Ayramon
~~Silvestri 1925~~	~~Lacazina~~	~~lamellifera~~	~~n. sp.~~	~~47~~	~~Cretaceous~~	~~IDN~~	~~ASP~~	~~1(4); 2(1-4)~~	~~Talang Glugur (Saling; Chaîne de Gumai, Res. Palembang~~
~~Wanner 1931~~	~~Lacazina~~	~~lamellifera~~	~~Silvestri~~	~~47~~	~~late Cretaceous~~	~~IDN~~	~~ASP~~	~~%~~	~~Talang Glugur, Gumai-Gebirge, Sumatra~~
~~Yabe & Hanzawa 1931~~	~~?Lacazina~~	~~lamellifera~~	~~Silvestri~~	~~47~~	~~late Cretaceous~~	~~IDN~~	~~ASP~~	~~%~~	~~Sumatra~~
~~Yabe & Hanzawa 1931~~	~~?Lacazina~~	~~wichmanni~~	~~Schlumberger~~	~~51~~	~~(?) late Cretaceous~~	~~PNG~~	~~ASP~~	~~%~~	~~New Guinea~~
~~Yabe & Hanzawa 1931~~	~~?Lacazina~~	~~wichmanni~~	~~Schlumberger~~	~~51~~	~~(?) Eocene~~	~~PNG~~	~~ASP~~	~~%~~	~~New Guinea~~
~~Zambetakis-Lekkas 1988~~	~~Lacazina~~	~~sp.~~	~~%~~	~~36~~	~~Paleocene~~	~~GRC~~	~~EFP~~	~~%~~	~~Coupe de Chrissovitsi~~
Chubbina									
Publication	**Genus**	**Species**	**Reference**	**Loc-No**	**Stratigraphic age**	**Country**	**Faunal Province**	**Illustration**	**Site**
Butterlin 1981	Chubbina	jamaicensis	Robinson	68	Campanian(?)-Maestrichtian	MEX	CFP	3(1-3)	Mexico, Caribbean
Butterlin 1981	Chubbina	macgillavryi	Robinson	68	Campanian-Maestrichtian	MEX	CFP	3(4-6)	Mexico, Caribbean
Butterlin 1981	Chubbina	cardenasensis	(Barker & Grimsdale)	68	Campanian-Maestrichtian	MEX	CFP	3(7-8)	Mexico, Caribbean
Dilley 1973	Chubbina	sp.	Robinson	%	Campanian-Maastrichtian	%	CFP	%	Central America
Dilley 1973	Chubbina	sp.	Robinson	1	Campanian-Maastrichtian	CUB	CFP	%	Cuba
Dilley 1973	Chubbina	sp.	Robinson	6	Campanian-Maastrichtian	JAM	CFP	%	Jamaica
Dilley 1973	Chubbina	sp.	Robinson	3	Campanian-Maastrichtian	MEX	CFP	%	Mexico
~~Fleury 1977~~	~~?Chubbina~~	~~philippsoni~~	~~n. sp.~~	~~36~~	~~Crétacé supérieur~~	~~GRC~~	~~EFP~~	~~2(11)~~	~~coupe du Klokova, Griechenland~~
~~Fleury 1977~~	~~?Chubbina~~	~~philippsoni~~	~~n. sp.~~	~~36~~	%	~~GRC~~	~~EFP~~	~~2(1-10,12-15)~~	~~SE-Pirgos~~
Hamaoui & Fourcade 1973	Chubbina	jamaicensis	Robinson	6	Campanian	JAM	CFP	7(1-4); 8(1,3); tabl.1 & 2	Jamaica
Hamaoui & Fourcade 1973	Chubbina	jamaicensis	Robinson	68	Campanian-Maastrichtian	MEX	CFP	%	Mexico
Hamaoui & Fourcade 1973	Chubbina	jamaicensis	Robinson	2	Campanian-Maastrichtian	USA	CFP	%	Florida
Hamaoui & Fourcade 1973	Chubbina	jamaicensis	Robinson	1	Campanian-Maastrichtian	CUB	CFP	%	Cuba
Loeblich & Tappan 1988	Chubbina	sp.	Robinson	6	Campanian-Maastrichtian	JAM	CFP	%	Jamaica
Loeblich & Tappan 1988	Chubbina	sp.	Robinson	68	Campanian-Maastrichtian	MEX	CFP	%	Mexico
Loeblich & Tappan 1988	Chubbina	sp.	Robinson	1	Campanian-Maastrichtian	CUB	CFP	%	Cuba
Loeblich & Tappan 1988	Chubbina	sp.	Robinson	2	Campanian-Maastrichtian	USA	CFP	%	Florida
Loeblich & Tappan 1988	Chubbina	jamaicensis	Robinson	6	Campanian	JAM	CFP	367(1-5)	Jamaica, West Indies
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	2(7)	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	2(9)	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	N1; Oxchuc
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	2(6)	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	2(2,3)	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P1; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P2; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P2; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	2(1,11)	P2; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P2; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P2; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	P2; La Trinitaria
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	Altamirano
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	Tziscao
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	Sud de Soyalo, Bochil
Pécheux 1984	Chubbina	jamaicensis	Robinson	3	Campanien-Maastrichtien	MEX	CFP	%	Sud de Soyalo, Bochil

Gischler et al. 1994	Fig. 1	%	shallowmarine carbonate ramp	%
Goldbeck unpubl.	%	%	%	%
Hofker 1967	Txt-Fig. 1	%	%	%
Hottinger 1966	Fig. 1	%	%	%
Hottinger 1966	Fig. 1	%	calcaires détritiques; parfois récifaux	%
Hottinger 1966	Fig. 1	%	calcaires détritiques; parfois récifaux	%
Hottinger 1966	Fig. 1, 2	Cuneolina, Dictyopsella, Nummofallotia	calcaires détritiques et des microbrèches	%
Hottinger 1966	Fig. 1, 2	Meandropsina, Nummofallotia	calcaires marneux ou détritiques	%
~~Hottinger 1997~~	~~%~~	~~%~~	~~upper photic zone, 0-40 m~~	~~%~~
Hottinger 1997	%	%	upper photic zone, 0-40 m	short form
Hottinger 1997	%	%	upper photic zone, 40-80 m	long form
Hottinger et al. 1989	%	%	%	%
Hottinger et al. 1989	%	%	%	%
Hottinger et al. 1989	%	%	%	%
Hottinger et al. 1989	%	%	%	%
Hottinger et al. 1989	Fig. 2	%	%	%
Hottinger et al. 1989	Fig. 2	%	%	%
Hottinger et al. 1989	Fig. 2	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Marie unpubl.	%	%	%	%
Marie unpubl.	%	%	%	%
Schlumberger 1899	%	%	%	%
~~Silvestri 1925~~	~~%~~	~~%~~	~~calcaire marmoréen~~	~~%~~
~~Wanner 1931~~	~~%~~	~~%~~	~~%~~	%
~~Yabe & Hanzawa 1931~~	~~%~~	~~%~~	~~%~~	not Lacazina
~~Yabe & Hanzawa 1931~~	~~%~~	~~%~~	~~%~~	type species of Lacazinella (Crespin 1962)
~~Yabe & Hanzawa 1931~~	~~%~~	~~%~~	~~%~~	%
~~Zambetakis Lekkas 1988~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~

Chubbina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Dilley 1973	Table 2	%	%	%
Dilley 1973	Fig. 9	%	%	%
Dilley 1973	Fig. 9	%	%	%
Dilley 1973	Fig. 9	%	%	%
~~Fleury 1977~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
~~Fleury 1977~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
Hamaoui & Fourcade 1973	%	%	milieux marins peu profonds de plateforme ou de lagune	%
Hamaoui & Fourcade 1973	%	%	milieux marins peu profonds de plateforme ou de lagune	%
Hamaoui & Fourcade 1973	%	%	milieux marins peu profonds de plateforme ou de lagune	%
Hamaoui & Fourcade 1973	%	%	milieux marins peu profonds de plateforme ou de lagune	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Pécheux 1984	Page 13	Orbitoides, Asterorbis, Orbitocyclina, Vaughanina, Sulcoperculina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	Page 13	Orbitoides, Asterorbis, Sulcoperculina	conglomérats à élements de socle	foraminifères sont remaniés!
Pécheux 1984	Page 13	Praealveolina, Borelis, ?Kathina	calcaires dolomitiques	%
Pécheux 1984	Page 13	Praealveolina, Borelis, ?Kathina	calcaires dolomitiques	%
Pécheux 1984	Page 13	Praealveolina, Borelis, ?Kathina	calcaires dolomitiques	%
Pécheux 1984	Page 13	Praealveolina, Borelis, ?Kathina	calcaires dolomitiques	%
Pécheux 1984	Page 13	?Kathina	calcaires dolomitiques légèrement marneux	%
Pécheux 1984	Page 13	?Kathina	calcaires dolomitiques légèrement marneux	%
Pécheux 1984	Page 13	?Kathina	calcaires dolomitiques légèrement marneux	%
Pécheux 1984	Page 13	?Kathina	calcaires dolomitiques légèrement marneux	%
Pécheux 1984	Page 13	?Kathina	calcaires micritiques fortement poreux, parfois dolomitiques	%
Pécheux 1984	Page 13	?Kathina	calcaires micritiques fortement poreux, parfois dolomitiques	%
Pécheux 1984	Page 13	Praealveolina	calcaires sparitiques blancs	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	niveaux à rudistes	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	niveaux à rudistes	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	niveaux à rudistes	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	niveaux à rudistes	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	niveaux à rudistes	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	niveaux à rudistes	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	niveaux à rudistes	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	calcaires micritiques roses et gris	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	calcaires micritiques roses et gris	%
Pécheux 1984	Page 13	Pseudorhapydionina, Kathina	calcaires micritiques roses et gris	%
Pécheux 1984	Fig. 22	Praealveolina	calcaires et calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina	calcaires marneux et marnes	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina	calcaires marneux et marnes	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina	calcaires marneux et marnes	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina	calcaires fins et de calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina	calcaires fins et de calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina	calcaires fins et de calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina	calcaires fins et de calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina, Sulcoperculina	calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina, Sulcoperculina	calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina, Sulcoperculina	calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, ?Kathina, Sulcoperculina	calcaires marneux	%
Pécheux 1984	Fig. 22	Praealveolina, Orbitoides, Sulcoperculina, ?Kathina	brèche massive, à éléments de calcaires	%
Pécheux 1984	Fig. 22	%	brèches mal cimentées	%
Pécheux 1984	Page 42	Praealveolina, Pseudorhapydionina, ?Kathina	calcaires gris à blancs	%
Pécheux 1984	Page 43	Nummoloculina, Borelis, Praealveolina, Pseudorhapydionina	calcaires gris à blancs	%
Pécheux 1984	Page 44	Sulcoperculina, Pseudorbitoides, Torreina	calcaires gris à blancs	%
Pécheux 1984	Page 44	Praealveolina, Sulcoperculina, Pseudorbitoides	%	%

Pécheux 1984	Chubbina	jamaicensis	Robinson	3		%	MEX	CFP	2(4)	Chiapas, SE Mexico
Pécheux 1984	Chubbina	jamaicensis	Robinson	3		%	MEX	CFP	2(5)	Chiapas, SE Mexico
Pécheux 1984	Chubbina	jamaicensis	Robinson	3		%	MEX	CFP	2(8,12)	Chiapas, SE Mexico
Pécheux 1984	Chubbina	jamaicensis	Robinson	3		%	MEX	CFP	2(10)	Chiapas, SE Mexico
Pécheux 1984	Chubbina	jamaicensis	Robinson	3		%	MEX	CFP	2(13)	Chiapas, SE Mexico
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	101(1)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	101(2)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	101(3)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	101(4)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	101(5)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	101(6)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	102(1)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	102(2)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	102(4)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	102(3)	3/4 of a mile west of Frankfield, parish of Clarendon, Jamaica, W.I., at Guinea Corn, in the bed ofthe Rio Minho
Robinson 1968	Chubbina	jamaicensis	n. sp.	6		late Campanian-Maastrichtian	JAM	CFP	102(5)	railway betw. Catadupa and Cambridge, Jamaica, W.I., at the 10th telegraph pole, plus 20 ft., after milepost 96
Robinson 1968	Chubbina	cf. macgillavryi	n. sp.	3		late Campanian-Maastrichtian	MEX	CFP	102(6)	road betw. Tuxtla Gutierrez and Ocozocuautla, state of Chiapas, Mexico, at stop 2, K.1061
Robinson 1968	Chubbina	cf. macgillavryi	n. sp.	3		late Campanian-Maastrichtian	MEX	CFP	102(7)	road betw. Tuxtla Gutierrez and Ocozocuautla, state of Chiapas, Mexico, at stop 2, K.1061
Robinson 1968	Chubbina	macgillavryi	n. sp.	3		late Campanian-Maastrichtian	MEX	CFP	102(8)	road betw. Tuxtla Gutierrez and Ocozocuautla, state of Chiapas, Mexico, at stop 2, K.1061
Robinson 1968	Chubbina	macgillavryi	n. sp.	3		late Campanian-Maastrichtian	MEX	CFP	103(3)	road betw. Tuxtla Gutierrez and Ocozocuautla, state of Chiapas, Mexico, at stop 2, K.1061
Robinson 1968	Chubbina	macgillavryi	n. sp.	3		late Campanian-Maastrichtian	MEX	CFP	103(4)	road betw. Tuxtla Gutierrez and Ocozocuautla, state of Chiapas, Mexico, at stop 2, K.1061
Rosales Dominguez et al. 1994	Chubbina	sp.	%	3		Maastrichtian	MEX	CFP	4(6)	Ocozocuautla

Pseudedomia

Publication	Genus	Species	Reference	Loc-No		Stratigraphic Age	Country	Faunal Province	Illustration		Site
~~Colalongo 1963~~	~~Sellialveolina~~	~~viallii~~	~~n.sp.~~	~~35~~		~~Cenomanian~~	~~ITA~~	~~EFP~~	~~29(1-5)~~		~~M. Panno, southern Appenines~~
~~De Castro 1988~~	~~Pseudedomia~~	~~drorimensis~~	~~Reiss, Hamaoui & Ecker~~	~~53~~		~~late Cenomanian~~	~~ISR~~	~~AFP~~	~~2(1-10); 3(1-6)~~		~~Nahal Drorim, Israel~~
De Castro 1988	Pseudedomia	sp.	%	66		Campanian or Maastrichtian	ARE	AFP	4(1,3)		Abu Dhabi
De Castro 1988	Pseudedomia	cf. hamaouii	%	66		Campanian or Maastrichtian	ARE	AFP	4(2,4,5)		Abu Dhabi
Dilley 1971	Pseudedomia	sp.	%		%	Senonian	%	EFP		%	southern Europe
Dilley 1971	Pseudedomia	sp.	%		%	Senonian	%	AFP		%	Middle East
Dilley 1973	Pseudedomia	sp.	Henson		%	Santonian-Maastrichtian	%	AFP		%	Middle East
Fleury et al. 1985	Pseudedomia	spp.	%	27		Santonian	IRQ	AFP		%	I'aq
Fleury et al. 1985	Pseudedomia	spp.	%	56		Santonian	IRN	EFP		%	I'an
Fleury et al. 1985	Pseudedomia	spp.	%	55		Santonian	KWP	AFP		%	Kuwait
Fleury et al. 1985	Pseudedomia	spp.	%	24		Santonian	QAT	AFP		%	Qatar
Fleury et al. 1985	Pseudedomia	sp.	%	27		Campanian	IRQ	AFP		%	I'aq
Fleury et al. 1985	Pseudedomia	sp.	%	56		Campanian	IRN	EFP		%	W Iran
Fleury et al. 1985	Pseudedomia	sp.	%	24		Campanian	QAT	AFP		%	Qatar
Görmüs 1996	Pseudedomia	hekimhanensis	n.sp.	38		late Campanian	TUR	EFP	1(1-3)		Sip-Sip location, Hekimhan, 70 km NW of Malatya, E Turkey
Görmüs 1999	Pseudedomia	hekimhanensis	Görmüs 1996	38		early-middle Maastrichtian	TUR	EFP	1(1-4); 2(1-5)		Sip-Sip location, Hekimhan, 70 km NW of Malatya, E Turkey; 38°50'N, 37°56'E
Görmüs 1999	Pseudedomia	multistriata	%	24		Maastrichtian	QAT	AFP		%	Quatar
Görmüs 1999	Pseudedomia	multistriata	%	32		Maastrichtian	ESP	EFP		%	Spain
Görmüs 1999	Pseudedomia	multistriata	%	36		Maastrichtian	GRC	EFP		%	Greece
Görmüs 1999	Pseudedomia	aff. multistriata	%	36		late Maastrichtian	GRC	EFP		%	Greece
Görmüs 1999	Pseudedomia	complanata	%	55		Campanian	KWP	AFP		%	Kuwait
~~Görmüs 1999~~	~~Pseudedomia~~	~~viallii~~	~~%~~	~~35~~		~~Cenomanian~~	~~ITA~~	~~EFP~~		~~%~~	~~Italy~~
Görmüs 1999	Pseudedomia	hamaouii	%	56		Campanian	IRN	EFP		%	I'an
~~Görmüs 1999~~	~~Pseudedomia~~	~~drorimensis~~	~~%~~		~~%~~	~~Cenomanian-Turonian~~	~~%~~	~~%~~		~~%~~	~~%~~
Hamaoui & Fourcade 1973	Pseudedomia	multistriata	Henson	24		Maastrichtian	QAT	AFP		%	Qatar
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~globularis~~	~~%~~	~~27~~		~~Campanian~~	~~IRQ~~	~~AFP~~		~~%~~	~~Iaq~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~drorimensis~~	~~%~~	~~53~~		~~Cenomanian~~	~~ISR~~	~~EFP~~		~~%~~	~~Israel~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~sp. "Praecox"~~	~~%~~	~~16~~		~~Cenomanian~~	~~DZA~~	~~AFP~~	~~3(1)~~		~~Algeria~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~? sp.~~	~~%~~	~~16~~		~~Cenomanian~~	~~DZA~~	~~AFP~~	~~6(5,6)~~		~~Algeria~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~viallii~~	~~Colalongo~~	~~17~~		~~Cenomanian~~	~~TUN~~	~~AFP~~	~~8(5)~~		~~Tunisia~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~sp.~~	~~%~~	~~16~~		~~Cenomanian~~	~~DZA~~	~~AFP~~	~~8(6,8)~~		~~Algeria~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~viallii~~	~~%~~	~~16~~		~~Cenomanian~~	~~DZA~~	~~AFP~~	~~8(2,4)~~		~~Algeria~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~cf. ? P. drorimensis~~	~~%~~	~~16~~		~~Cenomanian~~	~~DZA~~	~~AFP~~	~~8(7,9)~~		~~Algeria~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~viallii~~	~~Colalongo~~	~~17~~		~~Cenomanian~~	~~TUN~~	~~AFP~~	~~9(1,6,8)~~		~~Tunisia~~
~~Hamaoui & Fourcade 1973~~	~~Pseudedomia~~	~~viallii~~	~~Colalongo~~	~~16~~		~~Cenomanian~~	~~DZA~~	~~AFP~~	~~9(2-5,7)~~		~~Algeria~~
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	24		Cenomanian-Maastrichtian	QAT	AFP		%	Qatar
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	55		Cenomanian-Maastrichtian	KWP	AFP		%	Kuwait
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	17		Cenomanian-Maastrichtian	TUN	AFP		%	Tunisia
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	54		Cenomanian-Maastrichtian	LBN	AFP		%	Lebanon
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	27		Cenomanian-Maastrichtian	IRQ	AFP		%	I'aq
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	53		Cenomanian-Maastrichtian	ISR	EFP		%	Israel
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	35		Cenomanian-Maastrichtian	ITA	EFP		%	Italy
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	39		Cenomanian-Maastrichtian	PRT	EFP		%	Portugal
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	37		Cenomanian-Maastrichtian	YUG	EFP		%	Yugoslavia
Loeblich & Tappan 1988	Pseudedomia	sp.	Henson	36		Cenomanian-Maastrichtian	GRC	EFP		%	Greece
Loeblich & Tappan 1988	Pseudedomia	multistriata	Henson	24		Maastrichtian	QAT	AFP	368(6); 369(3-4)		Qatar Peninsula, Arabia
Loeblich & Tappan 1988	Pseudedomia	complanata	Eames & Smout	55		Campanian	KWP	AFP	368(7-8); 369(1-2)		Kuwait
~~Loeblich & Tappan 1988~~	~~Pseudedomia~~	~~viallii~~	~~(Colalongo)~~	~~35~~		~~Cenomanian~~	~~ITA~~	~~EFP~~	~~369(5,8)~~		~~S. Appenines, Italy~~
Mavrikas et al. 1994	Pseudedomia	aff. multistriata	%	36		late Maastrichtian	GRC	EFP	2(9-15)		Ori Valtou
Mavrikas et al. 1994	Pseudedomia	aff. multistriata	%	36		late Maastrichtian	GRC	EFP	2(1-8)		Ori Valtou
~~Mouty et al. 2003~~	~~Pseudedomia~~	~~viallii~~	~~(Colalongo)~~	~~28~~		~~Albian-early Cenomanian~~	~~SYR~~	~~AFP~~		~~%~~	~~Palmyrides (Syrie centrale)~~
~~Mouty et al. 2003~~	~~Pseudedomia~~	~~viallii~~	~~%~~	~~28~~		~~middle-late Cenomanian~~	~~SYR~~	~~AFP~~		~~%~~	~~Palmyrides (Syrie centrale)~~
Rahaghi 1976	Pseudedomia	hamaouii	n.sp.	56		Campanian	IRN	EFP	1(1-11)		Région de Kermanshah
Rahaghi 1989	Pseudedomia	persica	n.sp.	56		Campanian	IRN	EFP	3(1-8)		costal Fars of Iran, Kangan area
~~Sari & Ozer 2002~~	~~Pseudedomia~~	~~viallii~~	~~(Colalongo)~~	~~36~~		~~middle Cenomanian~~	~~TUR~~	~~EFP~~		~~%~~	~~Korkuteli Area (Western Taurides)~~

Raadshoovenia

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Azema et al. 1979	Raadshoovenia	salentina	(Papetti & Tedeschi)	32	Senonian	ESP	EFP	41(12-14)	Pantano de las Camarillas
Azema et al. 1979	Raadshoovenia	salentina	(Papetti & Tedeschi)	32	Senonian	ESP	EFP	36(3)	Pantano de las Camarillas (Prebetic)
Bignot 1972	Raadshoovenia	cuvillieri	%	63	%	SVN	EFP		%	La région de Divaca
Bignot 1972	Raadshoovenia	cuvillieri	%	63	Senonian	SVN	EFP		%	Coupe de Divaca
Bignot 1972	Raadshoovenia	cuvillieri	%	63	Senonian	SVN	EFP		%	Coupe de Dutovlje
Bignot 1972	Raadshoovenia	cuvillieri	%	63	Senonian	SVN	EFP		%	Coupe d'Opicina
Bignot 1972	Raadshoovenia	cuvillieri	%	63	Senonian	SVN	EFP	15(2-7)		entre Dutovlje et Kreplje
~~Butterlin 1981~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold~~	~~65~~	~~early Eocene~~	~~MEX~~	~~CFP~~	~~4(7)~~		~~Mexico, Caribi~~

Pécheux 1984	%	%	%	%
Pécheux 1984	%	%	%	%
Pécheux 1984	%	%	%	%
Pécheux 1984	%	%	%	%
Pécheux 1984	%	%	%	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	%	shallowshelf or lagoonal environment	%
Robinson 1968	Page 527	Kathina, Sulcoperculina, Ayalaina	%	%
Robinson 1968	Page 527	Kathina, Sulcoperculina, Ayalaina	%	%
Robinson 1968	Page 527	Kathina, Sulcoperculina, Ayalaina	%	%
Robinson 1968	Page 527	Kathina, Sulcoperculina, Ayalaina	%	%
Robinson 1968	Page 527	Kathina, Sulcoperculina, Ayalaina	%	%
Rosales Dominguez et al. 1994	%	%	%	%

Pseudedomia

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
~~Colalongo 1963~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
~~De Castro 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
De Castro 1988	%	%	%	%
De Castro 1988	%	%	%	%
Dilley 1971	%	%	%	%
Dilley 1971	%	%	%	%
Dilley 1973	Table 2	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Görmüs 1996	Fig. 1	%	mudstone-sandstone level; lagoon	Syn.: P. hamamouii Görmus pl.22(12-14); pl.23(1a-c)
Görmüs 1999	Fig. 1	%	mudstone-sandstone leve	%
Görmüs 1999	%	%	%	%
Görmüs 1999	%	%	%	%
Görmüs 1999	%	%	%	%
Görmüs 1999	%	%	limestone	%
Görmüs 1999	%	%	%	%
~~Görmüs 1999~~	~~%~~	~~%~~	~~%~~	~~%~~
Görmüs 1999	%	%	%	%
~~Görmüs 1999~~	~~%~~	~~%~~	~~%~~	~~%~~
Hamaoui & Fourcade 1973	%	%	mers peu profondes de type lagunaire	Syn.: "Praecosinella", Sellialveolina
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~type species: Pseudochubbina~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~milieux marins peu profonds, assez chauds,~~ ~~à salinité normale, das les zones de plateforme interne~~	~~%~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~anciennement appelée "Ouladnailla ?~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~anciennement appelée "Praecosinella~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~Spécimens appelés "Praecosinella~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Hamaoui & Fourcade 1973~~	~~%~~	~~%~~	~~%~~	~~%~~
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
Mavrikas et al. 1994	Fig. 1	Siderolites, Orbitoides, Lepidorbitoides, Hellenocyclina, Sirtina	limestones with large rudists; plate-forme externe	%
Mavrikas et al. 1994	Fig. 1	Orbitoides, Sirtina	limestones with large rudists; plate-forme externe	%
~~Mouty et al. 2003~~	~~Fig. 1~~	~~Cuneolina (laurentii, pavonia), Dictyopsella cf. libanica~~	~~%~~	~~%~~
~~Mouty et al. 2003~~	~~Fig. 1~~	~~Cuneolina pavonia~~	~~%~~	~~%~~
Rahaghi 1976	%	%	%	Görmüs 1996: pl.1, fig.1 = P. hekimhanensis
Rahaghi 1989	Fig. 1	Globotruncana elevata	limestones, cream, detrital, thick bedded	%
~~Sari & Özer 2002~~	~~Fig. 1, 2~~	~~Cuneolina~~	~~massively bedded limestones with rudist reef, marine open platform, neritic~~	~~%~~

Raadshoovenia

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Azema et al. 1979	%	%	%	%
Azema et al. 1979	%	%	recrystallized biopelsmicritic limestone (packstone); platform environmen	%
Bignot 1972	fig.11,12,14	Rhapydionina, Rhipidionina	%	%
Bignot 1972	fig.11,12,14	Rhapydionina	Calcaires gris sombre	%
Bignot 1972	fig.17	Cuneolina, Rhapydionina, Rhipidionina	Calcaires sombres	%
Bignot 1972	fig. 24	Cuneolina	Calcaire brun	%
Bignot 1972	fig.17	Cuneolina	calcaire microcristallin	%
~~Butterlin 1981~~	~~%~~	~~%~~	~~%~~	~~%~~

~~De Castro 1971~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold~~	~~9~~	~~%~~	~~GTM~~	~~CFP~~	~~fig. 18a-d~~		~~Guatemala~~
De Castro 1971	Raadshoovenia	salentina	(Papetti & Tedeschi)	35	late Santonian	ITA	EFP	fig. 19		cave fra Ortelle e Cocumola in provincia di Lecce
~~De Castro 1971~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold~~	~~9~~	~~early Eocene~~	~~GTM~~	~~CFP~~	~~14(1-4)~~		~~Guatemala~~
De Castro 1971	Raadshoovenia	cuvillieri	(Fourcade)	32	Campanian	ESP	EFP	14(5-7)		provincia di Murcie, regione di Jumilla, Spagna
De Castro 1971	Raadshoovenia	salentina	(Papetti & Tedeschi)	35	late Santonian	ITA	EFP	14(8)		cave fra Ortelle e Cocumola in provincia di Lecce
De Castro 1988	Raadshoovenia	salentina	(Papetti & Tedeschi)	35	early Maastrichtian (or late Campanian?)	ITA	EFP	6(1-9); 7(1)		Vitigliano, prov. De Lecce, Italie
De Castro 1990	Raadshoovenia	salentina	%	35	early Maastrichtian (or late Campanian?)	ITA	EFP	pl.31, pl.32		Cava a Nord di Vitigliano, Lecce
De Castro 1990	Raadshoovenia	salentina	%	35	early Maastrichtian (or late Campanian?)	ITA	EFP	pl.33, pl.34		Cava a Nord di Vitigliano, Lecce
~~Fleury 1977~~	~~Raadshoovenia~~	~~?guatemalensis~~	~~%~~	~~36~~	~~late Cretaceous~~	~~GRC~~	~~EFP~~	~~1(9,12,13,17)~~		~~coupe du Klokova, Griechenland~~
~~Fleury 1977~~	~~Raadshoovenia~~	~~?guatemalensis~~	~~%~~	~~36~~	~~late Cretaceous~~	~~GRC~~	~~EFP~~	~~1(1)~~		~~coupe de Vitina, Griechenland~~
~~Fleury 1977~~	~~Raadshoovenia~~	~~?guatemalensis~~	~~%~~	~~36~~	~~late Cretaceous~~	~~GRC~~	~~EFP~~	~~%~~		~~coupe du Mavrovouni, Griechenland~~
Fleury 1977	Raadshoovenia	salentina	%	36	late Cretaceous	GRC	EFP	%		coupe du Klokova, Griechenland
~~Fleury 1977~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold ?~~	~~36~~	~~%~~	~~GRC~~	~~EFP~~	~~1(2,5,6,8,11,15,20)~~		~~südlich Pylos, Griechenland~~
~~Fleury 1977~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold ?~~	~~36~~	~~%~~	~~GRC~~	~~EFP~~	~~1(3,10,18,19)~~		~~Skhiza, Griechenland~~
~~Fleury 1977~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold ?~~	~~36~~	~~%~~	~~GRC~~	~~EFP~~	~~1(4)~~		~~nördlich Kalamata, Griechenland~~
~~Fleury 1977~~	~~Raadshoovenia~~	~~?guatemalensis~~	~~%~~	~~36~~	~~late Cretaceous~~	~~GRC~~	~~EFP~~	~~1(7,16)~~		~~coupe du Klokova, Griechenland~~
~~Fleury 1977~~	~~Raadshoovenia~~	~~?guatemalensis~~	~~%~~	~~36~~	~~late Cretaceous~~	~~GRC~~	~~EFP~~	~~1(11)~~		~~coupe du Mavrovouni, Griechenland~~
Fleury et al. 1985	Raadshoovenia	spp.	%	35	Santonian	ITA	EFP	%		Italy
Fleury et al. 1985	Raadshoovenia	spp.	%	37	Santonian	YUG	EFP	%		Yugoslavia
Fleury et al. 1985	Raadshoovenia	spp.	%	27	Santonian	IRQ	AFP	%		Iraq
Fleury et al. 1985	Raadshoovenia	sp.	van den Bold	62	Campanian	HRV	EFP	%		external Dinarides
Fleury et al. 1985	Raadshoovenia	sp.	van den Bold	35	Campanian	ITA	EFP	%		southern Apennin
Fleury et al. 1985	Raadshoovenia	sp.	van den Bold	27	Campanian	IRQ	AFP	%		Iraq
Fleury et al. 1985	Raadshoovenia	sp.	van den Bold	32	Campanian	ESP	EFP	%		southern Spain
Fleury et al. 1990	Raadshoovenia	sp.	%	36	late Cretaceous	GRC	EFP	%		Monts Valtou
Fleury et al. 1979	Raadshoovenia	salentina	(Papetti & Tedeschi)	36	late Cretaceous	GRC	EFP	%		la moitié occidentale du chaînon d'Ayios Nikolaos, Peloponne
~~Fleury et al. 1979~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold ?~~	~~36~~	~~late Cretaceous~~	~~GRC~~	~~EFP~~	~~%~~		~~la moitié occidentale du chaînon d'Ayios Nikolaos, Peloponne~~
Hamaoui & Fourcade 1973	Raadshoovenia	sp.	van den Bold	%	%	%	%	%		%
Hamaoui & Fourcade 1973	Raadshoovenia	salentina	(Papetti & Tedeschi)	32	late Senonian	ESP	EFP	2(1,3,9); pl.18		Cordillères bétiques
Hamaoui & Fourcade 1973	Raadshoovenia	salentina	(Papetti & Tedeschi)	36	late Senonian	GRC	EFP	2(2); 5(7,9,10)		Gréce continentale
~~Hamaoui & Fourcade 1973~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold~~	~~9~~	~~early Eocene~~	~~GTM~~	~~CFP~~	~~2(7,8)~~		~~Guatemala~~
Hamaoui & Fourcade 1973	Raadshoovenia	salentina	(Papetti & Tedeschi)	35	Santonian	ITA	EFP	%		Italie
Hamaoui & Fourcade 1973	Raadshoovenia	salentina	%	36	Santonian	GRC	EFP	%		Iles Ioniennes á Zanthe
Loeblich & Tappan 1988	Raadshoovenia	sp.	van den Bold	32	Campanian	ESP	EFP	%		Spain
Loeblich & Tappan 1988	Raadshoovenia	sp.	van den Bold	35	Campanian	ITA	EFP	%		Italy
Loeblich & Tappan 1988	Raadshoovenia	sp.	van den Bold	36	Campanian	GRC	EFP	%		Greece
~~Loeblich & Tappan 1988~~	~~Raadshoovenia~~	~~sp.~~	~~van den Bold~~	~~9~~	~~?early Eocene?~~	~~GTM~~	~~CFP~~	~~%~~		~~Guatemala~~
~~Loeblich & Tappan 1988~~	~~Raadshoovenia~~	~~guatemalensis~~	~~van den Bold~~	~~9~~	~~early Eocene~~	~~GTM~~	~~CFP~~	~~371(1,3,4)~~		~~Guatemala~~
Loeblich & Tappan 1988	Raadshoovenia	salentina	(Papetti & Tedeschi)	35	late Santonian	ITA	EFP	371(2)		Poggiardo, Italy
Luperto Sinni & Ricchetti 1978	Raadshoovenia	salentina	(Papetti & Tedeschi)	35	late Maastrichtian	ITA	EFP	51(1-7)		Specchia Tarantina, SE Murgia near Martina Franca (Taranto
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~Paleocene-early Eocene~~	~~MEX~~	~~CFP~~	~~%~~		~~Tuxtla Gutierez~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~late Paleocene and/or early Eocene~~	~~MEX~~	~~CFP~~	~~%~~		~~Ixtapa (A1)~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~late Paleocene and/or early Eocene~~	~~MEX~~	~~CFP~~	~~4(6,9,19)~~		~~N2, Oxchuc~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~after late Paleocene and/or early Eocene~~	~~MEX~~	~~CFP~~	~~4(10)~~		~~N3, Oxchuc~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~%~~	~~MEX~~	~~CFP~~	~~%~~		~~N3, Oxchuc~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~%~~	~~MEX~~	~~CFP~~	~~4(1)~~		~~%~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~%~~	~~MEX~~	~~CFP~~	~~4(2)~~		~~%~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~%~~	~~MEX~~	~~CFP~~	~~4(3-5,7,8,11-15,20)~~		~~%~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~%~~	~~MEX~~	~~CFP~~	~~4(16,17,21-23,25-27)~~		~~%~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~%~~	~~MEX~~	~~CFP~~	~~4(18)~~		~~%~~
~~Pécheux 1984~~	~~Raadshoovenia~~	~~guatemalensis~~	~~%~~	~~3~~	~~%~~	~~MEX~~	~~CFP~~	~~4(24)~~		~~%~~
Sartorio & Venturini 1988	Raadshoovenia	salentina	(Papetti & Tedeschi)	35	Campanian	ITA	EFP	p. 123		Poggiardo, Apulia

Rhapydionina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Bignot 1972	Rhapydionina	liburnica	%	63	Senonian	SVN	EFP	%	Coupe du Mont Vremscica
Bignot 1972	Rhapydionina	liburnica	%	63	%	SVN	EFP	%	La région de Divaca
Bignot 1972	Rhapydionina	liburnica	%	63	Senonian	SVN	EFP	%	Coupe de Divaca
Bignot 1972	Rhapydionina	liburnica	%	63	Senonian	SVN	EFP	%	Coupe de Lokev
Bignot 1972	Rhapydionina	liburnica	%	63	Senonian	SVN	EFP	%	Coupe de Dutovlje
Bignot 1972	Rhapydionina	liburnica	%	35	Senonian	ITA	EFP	%	Coupe du Monte Spaccato
Bignot 1972	Rhapydionina	liburnica	%	63	Senonian	SVN	EFP	%	Coupe au N de Kozina
Bignot 1972	Rhapydionina	sp.	%	63	Senonian	SVN	EFP	%	Coupe de Sv. Lovrec
Bignot 1972	Rhapydionina	liburnica	Stache	63	%	SVN	EFP	12(3)	Zelezna Vrata, Mont Vouznjak; près du Mont Trstelj
Bignot 1972	Rhapydionina	liburnica	Stache	63	%	SVN	EFP	12(4)	Dolnje-Lezece
Bignot 1972	Rhapydionina	liburnica	Stache	63	Senonian	SVN	EFP	13(1-3,5-7,9,10,12,13)	entre Dutovlje et Kreplje
Bignot 1972	Rhapydionina	liburnica	Stache	63	Senonian	SVN	EFP	13(4,8)	Dolnje-Lezece
Bignot 1972	Rhapydionina	liburnica	Stache	63	Senonian	SVN	EFP	13(11)	Mont Vremscica
Bignot 1972	Rhapydionina	liburnica	Stache	63	Senonian	SVN	EFP	14(1-4)	entre Dutovlje et Kreplje
Bignot 1972	Rhipidionina	liburnica	%	63	%	SVN	EFP	%	La région de Divaca
Bignot 1972	Rhipidionina	liburnica	%	63	Senonian	SVN	EFP	%	Coupe de Lokev
Bignot 1972	Rhipidionina	liburnica	%	63	Senonian	SVN	EFP	%	Coupe de Dutovlje
Bignot 1972	Rhipidionina	liburnica	%	35	Senonian	ITA	EFP	%	Coupe du Monte Spaccatc
Bignot 1972	Rhipidionina	liburnica	Stache	63	%	SVN	EFP	pl.12, fig.3	Zelezna Vrata, Mont Vouznjak; près du Mont Trstelj
Bignot 1972	Rhipidionina	liburnica	Stache	63	%	SVN	EFP	pl.12, fig.4	Dolnje-Lezece
Bignot 1972	Rhipidionina	liburnica	Stache	63	Senonian	SVN	EFP	pl.14, fig.5	entre Dutovlje et Kreplje
Bignot 1972	Rhipidionina	liburnica	Stache	63	Senonian	SVN	EFP	pl.14, fig.6	Zelezna Vrata, Mont Vouznjak; près du Mont Trstel
Bignot 1972	Rhipidionina	liburnica	Stache	63	Senonian	SVN	EFP	pl.14, fig.7-9	Dolnje-Lezece
~~Butterlin 1981~~	~~Rhapydionina~~	~~sp.~~	~~%~~	~~68~~	~~Jurassic-middle Eocene~~	~~MEX~~	~~CFP~~	~~4(1,2)~~	~~Mexico, Caribe~~
~~De Castro 1965~~	~~Rhapydionina~~	~~dubia~~	~~n. sp.~~	~~35~~	~~middle-late Cenomanian~~	~~ITA~~	~~EFP~~	~~2(1-21); 3(1-16); 4(1-13); 5(1-24); 6(1-16)~~	~~Monte Calvi, presso Garzano, in provincia di Caserta~~
~~De Castro 1965~~	~~Rhapydionina~~	~~laurinensis~~	~~n. sp.~~	~~35~~	~~late Cenomanian~~	~~ITA~~	~~EFP~~	~~7(1-14); 8(1-12); 9(1-30); 10(1-16)~~	~~Cocuzzo dei Palombi, presso Sacco, in provincia di Salerno~~
~~De Castro 1965~~	~~Rhapydionina~~	~~casertana~~	~~n. sp.~~	~~35~~	~~late Cenomanian~~	~~ITA~~	~~EFP~~	~~11(1-3); 12(1-3,6-10,12,13); 13(1-17)~~	~~Monte Cerreto, presso Tuoro, in provincia di Caserta~~
~~De Castro 1965~~	~~Rhapydionina~~	~~casertana~~	~~n. sp.~~	~~35~~	~~late Cenomanian~~	~~ITA~~	~~EFP~~	~~11(1-9); 12(1,5,11)~~	~~Monte Calvi, presso Garzano, in provincia di Caserta~~
De Castro 1972	Rhapydionina	liburnica	(Stache)	63	Senonian	SVN	EFP	1(a,b)	ta Dutovlje e Kreplje
De Castro 1972	Rhipidionina	liburnica	(Stache)	63	Senonian	SVN	EFP	pl.2, fig.a,b	D -Lezece
Dilley 1973	Rhapydionina	sp.	Stache	%	Cretaceous	%	%	%	NO AUTHENTIC CRETACEOUS RECORDS
Fleury 1977	Rhapydionina	liburnica	%	36	late Cretaceous	GRC	EFP	%	coupe du Klokova
Fleury 1977	Rhapydionina	liburnica	%	36	late Cretaceous	GRC	EFP	%	coupe de Vitina
Fleury 1977	Rhapydionina	liburnica	%	36	late Cretaceous	GRC	EFP	%	coupe du Mavrovouni
Fleury & Godfriaux 1974	Rhapydionina	liburnica	(Stache)	36	Maastrichtian	GRC	EFP	%	près du ravin du Xirolaki Olympou, Peloponnes, Griechenland

De Castro 1971	%	%	%	%
De Castro 1971	%	%	%	%
De Castro 1971	%	%	%	%
De Castro 1971	%	%	%	%
De Castro 1971	%	%	%	%
De Castro 1988	%	%	%	%
De Castro 1990	p. 14	%	white limestone with abundant micrite and some sparite, grain-supported (packstone	%
De Castro 1990	p. 14	Orbitoides, Cuneolina	white limestone with micrite and some sparite, grain-supported (packstone-grainstone	%
Fleury 1977	fig. 1	%	%	%
Fleury 1977	fig. 1	Rhapydionina sp., Cuneolina gr. pavonii	%	%
Fleury 1977	fig. 1	Rhapydionina sp., Cuneolina gr. pavonii	%	%
Fleury 1977	fig. 1	Raadshoovenia salentina, Cuneolina gr. pavonii	%	%
Fleury 1977	fig. 1	Raadshoovenia salentina, Cuneolina gr. pavonii	%	%
Fleury 1977	fig. 1	Rhapydionina sp., Cuneolina gr. pavonii	%	%
Fleury 1977	fig. 1	Rhapydionina sp., Cuneolina gr. pavonii	%	%
Fleury 1977	fig. 1	Cuneolina gr. pavonii	%	%
Fleury 1977	fig. 1	%	%	%
Fleury et al. 1985	fig. 1	%	%	%
Fleury et al. 1985	fig. 1	%	%	%
Fleury et al. 1985	fig. 1	%	%	%
Fleury et al. 1985	p.759	%	%	%
Fleury et al. 1985	p.759	%	%	%
Fleury et al. 1985	p.759	%	%	%
Fleury et al. 1985	p.759	%	%	%
Fleury et al. 1990	fig.1	Orbitoides	calcaires pétris de rudistes entiers accolés	%
Fleury et al. 1979	fig. 3	%	calcaires clairs à patine jaunâtre	%
Fleury et al. 1979	fig. 3	%	calcaires clairs à patine jaunâtre	%
Hamaoui & Fourcade 1973	%	%	milieux marins abrités, peu profonds, parfois confinés, de la plateforme interne	Syn.: CuvillierinellaPapetti & Tedesch
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	Type species of Cuvillierinella
Luperto Sinni & Ricchetti 1978	%	%	calcare biomicritico dolomitizzato	%
Pécheux 1984	%	%	calcaires blancs	normalerweise late Cretaceous
Pécheux 1984	%	%	calcaires massifs	normalerweise late Cretaceous
Pécheux 1984	%	%	%	normalerweise late Cretaceous
Pécheux 1984	%	%	marnes, sables, grès et conglomérats	eigentlich fossilfrei, normalerweise late Cretaceous
Pécheux 1984	%	%	marnes, sables, grès et conglomérats	eigentlich fossilfrei, normalerweise late Cretaceous
Pécheux 1984	%	%	%	normalerweise late Cretaceous
Pécheux 1984	%	%	%	normalerweise late Cretaceous
Pécheux 1984	%	%	%	normalerweise late Cretaceous
Pécheux 1984	%	%	%	normalerweise late Cretaceous
Pécheux 1984	%	%	%	normalerweise late Cretaceous
Pécheux 1984	%	%	%	normalerweise late Cretaceous
Sartorio & Venturini 1988	%	Cuneolina	%	%

Rhapydionina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Bignot 1972	fig.6	Cuneolina	Calcaires gris sombre ou noirs	%
Bignot 1972	fig.11,12,14	Rhipidionina, Raadshoovenia	%	%
Bignot 1972	fig.11	Raadshoovenia	Calcaires gris sombre	%
Bignot 1972	fig.15	Rhipydionina	Calcaires noirs	%
Bignot 1972	fig.17	Cuneolina, Rhipidionina, Raadshoovenia	Calcaires sombre	%
Bignot 1972	fig.21	Rhipidionina	Calcaires sombre	%
Bignot 1972	fig.97	%	Calcaire noir	%
Bignot 1972	fig.207	%	Calcaires gris	%
Bignot 1972	fig.39	Rhipidionina	Calcaire cristallin	%
Bignot 1972	fig.11	Rhipidionina	Calcaire à ciment spathique localement microcristallin	gisment-type
Bignot 1972	fig.17	%	%	%
Bignot 1972	fig.11	%	%	gisment-type
Bignot 1972	fig.6	%	%	%
Bignot 1972	fig.17	Rhipidionina	%	%
Bignot 1972	fig.11,12,14	Rhapydionina, Raadshoovenia	%	%
Bignot 1972	fig.15	Rhapydionina	Calcaires noirs	%
Bignot 1972	fig.17	Cuneolina, Rhapydionina, Raadshoovenia	Calcaires sombres	%
Bignot 1972	fig.21	Rhapydionina	Calcaires sombres	%
Bignot 1972	fig.39	Rhapydionina	Calcaire cristallin	%
Bignot 1972	fig.11	Rhapydionina	Calcaire à ciment spathique localement microcristallin	gisment-type
Bignot 1972	fig.11	%	%	%
Bignot 1972	fig.39	%	%	%
Bignot 1972	fig.11	%	%	gisment-type
Butterlin 1981	%	%	%	%
De Castro 1965	Fig. 1	%	%	%
De Castro 1965	Fig. 1	%	%	%
De Castro 1965	Fig. 1	%	%	%
De Castro 1965	Fig. 1	%	%	%
De Castro 1972	%	%	%	%
De Castro 1972	%	%	%	%
Dilley 1973	%	%	%	%
Fleury 1977	fig. 1	%	%	%
Fleury 1977	fig. 1	%	%	%
Fleury 1977	fig. 1	%	%	%
Fleury & Godfriaux 1974	p.151	Cuneolina	calcaire gris, bleu ou blanc et de dolomie saccharoide bleu-clair à linéoles blanches	%

Fleury & Godfriaux 1974	Rhapydionina	liburnica	%	36	Maastrichtian	GRC	EFP	%	près du ravin du Xirolaki Olympou, Peloponnes, Griechenland
Fleury & Godfriaux 1974	Rhapydionina	liburnica	%	36	Maastrichtian	GRC	EFP	%	près du ravin du Xirolaki Olympou, Peloponnes, Griechenland
Fleury et al. 1985	Rhapydionina	liburnica	%	35	Maastrichtian	ITA	EFP	%	Italy
Fleury et al. 1985	Rhapydionina	liburnica	%	37	Maastrichtian	YUG	EFP	%	Yougoslavie
Fleury et al. 1985	Rhapydionina	liburnica	%	61	Maastrichtian	ALB	EFP	%	Albania
Fleury et al. 1985	Rhapydionina	liburnica	%	36	Maastrichtian	GRC	EFP	%	Greece
Fleury et al. 1985	Rhapydionina	liburnica	%	36	Maastrichtian	GRC	EFP	%	Crete
Fleury et al. 1985	Rhapydionina	liburnica	%	69	Maastrichtian	ZYP	EFP	%	Cyprus
Fleury et al. 1985	Rhapydionina	liburnica	%	38	Maastrichtian	TUR	EFP	%	Turkey
Fleury et al. 1985	Rhapydionina	sp.	%	27	Maastrichtian	IRQ	EFP	%	Iraq
Fleury et al. 1979	Rhapydionina	liburnica	(Stache)	36	late Cretaceous	GRC	EFP	%	la moitié occidentale du chaînon d'Ayios Nikolaos, Peloponne
Fleury et al. 1990	Rhapydionina	liburnica	(Stache)	36	Maastrichtian	GRC	EFP	%	Gavrovo-Tripolitza
Gusic & Jelaska 1990	Rhapydionina	liburnica	%	62	Maastrichtian	HRV	EFP	19(6)	Island of Brac
Gusic & Jelaska 1990	?Rhapydionina	liburnica	%	62	Maastrichtian	HRV	EFP	20(2)	Island of Brac
Gusic et al. 1988	Rhapydionina	liburnica	%	62	Maastrichtian	HRV	EFP	2(11)	Island of Brac
Hamaoui & Fourcade 1973	Rhapydionina	sp.	%	%	%	%	%	%	%
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	36	Maastrichtian	GRC	EFP	pl. 1	Carpatos, Grèce
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	37	late Senonian	YUG	EFP	10(1,2,4,5,7); 11(2,4); 13(1,4,7); 14(2-9)	Yougoslavie
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	36	late Senonian	GRC	EFP	10(3,6,8,9); 11(3,5,6,7); 13(2,3); 14(1)	Carpatos, Grèce
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	36	late Maastrichtian	GRC	EFP	12(1a,2,4-6)	Carpatos, Grèce
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	37	late Maastrichtian	YUG	EFP	12(3)	Yougoslavie
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	62	Maastrichtian	HRV	EFP	16(2,5-7)	Istrie
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	37	Campanian to Maastrichtian	YUG	EFP	pl.19	Yougoslavie
Hamaoui & Fourcade 1973	Rhapydionina	liburnica	(Stache)	37	late Maastrichtian	YUG	EFP	pl.21	Yougoslavie
Hamaoui & Fourcade 1973	Rhipidionina	sp.	%	37	Campanian-Maastrichtian	YUG	EFP	%	Yougoslavie
Hamaoui & Fourcade 1973	Rhipidionina	sp.	%	36	Campanian-Maastrichtian	GRC	EFP	%	Grèce
Hamaoui & Fourcade 1973	Rhipidionina	liburnica	(Stache)	36	Maastrichtian	GRC	EFP	pl.6, fig.1,4	Carpatos, Grèce
Hamaoui & Fourcade 1973	Rhipidionina	liburnica	(Stache)	36	Maastrichtian	GRC	EFP	pl.6, fig.2	Grèce
Hamaoui & Fourcade 1973	Rhipidionina	liburnica	(Stache)	37	late Senonian	YUG	EFP	pl.6, fig.3	Yougoslavie
~~Ho et al. 1976~~	~~Rhapydionina~~	~~urensis~~	~~Henson~~	~~48~~	~~%~~	~~CHN~~	~~ASP~~	~~1(9,10,17)~~	~~Mount Jolmo Lungma region~~
~~Ho et al. 1976~~	~~Rhapydionina~~	~~elliptica~~	~~n. sp.~~	~~48~~	~~%~~	~~CHN~~	~~ASP~~	~~1(11-14)~~	~~Mount Jolmo Lungma region~~
~~Kalantari 1976~~	~~Rhipidionina~~	~~sp.~~	~~%~~	~~56~~	~~middle Eocene~~	~~IRN~~	~~AFP~~	~~37(3)~~	~~Sarvestan area, SW Iran~~
~~Kalantari 1976~~	~~Rhapydionina~~	~~urensis var. minima~~	~~Henson~~	~~56~~	~~middle Eocene~~	~~IRN~~	~~AFP~~	~~38(4)~~	~~Sarvestan area, SW Iran~~
~~Kalantari 1976~~	~~Rhipidionina~~	~~urensis~~	~~Henson~~	~~56~~	~~middle Eocene~~	~~IRN~~	~~AFP~~	~~38(9,11); 39; 41(1)~~	~~Sarvestan area, SW Iran~~
Landrein et al. 2001	Rhapydionina	sp.	%	36	late Campanian-Maastrichtian	GRC	EFP	fig.6, C,D	Grèce
Landrein et al. 2001	Rhapydionina	liburnica	Stache	36	late Maastrichtian	GRC	EFP	%	Grèce
Loeblich & Tappan 1988	Rhapydionina	sp.	Stache	37	late Cenomanian-Maastrichtian	YUG	EFP	%	Yugoslavia
Loeblich & Tappan 1988	Rhapydionina	sp.	Stache	36	late Cenomanian-Maastrichtian	GRC	EFP	%	Greece
Loeblich & Tappan 1988	Rhapydionina	sp.	Stache	35	late Cenomanian-Maastrichtian	ITA	EFP	%	Italy
Loeblich & Tappan 1988	Rhapydionina	liburnica	(Stache)	37	late Senonian	YUG	EFP	370(1-11)	Yugoslavia
Luperto Sinni 1965	Rhapydionina	sp.	%	35	early Senonian	ITA	EFP	%	near Altamura, district of Bari, Murge
Luperto Sinni 1968	Rhapydionina	sp.	%	35	Senonian	ITA	EFP	%	Murge
Luperto Sinni 1968	Rhipidionina	sp.	%	35	Senonian	ITA	EFP	%	Murge
Mavrikas et al. 1994	Rhapydionina	liburnica	(Stache)	36	late Maastrichtian	GRC	EFP	%	Ori Valtou
Reichel 1984	Rhapydionina	liburnica	(Stache)	63	Maastrichtian	SVN	EFP	diverse Abb.	Vremski-Britof
Sartorio & Venturini 1988	Rhapydionina	liburnica	(Stache)	63	Maastrichtian	SVN	EFP	p. 130	Vremski-Britof
~~Seiglie & Ayala-Castanares 1963~~	~~Rhapydionina~~	~~sp.~~	~~%~~	~~1~~	~~Maastrichtian~~	~~CUB~~	~~CFP~~	~~1(1)~~	~~Cantera Penalver, en el tramo de la Via Monumental entre la Via Blanca y la carretera Central, La Haban~~
Zambetakis-Lekkas 1988	Rhapydionina	liburnica	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Chrissovitsi
Zambetakis-Lekkas 1988	Rhapydionina	liburnica	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Myticas-Angelokastro
Zambetakis-Lekkas 1988	Rhapydionina	liburnica	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Kamenitsa

Subalveolina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Barrier & Neumann 1959	Subalveolina	dordonica	Reichel	31	Santonian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien)
Caus & Hottinger 1986	Subalveolina	sp.	%	31	Santonian-Campanian	FRA	EFP	%	Aquitania
Caus & Hottinger 1986	Subalveolina	sp.	%	68	Santonian-Campanian	MEX	CFP	%	Mexico
Dilley 1973	Subalveolina	sp.	Reichel	%	Campanian	%	EFP	%	Southern Europe
Fleury et al. 1985	Subalveolina	sp.	Reichel	31	Santonian-early Campaniar	FRA	EFP	%	Aquitaine
Loeblich & Tappan 1988	Subalveolina	sp.	Reichel	31	late Santonian-Campanian	FRA	EFP	%	France
Loeblich & Tappan 1988	Subalveolina	dordonica	Reichel	31	Campanian	FRA	EFP	384(3-6)	Dordogne, France
Reichel 1936	Subalveolina	dordonica	n. sp.	31	Campanian	FRA	EFP	4(1-4)	Belvès (Dordogne)
Reichel 1953	Subalveolina	pérébaskini	n. sp.	31	Santonian	FRA	EFP	13(1,2); 14(1-7)	Mondihan (Haute Garonne)
Séronie-Vivien 1972	Subalveolina	dordonica	%	31	Campanian	FRA	EFP	%	Ecoute-s'il-pleut (Saint-Germain-de-Belvès)
Séronie-Vivien 1972	Subalveolina	dordonica	%	31	Campanian	FRA	EFP	%	Ecoute-s'il-pleut (Saint-Germain-de-Belvès)
Séronie-Vivien 1972	Subalveolina	dordonica	%	31	Campanian	FRA	EFP	%	Ecoute-s'il-pleut (Saint-Germain-de-Belvès)
Séronie-Vivien 1972	Subalveolina	dordonica	%	31	Campanian	FRA	EFP	%	Ecoute-s'il-pleut (Saint-Germain-de-Belvès)
Séronie-Vivien 1972	Subalveolina	dordonica	%	31	Campanian	FRA	EFP	%	Belvès-Ville
Séronie-Vivien 1972	Subalveolina	dordonica	%	31	Campanian	FRA	EFP	%	Route de Fongauffier (Belvès)

Meandropsina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
Barrier & Neumann 1959	Meandropsina	sp.	%	31	Maastrichtian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien)
~~Brönnimann 1954b~~	~~?Meandropsina~~	~~rutteni~~	~~Palmer~~	~~1~~	~~Maastrichtian~~	~~CUB~~	~~CFP~~	~~%~~	~~Santa Clara (Las Villas) Province, Camagüey Province~~
~~Brönnimann 1954b~~	~~?Meandropsina~~	~~rutteni~~	~~Palmer~~	~~1~~	~~late Cretaceous~~	~~CUB~~	~~CFP~~	~~%~~	~~near Habana~~
~~Brönnimann 1954b~~	~~?Meandropsina~~	~~rutteni~~	~~Palmer~~	~~1~~	~~Middle-late Maastrichtian~~	~~CUB~~	~~CFP~~	~~%~~	~~Cuba~~
Caus & Cornella 1983	Meandropsina	vidali	%	32	Santonian; 82-78 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; bassin S-pyrénéer
Caus & Hottinger 1986	Meandropsina	sp.	%	31/32	Santonian-Campanian	FRA/ESP	EFP	%	Golfo pirenaico
~~Caudri 1944~~	~~?Meandropsina~~	~~rutteni~~	~~Palmer~~	~~68~~	~~Maastrichtian~~	~~MEX~~	~~CFP~~	~~%~~	~~Mexico~~
~~Caudri 1944~~	~~?Meandropsina~~	~~rutteni~~	~~Palmer~~	~~1~~	~~Maastrichtian~~	~~CUB~~	~~CFP~~	~~%~~	~~Cuba~~
Dilley 1973	Meandropsina	sp.	Munier-Chalmas	%	Cenomanian-Maastrichtian	%	%	%	Southern Europe, Middle East
~~Gaetani et al. 1980~~	~~?Meandropsina~~	~~sp.~~	~~%~~	~~73~~	~~late Maastrichtian~~	~~CHN~~	~~ASP~~	~~11(4b)~~	~~Kangi-Chu, Zanskar Range (Ladakh Himalaya)~~
~~Gaetani et al. 1980~~	~~?Meandropsina~~	~~sp.~~	~~%~~	~~73~~	~~late Maastrichtian~~	~~CHN~~	~~ASP~~	~~%~~	~~Kangi-Chu, Zanskar Range (Ladakh Himalaya)~~
Hottinger 1966	Meandropsina	vidali	%	32	Santonian	ESP	EFP	%	Sierra del Montsech
Loeblich & Tappan 1988	Meandropsina	sp.	Munier-Chalmas	32	Senonian	ESP	EFP	%	Spain
~~Loeblich & Tappan 1988~~	~~Meandropsina~~	~~sp.~~	~~Munier-Chalmas~~	~~56~~	~~Senonian~~	~~IRN~~	~~EFP~~	~~%~~	~~Iran~~
Loeblich & Tappan 1988	Meandropsina	vidali	Schlumberger	32	Senonian	ESP	EFP	399(3-7)	Trago di Noguera, Spain

Fleury & Godfriaux 1974	p.151	%	calcaire à débris de Rudistes et de calcaire bréchique à pâte blanche	%
Fleury & Godfriaux 1974	p.151	%	calcaire bleu et noir et de calcaire dolomitique bleu à patine roussâtre	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1985	fig. 4	%	%	%
Fleury et al. 1979	fig. 3	Laffiteina	niveaux blanc où alternent de nouveau dolomies, calcaires "rubannés", parfois bréchique	%
Fleury et al. 1990	%	%	%	%
Gusic & Jelaska 1990	%	%	packstone	keine genaue Lokalität
Gusic & Jelaska 1990	%	%	%	Syn.: Rhipidionina liburnica
Gusic et al. 1988	Fig. 1	Cuneolina	skeletal wackestone; restricted platform, shallow subtidal, probably with fresh-water (brackish) influence	%
Hamaoui & Fourcade 1973	%	%	%	Espèce-type: Peneroplis liburnica Stache
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	Espèce-type: Pavonina liburnica Stache
Hamaoui & Fourcade 1973	%	%	%	Espèce-type: Pavonina liburnica Stache
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
~~Ho et al. 1976~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Ho et al. 1976~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Kalantari 1976~~	~~Fig. 1~~	~~marly limestone~~	~~%~~	~~%~~
~~Kalantari 1976~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
~~Kalantari 1976~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
Landrein et al. 2001	%	%	%	biozone à Murciella
Landrein et al. 2001	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Luperto Sinni 1965	%	Cuneolina	calcare stratigrafico bianco, compatto, a tratti parzialmente dolomitizzato	%
Luperto Sinni 1968	%	Nummofallotia, Dictyopsella, Cuneolina, Rhipidionina, Siderolites	white bedded Rudist limestone; neritic, shallow, temperate-warm	%
Luperto Sinni 1968	%	Nummofallotia, Dictyopsella, Cuneolina, Siderolites	white bedded Rudist limestonewhite bedded Rudist limestone; neritic, shallow, temperate-warm neritic, shallow, temperate-warm	%
Mavrikas et al. 1994	Fig. 1	%	limestones and dolomites; protected lagoonal waters	%
Reichel 1964	%	%	%	%
Sartorio & Venturini 1988	%	%	%	%
~~Seiglie & Ayala-Castanares 1963~~	~~p. 15~~	~~Omphalocyclus, Orbitoides, Lepidorbitoides, Pseudorbitoides, Vaughanina, Sulcoperculin~~	~~Calcirudita a calcarenita, dura, consolidada, color gris clar~~	~~%~~
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%

Subalveolina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Barrier & Neumann 1959	%	Dictyopsella, Nummofallotia cretacea	calcaires assez finement grumeleux	%
Caus & Hottinger 1986	%	%	%	%
Caus & Hottinger 1986	%	%	%	%
Dilley 1973	table II	%	%	%
Fleury et al. 1985	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Reichel 1936	fig. 3	%	calcaire friable, jaune	%
Reichel 1953	%	Lacazina elongata	%	%
Séronie-Vivien 1972	p. 116	%	Calcaire gréseux	%
Séronie-Vivien 1972	p. 116	Dictyopsella, Nummofallotia	Calcaire pelletique à bioclastes, glauconieux	%
Séronie-Vivien 1972	p. 116	%	Calcaire marneux glauconieux	%
Séronie-Vivien 1972	p. 116	%	Calcaire marneux en plaquettes	%
Séronie-Vivien 1972	p. 116	%	Calcaire noduleux, gris, gréseux, glauconieux	%
Séronie-Vivien 1972	p.121	%	Calcaire beige et marnes sableuses	%

Meandropsina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Barrier & Neumann 1959	%	Nummofallotia cretacea, Siderolites	calcaires détritiques plus ou moins gréseux	%
~~Brönnimann 1954b~~	~~%~~	~~Lepidorbitoides, Pseudorbitoides, Orbitoides, Sulcoperculina, Vaughanin~~	~~%~~	~~type species of Ayalaina~~
~~Brönnimann 1954b~~	~~%~~	~~Vaughanina, Sulcoperculina~~	~~%~~	~~type species of Ayalaina~~
~~Brönnimann 1954b~~	~~%~~	~~Vaughanina, Sulcoperculina~~	~~%~~	~~type species of Ayalaina~~
Caus & Cornella 1983	%	Cuneolina, Dictyopsella, Siderolites, Omphalocyclus	%	%
Caus & Hottinger 1986	%	%	%	%
~~Caudri 1944~~	~~%~~	~~Lepidorbitoides~~	~~%~~	~~type species of Ayalaina~~
~~Caudri 1944~~	~~%~~	~~Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, Lepidorbitoides~~	~~%~~	~~type species of Ayalaina~~
Dilley 1973	Table 2	%	%	%
~~Gaetani et al. 1980~~	~~Fig. 1~~	~~Omphalocyclus~~	~~depressed area surrounded by shallow-water complex, poorly oxygenated conditions~~	~~%~~
~~Gaetani et al. 1980~~	~~Fig. 1~~	~~Omphalocyclus~~	~~depressed area surrounded by shallow-water complex, poorly oxygenated conditions~~	~~%~~
Hottinger 1966	Fig. 2	Nummofallotia, Sulcoperculina	calcaires plus ou moins marneux ou détritiques de couleur sombre	%
Loeblich & Tappan 1988	%	%	%	%
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
Loeblich & Tappan 1988	%	%	%	%

~~Renz 1936~~	~~Meandropsina~~	~~vidali~~	~~Schlumberger~~	~~58~~	~~Maestrichtian~~	~~CHE~~	~~EFP~~	~~33(3-6)~~	~~Affermée~~
~~Renz 1936~~	~~Meandropsina~~	~~sp.~~	~~%~~	~~32~~	~~Santonian~~	~~ESP~~	~~EFP~~	~~%~~	~~Trago di Noguera, Catalonien, Spanien~~
~~Renz 1936~~	~~Meandropsina~~	~~sp.~~	~~%~~	~~39~~	~~%~~	~~PRT~~	~~EFP~~	~~%~~	~~Portugal~~
~~Renz 1936~~	~~Meandropsina~~	~~sp.~~	~~%~~	~~31~~	~~Maestrichtian~~	~~FRA~~	~~EFP~~	~~%~~	~~Belvès, Frankreich~~
~~Renz 1936~~	~~?Meandropsina~~	~~n.sp.aff.Nonionina cretacea~~	~~Schlumberger~~	~~58~~	~~Maestrichtian~~	~~CHE~~	~~EFP~~	~~30(3); 31(3); 33(1,2); txtfig. 5b~~	~~Affermée~~
Schlumberger 1898	Meandropsina	vidali	Schlumberger	32	Senonian	ESP	EFP	8(1-3); 9(4-6)	Trago di Noguera
~~Schlumberger 1899~~	~~Meandropsina~~	~~vidali~~	~~Schlumberger~~	~~32~~	~~Santonian~~	~~ESP~~	~~EFP~~	~~8(2), 9(11,14)~~	~~Trago di Noguera~~

Nummofallotia

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Azema et al. 1979	Nummofallotia	cretacea	(Schlumberger)	32	Senonian	ESP	EFP	41(16)	Sierra de Calderón
Barrier & Neumann 1959	Nummofallotia	cretacea	(Schlumberger)	31	Senonian	FRA	EFP	1(1-9); 2(10-16)	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
~~Barrier & Neumann 1959~~	~~Nummofallotia~~	~~cretacea~~	~~(Schlumberger)~~	~~31~~	~~Coniacian~~	~~FRA~~	~~EFP~~	~~%~~	~~Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France~~
Barrier & Neumann 1959	Nummofallotia	cretacea	(Schlumberger)	31	Santonian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Nummofallotia	cretacea	(Schlumberger)	31	Santonian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Nummofallotia	cretacea	(Schlumberger)	31	Campanian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Nummofallotia	cretacea	(Schlumberger)	31	Campanian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Nummofallotia	cretacea	(Schlumberger)	31	Maastrichtian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Nummofallotia	cretacea	(Schlumberger)	31	Maastrichtian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Bignot 1972	Nummofallotia	cretacea	%	63	Senonian	SVN	EFP	%	Coupe de Divaca
Caus & Vicens 1984	Nummofallotia	cretacea	%	32	late Santonian	ESP	EFP	%	La Trilla; Castell de Bac Grillera, Pirineos Catalanes
Caus & Vicens 1984	Nummofallotia	cretacea	%	32	early Campanian	ESP	EFP	%	La Trilla; Castell de Bac Grillera, Pirineos Catalanes
Caus & Vicens 1984	Nummofallotia	cretacea	%	32	Campanian	ESP	EFP	%	La Trilla; Castell de Bac Grillera, Pirineos Catalanes
Dilley 1971	Nummofallotia	sp.	%	%	Senonian	%	EFP	%	Europe
Dilley 1973	Nummofallotia	sp.	Barrier & Neumann	%	Santonian-Maastrichtian	%	EFP	%	southern Europe
Fleury et al. 1985	Nummofallotia	cretacea	(Schlumberger)	%	Santonian-early Campanian	%	EFP	%	western Tethys
Gendrot 1965	Nummofallotia	cretacea	%	31	Santonian	FRA	EFP	5(1)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1965	Nummofallotia	cretacea	(Schlumberger)	31	Santonian	FRA	EFP	14(6)	L'étang de Berre
Gendrot 1965	Nummofallotia	cretacea	(Schlumberger)	31	Santonian	FRA	EFP	14(7)	Sud de l'étang de Caronte
Gendrot 1965	Nummofallotia	cretacea	(Schlumberger)	31	late Santonian	FRA	EFP	14(8)	L'étang de Berre
Gendrot 1965	Nummofallotia	cretacea	%	31	Santonian	FRA	EFP	23(1-3)	Region des Martigues (Bouches-du-Rhone)
Gendrot 1968	Nummofallotia	cretacea	(Schlumberger)	31	Turonian-Santonian	FRA	EFP	10(12-14)	Région des Martigues près Marseille (Bouches-du-Rhône
Gischler et al. 1994	Nummofallotia	sp.	%	32	%	ESP	EFP	40(2)	Basco-Cantrabrian and Iberian basins, N Spain
Gischler et al. 1994	Nummofallotia	sp.	%	32	%	ESP	EFP	40(5)	Basco-Cantrabrian and Iberian basins, N Spain
Gischler et al. 1994	Nummofallotia	sp.	%	32	%	ESP	EFP	40(6)	Basco-Cantrabrian and Iberian basins, N Spain
~~Govda 1964~~	~~Nummofallotia~~	~~malmousteri~~	~~(Hofker)~~	~~44~~	~~Maestrichtian~~	~~IND~~	~~ASP~~	~~%~~	~~Trichinopoly district, near the village of Kallacurchi~~
~~Govda 1964~~	~~Nummofallotia~~	~~sp. nov.~~	~~%~~	~~44~~	~~Maestrichtian~~	~~IND~~	~~ASP~~	~~%~~	~~Trichinopoly district, near the village of Kallacurchi~~
~~Govda 1964~~	~~Nummofallotia~~	~~sp. nov.~~	~~%~~	~~44~~	~~Maestrichtian~~	~~IND~~	~~ASP~~	~~%~~	~~Trichinopoly district, village of Vilangudi~~
Gusic & Jelaska 1990	Nummofallotia	apula	Luperto Sinni	62	Campanian	HRV	EFP	14(6-7)	Island of Brac
Gusic & Jelaska 1990	Nummofallotia	apula	%	62	Maastrichtian	HRV	EFP	20(1)	Island of Brac
Gusic et al. 1988	Nummofallotia	apula	%	62	early Senonian	HRV	EFP	%	Island of Brac
Gusic et al. 1988	Nummofallotia	apula-cretacea	%	62	Campanian	HRV	EFP	%	Island of Brac
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	E.N.C.I. quarry, Lichtenberg section
Hofker 1966	Nummofallotia	cretacea	%	57	%	NLD	EFP	%	Kunrade-chalk
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Albert Canal, cutting of Caster and Vroenhover
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Biebosch
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Windhagen, north of Windhagen
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	cuarry Franssen-Nelissen
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	ce Tombe (37)
Hofker 1966	Nummofallotia	cretacea	%	57	%	NLD	EFP	%	t Rooth (38)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	E.N.C.I. quarry, Lichtenberg section (39)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Well Fortress St. Pieter, drill-hole G.B. 194 (40)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	cuarry van der Zwaan (41)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Valkenburg, municipal grotto (42)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	cuarry Curfs (44)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Keerderberg (45)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	nine shaft Maurits III (49)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	nine shaft Maurits III (56)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Kunrade, Kunderberg (57)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	Welterberg, well I and well II (58)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	crill-hole Rivieren, G.B. 3752 (59)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	shaft I and IV, State Mine Hendrik (60)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	shaft I + II, State mine Emma (62)
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	crill-hole Heisterbrug, S.M. XVIII (63)
~~Hofker 1966~~	~~Nummofallotia~~	~~cretacea~~	~~%~~	~~57~~	~~Paleocene~~	~~NLD~~	~~EFP~~	~~%~~	~~crill-hole Puth, S.M. XVII (64)~~
Hofker 1966	Nummofallotia	cretacea	%	57	Dano-Maestrichtian	NLD	EFP	%	crill-hole Geleen-Centrum, S.M. XVI (66)
Hofker 1967	Nummofallotia	cretacea	(Schlumberger)	32	late Santonian	ESP	EFP	%	Falleresa River, Sierra de Montsech, Lérida
~~Hottinger 1966~~	~~Nummofallotia~~	~~sp.~~	~~%~~	~~32~~	~~Cenomanian-Turonian?~~	~~ESP~~	~~EFP~~	~~%~~	~~Sierra del Montsec~~
Hottinger 1966	Nummofallotia	sp.	%	32	Santonian	ESP	EFP	%	Sierra del Montsech
Loeblich & Tappan 1988	Nummofallotia	sp.	Barrier & Neumann	32	Coniacian-Maastrichtian	ESP	EFP	%	Spain
Loeblich & Tappan 1988	Nummofallotia	sp.	Barrier & Neumann	31	Coniacian-Maastrichtian	FRA	EFP	%	France
Loeblich & Tappan 1988	Nummofallotia	sp.	Barrier & Neumann	57	Coniacian-Maastrichtian	NLD	EFP	%	Netherlands
Loeblich & Tappan 1988	Nummofallotia	cretacea	(Schlumberger)	31	Senonian	FRA	EFP	400(1-4)	Dordogne, France
Loeblich & Tappan 1988	Nummofallotia	cretacea	(Schlumberger)	32	Senonian	ESP	EFP	400(5,6)	Trago di Noguera, Spair
Luperto Sinni 1968	Nummofallotia	apula	n. sp.	35	Maastrichtian	ITA	EFP	1(1,5); 2(2,4)	200 m N of Iazzo Nuovo
Luperto Sinni 1968	Nummofallotia	apula	n. sp.	35	Maastrichtian	ITA	EFP	2(6)	500 m N of Iazzo Nuovo
Luperto Sinni 1968	Nummofallotia	apula	n. sp.	35	Maastrichtian	ITA	EFP	1(3)	Iazzo Nuovc
Luperto Sinni 1968	Nummofallotia	apula	n. sp.	35	Maastrichtian	ITA	EFP	1(2)	Farco Grassaturo
Luperto Sinni 1968	Nummofallotia	apula	n. sp.	35	Maastrichtian	ITA	EFP	1(4,6); 2(1,3,5); 3(1,3,4)	Mass.ia S. Teresa
Luperto Sinni 1968	Nummofallotia	apula	n. sp.	35	Maastrichtian	ITA	EFP	3(2)	rear km 598 on the SS 7 (Appia)
Luperto Sinni 1968	Nummofallotia	apula	n. sp.	35	Maastrichtian	ITA	EFP	3(6)	Mass.ia Don Luca
Luperto Sinni & Ricchetti 1978	Nummofallotia	apula	Luperto Sinni	35	Santonian	ITA	EFP	45(11)	Specchia Tarantina, SE Murgia near Martina Franca (Taranto); Lat. 40°37'24", Long. 4°58'14'
Luperto Sinni & Ricchetti 1978	Nummofallotia	apula	Luperto Sinni	35	Santonian	ITA	EFP	45(12,13)	Specchia Tarantina, SE Murgia near Martina Franca (Taranto); Lat. 40°37'24", Long. 4°58'14'
Mavrikas et al. 1994	Nummofallotia	cretacea	Schlumberger	36	late Maastrichtian	GRC	EFP	%	Ori Valtou
~~McGowran 1968~~	~~Nummofallotia~~	~~sp.~~	~~%~~	~~44~~	~~Maestrichtian~~	~~IND~~	~~ASP~~	~~%~~	~~Trichinopoly district, South India~~
Renz 1936	Meandropsina	vidali	Schlumberger	58	Maestrichtian	CHE	EFP	33(3-6)	Affermée
Renz 1936	?Meandropsina	n.sp.aff.Nonionina cretacea	Schlumberger	58	Maestrichtian	CHE	EFP	30(3); 31(3); 33(1,2); txtfig. 5b	Affermée
Ricchetti & Luperto Sinni 1979	Nummofallotia	apula	Luperto Sinni	35	early Maastrichtian	ITA	EFP	%	Murgia and Peninsular salentina (S Italy)
~~Sartorio & Venturini 1988~~	~~Nummofallotia~~	~~apula~~	~~Luperto Sinni~~	~~56~~	~~late Cenomanian~~	~~IRN~~	~~AFP~~	~~Page 111~~	~~kuh-e Shirom-2 well~~
Sartorio & Venturini 1988	Nummofallotia	sp.	%	35	early Senonian	ITA	EFP	Page 113	Campania
Schlumberger 1899	Nonionina	cretacea	Schlumberger	32	Santonian	ESP	EFP	8(1); 11(21,22)	Trago di Noguera, Spain
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Santonien	FRA	EFP	%	Saintes
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Santonien	FRA	EFP	%	Saintes Chateau d'eau

~~Renz 1936~~	~~p. 545~~	~~%~~	~~dunkelgrauer Kalk~~	~~Nummofallotia~~
~~Renz 1936~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Renz 1936~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Renz 1936~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Renz 1936~~	~~p. 545~~	~~%~~	~~%~~	~~Nummofallotia~~
Schlumberger 1898	p. 336	%	%	genus definition
~~Schlumberger 1899~~	~~%~~	~~%~~	~~%~~	~~Fallotia?~~

Nummofallotia

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Azema et al. 1979	%	%	%	%
Barrier & Neumann 1959	%	%	%	%
~~Barrier & Neumann 1959~~	~~%~~	~~%~~	~~Calcaires détritiques~~	~~%~~
Barrier & Neumann 1959	%	Orbitoides tissoti	calcaires lithoides	%
Barrier & Neumann 1959	%	Dictyopsella, Subalveolina dordonica	calcaires assez finement grumeleux	%
Barrier & Neumann 1959	%	Siderolites	calcaires grumeleux plus ou moins fins	%
Barrier & Neumann 1959	%	Cuneolina, Dictyopsella, Siderolites	calcaires grumeleux plus ou moins gréseux et grossiers	%
Barrier & Neumann 1959	%	Dictyopsella, Siderolites, Orbitoides media	calcaires finement grumeleux	%
Barrier & Neumann 1959	%	Meandropsina, Siderolites	calcaires détritiques plus ou moins gréseux	%
Bignot 1972	Fig. 11	%	Calcaires gris clair	%
Caus & Vicens 1984	%	Dictyopsella	alternancia de microconglomerados rojos y areniscas ocres con matriz limosa	Mächtigkeit konstant, 24 m
Caus & Vicens 1984	%	Dictyopsella	calizas margosas grises	Mächtigkeit 10-25 m
Caus & Vicens 1984	%	Orbitoides	alternancia de areniscas y calcarenitas con margas y limolitas de color gris u ocre	%
Dilley 1971	%	%	%	%
Dilley 1973	Table 2	%	%	%
Fleury et al. 1985	Fig. 2	Dictyopsella kilian	%	%
Gendrot 1965	Fig. 1	%	Calcaire argileux	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1965	Fig. 1	%	%	%
Gendrot 1968	Fig. 1	%	%	%
Gischler et al. 1994	Fig. 1	%	packstone; shallowmarine carbonate ramp	%
Gischler et al. 1994	Fig. 1	%	wackestone; shallowmarine carbonate ramp	%
Gischler et al. 1994	Fig. 1	%	wackestone; shallowmarine carbonate ramp	%
~~Gowda 1964~~	~~Page 305~~	~~Lepidorbitoides, Orbitocyclina, Siderolites~~	~~%~~	~~%~~
~~Gowda 1964~~	~~Page 306~~	~~Lepidorbitoides, Orbitocyclina, Siderolites~~	~~%~~	~~%~~
~~Gowda 1964~~	~~Page 307~~	~~%~~	~~Limestone~~	~~%~~
Gusic & Jelaska 1990	%	%	%	keine genaue Lokalität
Gusic & Jelaska 1990	%	%	wackestone	keine genaue Lokalität
Gusic et al. 1988	Fig. 1	Cuneolina	%	%
Gusic et al. 1988	Fig. 1	Cuneolina	wackestone; back-reef ("lagoon")	%
Hofker 1966	p.81;fig.51,1-7,fig. 52	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.84;fig.53,1-2,fig.95	%	%	%
Hofker 1966	fig.62	%	%	%
Hofker 1966	p.127,figs.75,76	%	%	%
Hofker 1966	p.130;figs.85,1;86	%	%	%
Hofker 1966	p.133;figs.92,93	%	%	%
Hofker 1966	p.158;fig.85,8	%	%	%
Hofker 1966	p.158;fig.51,4,52	%	%	%
Hofker 1966	p.159;figs.96,1;97	%	%	%
Hofker 1966	p.159;figs.96,2;98	%	%	%
Hofker 1966	p.171;fig.99	%	%	%
Hofker 1966	p.172;figs.101,102	%	%	%
Hofker 1966	p.173;figs.103,104	%	%	%
Hofker 1966	p.214	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.272;figs.73.2,123	%	%	%
Hofker 1966	p.274;figs.124,125	%	%	%
Hofker 1966	p.274;fig.126	%	%	%
Hofker 1966	p.275;129	%	%	%
Hofker 1966	p.275;fig.131	%	%	%
Hofker 1966	p.275;fig.132	%	%	%
~~Hofker 1966~~	~~p.275;fig.133~~	~~%~~	~~%~~	~~%~~
Hofker 1966	p.276;fig.135	%	%	%
Hofker 1967	Txt-Fig. 1	%	%	%
~~Hottinger 1966~~	~~Fig. 2~~	~~Cuneolina, Dictyopsella, Lacazina compressa~~	~~calcaires détritiques et des microbrèches~~	~~%~~
Hottinger 1966	Fig. 2	Meandropsina vidali, Sulcoperculina	calcaires plus ou moins marneux ou détritiques de couleur sombre	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Luperto Sinni 1968	Page 96	%	neritic, shallow, temperate-warm	%
Luperto Sinni 1968	Page 96	%	neritic, shallow, temperate-warm	%
Luperto Sinni 1968	Page 96	%	neritic, shallow, temperate-warm	%
Luperto Sinni 1968	Page 96	%	neritic, shallow, temperate-warm	%
Luperto Sinni 1968	Page 96	%	neritic, shallow, temperate-warm	%
Luperto Sinni 1968	Page 96	%	neritic, shallow, temperate-warm	%
Luperto Sinni 1968	Page 96	%	neritic, shallow, temperate-warm	%
Luperto Sinni & Ricchetti 1978	Page 561	Cuneolina sp.	Calcare biomicrito	well
Luperto Sinni & Ricchetti 1978	Page 561	Cuneolina sp.	Calcare biodetritico	well
Mavrikas et al. 1994	Fig. 1		limestones with large rudists; plate-forme externe	%
~~McGowran 1968~~	~~%~~	~~%~~	~~%~~	~~%~~
Renz 1936	p. 545	%	dunkelgrauer Kalk	Nummofallotia
Renz 1936	p. 545	%	%	Nummofallotia
Ricchetti & Luperto Sinni 1979	Fig. 1	Cuneolina sp., Raadshoovenia salentina	%	%
~~Sartorio & Venturini 1988~~	~~%~~	~~%~~	~~%~~	~~well~~
Sartorio & Venturini 1988	%	Cuneolina pavonia	%	Cicerale 1 dir. Well
Schlumberger 1899	%	%	%	type species
Séronie-Vivien 1972	Page 37	Siderolites	Calcaire d'aspect gréseu	%
Séronie-Vivien 1972	Page 37	Siderolites	Calcaire gris beige marneux, d'aspect finement gréseux, à silex	%

Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Santonien	FRA	EFP	%	Les Charriers
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Simeux
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Senté
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Treillis
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Le Maine neuf
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Saint-Palais-du-Né
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Route de Saint-Martial
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Lamérac
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	La Guerie
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Barret
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	La Maison Neuve
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Le Caillaud
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Plage des Nonnes (Meschers-sur-Gironde;
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Santonien	FRA	EFP	%	Puy le Versac (Champagne et Fontaine;
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	La Valade (Saint-Léon-sur-l'Isle)
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Neuvic
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Lalinde Route D 8
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Grande Cote (Saint-Georges-de-Monclard;
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Ecoute-s'il-pleut (Saint-Germain-de-Belvès;
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Ecoute-s'il-pleut (Saint-Germain-de_Belvès;
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Belvès-Ville
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Campanien	FRA	EFP	%	Route de Fongauffier (Belvès)
Séronie-Vivien 1972	Nummofallotia	cretacea	%	31	Maestrichtien	FRA	EFP	%	Route de Villereal (Beaumont-du-Périgord
Sirel 1995	Nummofallotia	sp.	%	38	late Campanian	TUR	EFP	%	Menderler village, NE of Bolu city, NW Turkey
van Gorsel 1973a	Nummofallotia	cretacea	(Schlumberger)	31	late Campanian	FRA	EFP	%	SE of Aubeterre

Orbitoides

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustrations	Site
~~Abramovich et al. 2002~~	~~Orbitoides~~	~~concavatus~~	~~(Rahaghi)~~	~~29~~	%	~~MDG~~	~~AFP~~	~~1(10)~~	~~Berivotra, Mahajanga Basin, Madagascar~~
Abdelghany 2003	Orbitoides	media	(d'Archiac)	23	late Campanian-Maastrichtian	OMN	AFP	%	northern Oman Mountains
Abdelghany 2003	Orbitoides	media	(d'Archiac)	23	late Campanian-Maastrichtian	OMN	AFP	fig.10, 4-6; samples 4,7,8	northern Oman Mountains
Abdelghany 2003	Orbitoides	media	(d'Archiac)	23	late Campanian-Maastrichtian	OMN	AFP	%	northern Oman Mountains
Abdelghany 2003	Orbitoides	apiculata	Schlumberger	23	late Campanian-Maastrichtian	OMN	AFP	fig.10, 3; sample 4	northern Oman Mountains
Arni 1933	Orbitoides	media	(d'Archiac)	36	Maastrichtian	GRC	EFP	%	Pindos
Arni 1933	Orbitoides	apiculata	Schlumberger	36	Maastrichtian	GRC	EFP	%	Pindos
Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	3	late Campanian	MEX	CFP	2(2)	la margen derecha de la Carretera Panamericana, de México a Tuxtla Gutiérrez, ca 3.9 km vor Tuxtla Gutiérrez
Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	3	late Campanian	MEX	CFP	1(1-4); 2(1,3-5)	mismo afloramiento que Muestra Ay-109-57; 5 metros más alta estratigráficamente
Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	3	late Maastrichtian, possibly partially early	MEX	CFP	3(6); 4(6); 5(4,5)	en el camino Viejo entre Ocozocuautla y Ocuilapa, ca. 100 m adelante de la Cruz del Alto de Oculapa; afloramiento en el piso del camino
Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	3	late Maastrichtian, possibly partially early	MEX	CFP	%	afloramiento en el piso del mismo camino, ca. 150 m adelante de la localidad 102 Chis.
Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	3	late Maastrichtian, possibly partially early	MEX	CFP	3(1-5); 4(1,3-5); 5(1-3,6)	afloramiento sobre el piso, ca. 150 m adelante de la localidad Ay-57-57
Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	3	late Maastrichtian, possibly partially early	MEX	CFP	4(2)	afloramiento sobre Carretera Panamericana, 16.2 km antes de llegar a Tuxtla Gutiérrez, Chis.
Azema et al. 1979	Orbitoides	media	d'Archiac	32	Maastrichtian	ESP	EFP	38(1)	Sierra Gorda (Valencia) (Prebetic)
Azema et al. 1979	Orbitoides	media	d'Archiac	32	Maastrichtian	ESP	EFP	40(1)	Sierra Seca (Internal Prebetic)
Azema et al. 1979	Orbitoides	sp.	%	32	Maastrichtian	ESP	EFP	39(1)	Sierra de Arguena (Prebetic)
Barrier & Neumann 1959	Orbitoides	tissoti	Schlumberger	31	Santonian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Orbitoides	media	(d'Archiac)	31	Maastrichtian	FRA	EFP	%	Dordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Baumfalk & van Hinte 1985	Orbitoides	media	(d'Archiac)	31	late Campanian	FRA	EFP	3(a-f)	A 10 Motorway ate Mirambeau (Charente Maritime)
Bignot 1972	Orbitoides	media	(d'Archiac)	63	late Maastrichtian	SVN	EFP	17(3)	Flanc SW du Nanos, entre le Mont Brzin et la Sembijska bajta; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Orbitoides	apiculata	%	63	late Maastrichtian	SVN	EFP	%	Le Nanos; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Orbitoides	media	%	63	Maastrichtian	SVN	EFP	%	Le Sabotin; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Orbitoides	cf. tissoti	%	63	late Senonian or Maastrichtian	SVN	EFP	%	Le site de Postojna; Le Bassin de la Pivka
Bignot 1972	Orbitoides	media	%	63	Maastrichtian	SVN	EFP	%	Les lambeaux de flysch de Kalise, au N. de Postojna;Le Bassin de la Pivka
Bignot & Neumann 1997	Orbitoides	tissoti	Schlumberger	58	Campanian	CHE	EFP	%	Schweiz
Bignot & Neumann 1997	Orbitoides	tissoti	Schlumberger	59	Campanian	AUT	EFP	%	Österreich
Bratu 1975	Orbitoides	media	(d'Archiac)	41	Maastrichtian	ROM	EFP	%	Cuejdiu (Bassin de la Bistrita)
Bratu 1975	Orbitoides	apiculata	%	41	Maastrichtian	ROM	EFP	%	Cuejdiu (Bassin de la Bistrita)
Brönnimann 1954b	Orbitoides	browni	%	1	late Cretaceous	CUB	CFP	%	Cuba
Brönnimann 1954b	Orbitoides	sp.	%	1	Maastrichtian	CUB	CFP	%	Santa Clara (Las Villas) Province; Camagüey Province, Cuba
Brönnimann 1954b	Orbitoides	sp.	%	1	Maastrichtian	CUB	CFP	%	southern Santa Clara
Brönnimann 1954b	Orbitoides	palmeri	%	2	late Cretaceous	USA	CFP	%	Florida (USA)
Brönnimann 1954b	Orbitoides	browni	%	1	Maastrichtian	CUB	CFP	%	Oriente Province
Brönnimann 1954b	Orbitoides	s.s.spp.	%	1	%	CUB	CFP	%	Cuba
Brönnimann 1957	Orbitoides	palmeri	%	2	late Maastrichtian	USA	CFP	%	St. Mary's Oil Corporation, Hilliard Turpentine Company; Florida
Brönnimann 1958b	Orbitoides	sp.	%	2	Cretaceous	USA	CFP	%	Glades County, Florida
Busulini et al. 1984	Orbitoides	media	(d'Archiac)	72	Maastrichtian	ITA	EFP	%	Lanaitto
Busulini et al. 1984	Orbitoides	apiculata	Schlumberger	72	late Maastrichtian	ITA	EFP	%	Lanaitto
Butterlin 1967	Orbitoides	palmeri	Gravell	3	middle or late Maastrichtian	MEX	CFP	%	Forage Mulato No.1 Municipio de Loma Bonita (Etat d'Oaxaca, près de la frontière avec l'État de Vera Cruz)
Butterlin 1967	Orbitoides	palmeri	Gravell	7	Campanian	HTI	CFP	%	Sentier Bois Carré-Fiéfié-Pérodin; 6 km environ au Nord de Bois Carré, altitude 800m; Montagnes Noires; République d'Haiti
Butterlin 1967	Orbitoides	media	(d'Archiac)	36	late Maastrichtian	GRC	EFP	%	du col d'altitude 860m à Kedronas, Grèce
Butterlin 1967	Orbitoides	apiculata	Schlumberger	36	late Maastrichtian	GRC	EFP	%	du col d'altitude 860m à Kedronas, Grèce
Butterlin 1967	Orbitoides	sp. cf. apiculata	Schlumberger	60	late Maastrichtian	MKD	EFP	%	Chemin Kato Gramatikon à Ano Gramatikon, à la cote 1030m (Province d'Édessa, Macédoine)
Butterlin 1981	Orbitoides	apiculata forma jaegeri	Papp & Küpper	68	late Maastrichtian	MEX	CFP	35(3)	Mexico, Caribe
Butterlin 1981	Orbitoides	villasensis	Seiglie & Ayala	68	late Maastrichtian	MEX	CFP	35(6)	Mexico, Caribe
Butterlin 1981	Orbitoides	apiculata browni	(Ellis)	68	late Campanian-Maastrichtian	MEX	CFP	36(1-4)	Mexico, Caribe
Butterlin 1981	Orbitoides	apiculata apiculata	Schlumberger	68	late Maastrichtian	MEX	CFP	36(5-7)	Mexico, Caribe
Butterlin 1981	Orbitoides	media	d'Archiac	68	late Campanian-late Maastrichtian	MEX	CFP	37(1-3)	Mexico, Caribe
Butterlin 1981	Orbitoides	tissoti	Schlumberger	68	late Santonian-late Campanian	MEX	CFP	37(4-8)	Mexico, Caribe
Caudri 1944	Orbitoides	browni	(Ellis)	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1944	Orbitoides	palmeri	Gravell	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1944	Orbitoides	apiculata	Schlumberger	1	Maastrichtian	CUB	CFP	%	Cuba
Caus 1988	Orbitoides	sp.	%	32	Santonian	ESP	EFP	%	Pyrenean basin
Caus 1988	Orbitoides	sp.	%	32	Santonian-Maastrichtian	ESP	EFP	%	Pyrenean basin
Caus & Comella 1983	Orbitoides	hottingeri	%	32	Santonian; ~80-78 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; bassin sud-pyrénéen
Caus & Comella 1983	Orbitoides	douvillei	%	32	Campanian; 78-~77 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; bassin sud-pyrénéen
Caus & Comella 1983	Orbitoides	tissoti	%	32	Campanian; ~77-~74 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; bassin sud-pyrénéen
Caus & Comella 1983	Orbitoides	media	%	32	Campanian; ~74,5-70 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; bassin sud-pyrénéen

Séronie-Vivien 1972	Page 38	Dictyopsella, Siderolites	Calcaire beige blanchatre, avec sile:	%
Séronie-Vivien 1972	Page 44	Dictyopsella	%	%
Séronie-Vivien 1972	Page 45	%	Marne calcaire et calcaire marneux blanchatre	%
Séronie-Vivien 1972	Page 46	%	Marne calcaire	%
Séronie-Vivien 1972	Page 46	%	Calcaire gris blanchatre en bancs avec des silex, alternant avec des niveaux plus tendres	%
Séronie-Vivien 1972	Page 48	Dictyopsella, Siderolites	Calcaire gris blanchatre, marneu:	%
Séronie-Vivien 1972	Page 49	Dictyopsella, Siderolites	Calcaire gris blanchatre	%
Séronie-Vivien 1972	Page 54	Dictyopsella, Siderolites	Calcaire tuffacé beige jaunatre	Zone à Orbitoides media et Pseudorotalia schaub
Séronie-Vivien 1972	Page 54	Dictyopsella, Orbitoides, Siderolites	Calcaire marneux, gris blanchatre, glauconieu:	Zone à Orbitoides media et Goupillaudina daguir
Séronie-Vivien 1972	Page 55	Dictyopsella, Orbitoides, Siderolites	Calcaire jaune, très friable	Zone à Orbitoides media
Séronie-Vivien 1972	Page 56	Orbitoides, Siderolites	Marnes légèrement glauconieuses	Zone à Orbitoides media
Séronie-Vivien 1972	Page 57	Orbitoides, Siderolites	Calcaire marneux blanc jaunatre	Zone à Orbitoides media
Séronie-Vivien 1972	Page 58	Dictyopsella, Orbitoides, Siderolites	Marne calcaire jaune blanchatre	Zone à Orbitoides media
Séronie-Vivien 1972	Page 69	Orbitoides, Siderolites	%	Zone à Orbitoides media et A. monterelensis
Séronie-Vivien 1972	Page 72	Dictyopsella, Orbitoides, Siderolites	Calcaire tuffacé jaune clair	Zone à Orbitoides media
Séronie-Vivien 1972	Page 79	Siderolites	Calcaire gréseux, à bioclastes, gravelles, glauconi	%
Séronie-Vivien 1972	Page 91	Siderolites	Calcaire pelletique, bioclastique, glauconieux, à spicule	%
Séronie-Vivien 1972	Page 94	Dictyopsella, Orbitoides, Siderolites	Calcaire crayeux, blanc, lité, niveaux de sile	Zone à Orbitoides media
Séronie-Vivien 1972	Page 100	%	Calcaire argilopelletique à silex glauconieu	%
Séronie-Vivien 1972	Page 103	Siderolites	Calcaire bioclastique, pelletique, glauconieu:	Zone à A. monterelensis
Séronie-Vivien 1972	Page 116	%	Calcaire marneux, en plaquettes noduleuses	%
Séronie-Vivien 1972	Page 116	Dictyopsella, Subalveolina	Calcaire pelletique à bioclastes, glauconieu:	%
Séronie-Vivien 1972	Page 119	%	Calcaire noduleux, gris, à silex très glauconieu:	%
Séronie-Vivien 1972	Page 121	Dictyopsella	Calcaire pelletique à bioclastes, spicule:	%
Séronie-Vivien 1972	Page 126	Orbitoides	Calcaire bioclastique et graveleu:	Zone à Orbitoides media
Sirel 1995	%	Helicorbitoides, Orbitoides	%	%
van Gorsel 1973a	Fig. 1,2	Lepidorbitoides, Orbitoides, Siderolites	%	%

Orbitoides

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
~~Abramovich et al. 2002~~	~~%~~	~~%~~	~~%~~	~~Probennummer nicht sicher~~
Abdelghany 2003	Fig.1	Loftusia, Omphalocyclus, Lepidorbitoides	limestone, pink limestone	%
Abdelghany 2003	Fig.1	Omphalocyclus, Lepidorbitoides	limestone, pink limestone	%
Abdelghany 2003	Fig.1	Lepidorbitoides	limestone	%
Abdelghany 2003	Fig.1	Sulcoperculina, Siderolites	chalky limestone	%
Arni 1933	%	Siderolites, Lepidorbitoides	%	%
Arni 1933	%	Siderolites, Lepidorbitoides	%	%
Ayala-Castanares 1963	Page 61	Lepidorbitoides, Sulcoperculina, Pseudorbitoides	gravas de color pardo amarillento	ausführliche Lokalität im text
Ayala-Castanares 1963	Page 62	Sulcoperculina, Lepidorbitoides, Pseudorbitoides	gravas de color pardo amarillento	%
Ayala-Castanares 1963	Page 62	Smoutina, Vaughanina, Sulcoperculina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 62	Smoutina, Vaughanina, Sulcoperculina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 63	Smoutina, Vaughanina, Sulcoperculina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 64	Sulcoperculina, Archaeolithothamnium	Calizas arenosas en capas gruesas, de color crema, intemperizan en pardo amarillento	%
Azema et al. 1979	%	%	terrigenous biosparrudite (grainstone) with intraclasts; open platform environment	%
Azema et al. 1979	%	Lepidorbitoides, Siderolites, Sulcoperculina	biomicrorudite (grainstone); open platform environment	%
Azema et al. 1979	%	Sulcoperculina, Siderolites, Lepidorbitoides	terrigenous biomicritic limestone (packstone), irregularly recrystallized; open carbonate platform facies	%
Barrier & Neumann 1959	%	Nummofallotia cretacea	calcaires lithoides	%
Barrier & Neumann 1959	%	Dictyopsella, Siderolites, Nummofallotia cretacea	calcaires finement grumeleux	%
Baumfalk & van Hinte 1985	Fig. 1	%	greyish, glauconitic marls	%
Bignot 1972	Fig. 48, 49	Lepidorbitoides, Omphalocyclus	calcaires gris	%
Bignot 1972	Fig. 48, 49	Lepidorbitoides, Omphalocyclus	calcaires gris	%
Bignot 1972	Fig. 50, 51	Lepidorbitoides, Siderolites	calcaires conglomératiques	%
Bignot 1972	Fig. 58-61	%	calcaires à Rudistes	%
Bignot 1972	Fig. 63, 64	%	calcaires à Rudistes	%
Bignot & Neumann 1997	%	Siderolites	%	Angabe der Paleolatitude
Bignot & Neumann 1997	%	Siderolites	%	Angabe der Paleolatitude
Bratu 1975	%	Lepidorbitoides (minor, socialis)	grès calcaires, marno-calcaires, conglemerats	%
Bratu 1975	%	Lepidorbitoides (minor, socialis)	grès calcaires, marno-calcaires, conglemerats	%
Brönnimann 1954b	%	Vaughanina, ?Meandropsina	%	%
Brönnimann 1954b	%	Lepidorbitoides, Pseudorbitoides, Sulcoperculina, ?Meandropsna	%	%
Brönnimann 1954b	%	Lepidorbitoides, Vaughanina	%	%
Brönnimann 1954b	%	Vaughanina, Pseudorbitoides	%	Core depth: 2985-3000 ft
Brönnimann 1954b	%	Vaughanina, Omphalocyclus, Lepidorbitoides, Sulcoperculina	%	%
Brönnimann 1954b	%	Sulcoperculina, Omphalocyclus	%	%
Brönnimann 1957	%	Vaughanina, Sulcoperculina	%	Core depth: 2985-3000 ft
Brönnimann 1958b	Page 429	Sulcoperculina, Pseudorbitoides, Lepidorbitoides, Vaughanina	cream white microcoquinoid calcilutite	well cutting, Coastal Petroleum Company No.1, T 42 s - R33 E - Sec. 25; Depth: below 5800 ft
Busulini et al. 1984	fig. 2	%	%	%
Busulini et al. 1984	fig. 2	Siderolites calcitrapoides, Clypeorbis mamillata, Lepidorbitoides soicalis	%	%
Butterlin 1967	%	Vaughanina, Sulcoperculina	%	Depth: 851,3-854,4m; (=O. tissoti Schlumberger?)
Butterlin 1967	%	Sulcoperculina	%	(=O. tissoti Schlumberger?)
Butterlin 1967	%	Sulcoperculina, Omphalocyclus, Lepidorbitoides, Siderolites	%	%
Butterlin 1967	%	Sulcoperculina, Omphalocyclus, Lepidorbitoides, Siderolites	%	%
Butterlin 1967	%	Lepidorbitoides, Sulcoperculina, Siderolites	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Caudri 1944	%	Lepidorbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina	%	%
Caudri 1944	%	Lepidorbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina	%	%
Caudri 1944	%	Lepidorbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina	%	%
Caus 1988	%	%	Carbonate platform, protected shelf, 0-60 m	%
Caus 1988	%	%	Terrigeneous platform, restricted shelf to open marine shelf	%
Caus & Cornella 1983	%	Cuneolina, Dictyopsella, Meandropsina	%	%
Caus & Cornella 1983	%	Cuneolina	%	%
Caus & Cornella 1983	%	Cuneolina, Dictyopsella, Meandropsina	%	%
Caus & Cornella 1983	%	Cuneolina, Dictyopsella, Siderolites	%	%

Caus & Hottinger 1986	Orbitoides	sp.	%	%	Santonian-Campanian	%	%	%		ormas cosmopolitas
Caus & Vicens 1984	Orbitoides	tissoti	%	32	Campanian	ESP	EFP	fig. 5		La Trilla; Castell de Bac Grillera, Pirineos Catalanes
Caus et al. 1996	Orbitoides	sp.	%	%	Maastrichtian	%	%	1(1)	%	
Caus et al. 1996	Orbitoides	sp.	%	%	Campanian	%	%	1(2)	%	
Caus et al. 1996	Orbitoides	sp.	%	%	%	%	CFP	1(3)		America
Caus et al. 1996	Orbitoides	sp.	%	%	%	%	%	2(1)	%	
Caus et al. 1996	Orbitoides	gensacicus	%	%	%	%	%	2(2)	%	
Caus et al. 1996	Orbitoides	sp.	%	%	%	%	%	2(4)	%	
Caus et al. 1996	Orbitoides	sp.	%	38	Maastrichtian	TUR	EFP	%		¨urkey
Caus et al. 1996	Orbitoides	hottingeri	van Hinte	32	late Santonian	ESP	EFP	%		Font de les Bagasses, Sierra del Montsec (Lleida, Spain)
Caus et al. 1996	Orbitoides	douvillei	(Silvestri)	31	early Campanian	FRA	EFP	%		Belvès (France)
Caus et al. 1996	Orbitoides	tissoti	(Schlumberger)	16	Campanian	DZA	AFP	%		Oued el Arab (Kenchela, Algeria)
Caus et al. 1996	Orbitoides	megaloformis	Papp & Küpper	59	late Campanian	AUT	EFP	%		Pemberger, Carinthia (Austria)
Caus et al. 1996	Orbitoides	megaloformis	Papp & Küpper	32	late Campanian	ESP	EFP	%		Southern-Pyrenees
Caus et al. 1996	Orbitoides	gruenbachensis	Papp	59	early Maastrichtian	AUT	EFP	%		Gruenbach, Niederösterreich
Caus et al. 1996	Orbitoides	apiculata	Schlumberger	57	late Maastrichtian	NLD	EFP	%		Maastricht
Caus et al. 1996	Orbitoides	apiculata	Schlumberger	31	late Maastrichtian	FRA	EFP	%		Maurens
Caus et al. 1996	Orbitoides	gensacicus	(Leymerie)	31	late Maastrichtian	FRA	EFP	%		Gensac
Caus et al. 1996	Orbitoides	hottingeri	%	32	%	ESP	EFP	3(1-7)		southern Pyrenees
Caus et al. 1996	Orbitoides	douvillei	%	31	%	FRA	EFP	3(8-11)		Belvès (France)
Caus et al. 1996	Orbitoides	douvillei	%	32	%	ESP	EFP	3(12-14)		southern Pyrenees
Caus et al. 1996	Orbitoides	tissoti	%	31	%	FRA	EFP	3(15-16)		Aubeterre
Caus et al. 1996	Orbitoides	tissoti	%	31	%	FRA	EFP	3(17-18)		Meschers
Caus et al. 1996	Orbitoides	tissoti	%	32	%	ESP	EFP	3(19-21)		southern Pyrenees
Caus et al. 1996	Orbitoides	media	%	31	%	FRA	EFP	3(22-23)		Aubeterre
Caus et al. 1996	Orbitoides	media	%	31	%	FRA	EFP	3(24-25)		Meschers
Caus et al. 1996	Orbitoides	media	%	32	%	ESP	EFP	3(26-27)		southern Pyrenees
Caus et al. 1996	Orbitoides	megaloformis	%	31	%	FRA	EFP	3(28-29)		Aubeterre
Caus et al. 1996	Orbitoides	megaloformis	%	32	%	ESP	EFP	3(30-32)		southern Pyrenees
Caus et al. 1996	Orbitoides	gruenbachensis	%	31	%	FRA	EFP	3(33-34)		Maurens
Caus et al. 1996	Orbitoides	gruenbachensis	%	32	%	ESP	EFP	3(35-39)		southern Pyrenees
Caus et al. 1996	Orbitoides	apiculata	%	57	%	NLD	EFP	3(40-41)		Maastricht
Caus et al. 1996	Orbitoides	apiculata	%	31	%	FRA	EFP	3(42-45)		Northern Pyrenees
Caus et al. 2002	Orbitoides	sp.	%	52	middle-late Campanian	MEX	CFP	%		Cárdenas Basin; San Luis Potosí, NE Mexico
Cox 1937	Orbitoides	apiculata	%	56	%	IRN	EFP	%		Iran
Cox 1937	Orbitoides	cf. media	%	56	%	IRN	EFP	%		Iran
Cox 1937	Orbitoides	apiculata	%	56	%	IRN	EFP	%		Bavara, Province of Kirmanshah
Cox 1937	Orbitoides	cf. media	%	56	%	IRN	EFP	%		Bavara, Province of Kirmanshah
Cox 1937	Orbitoides	cf. media	%	56	late Cretaceous	IRN	EFP	%		Kuh-i-Abbagh, Bakhtiari Country
De Castro 1990	Orbitoides	media?	(d'Archiac)	35	early Maastrichtian (or late Campanian?)	ITA	EFP	30(1-7,9-10)		Cava a Nord di Vitigliano, Lecce
De Castro 1990	Orbitoides	sp.	%	35	early Maastrichtian (or late Campanian?)	ITA	EFP	30(8)		Cava a Nord di Vitigliano, Lecce
De Castro 1990	Orbitoides	media?	%	35	early Maastrichtian (or late Campanian?)	ITA	EFP	pl. 33		Cava a Nord di Vitigliano, Lecce
De Castro 1990	Orbitoides	media?	%	35	early Maastrichtian (or late Campanian?)	ITA	EFP	pl. 34		Cava a Nord di Vitigliano, Lecce
De Castro 1990	Orbitoides	media	%	16	late Campanian-Maastrichtian	DZA	AFP	%		Algeria orientale
De Castro 1990	Orbitoides	media	%	20	late Campanian-Maastrichtian	EGY	AFP	%		Egitto
De Castro 1990	Orbitoides	media	%	18	late Campanian	LBY	AFP	%		Hamada al Hamra, Libia
De Castro 1990	Orbitoides	media	%	%	late Campanian	%	CFP	%		America
De Castro 1990	Orbitoides	media	%	1	late Campanian-early Maastrichtian	CUB	CFP	%		Cuba
De Castro 1990	Orbitoides	media	%	3	Maastrichtian	MEX	CFP	%		Region di Chiapas
De Castro 1990	Orbitoides	media	%	48	%	CHN	ASP	%		¨ibet, China
De Castro 1990	Orbitoides	media	%	%	%	IND	ASP	%		India
De Castro 1990	Orbitoides	media	%	56	Maastrichtian	IRN	EFP	%		Iran
De Castro 1990	Orbitoides	media	%	56	late Maastrichtian	IRN	EFP	%		Iran
De Castro 1990	Orbitoides	media	%	38	late Campanian - late Maastrichtian	TUR	EFP	%		¨urkey
De Castro 1990	Orbitoides	media	%	38	early-late Maastrichtian	TUR	EFP	%		Domuz Dag, Turkey
De Castro 1990	Orbitoides	media	%	38	Maastrichtian	TUR	EFP	%		Zona di Cide
De Castro 1990	Orbitoides	media	%	38	late Maastrichtian	TUR	EFP	%		Region di Haymana Polatli
De Castro 1990	Orbitoides	media	%	59	Campanian-early Maastrichtian	AUT	EFP	%		Austria
De Castro 1990	Orbitoides	media	%	41	late Maastrichtian	ROM	EFP	%		Carpazi occidentali
De Castro 1990	Orbitoides	media	%	41	late Campanian - late Maastrichtian	ROM	EFP	%		Carpazi occidentali
De Castro 1990	Orbitoides	media	%	31	late Campanian - early Maastrichtian	FRA	EFP	%		Aquitania settentrionale, France
De Castro 1990	Orbitoides	media	%	31	late Maastrichtian	ESP/FRA	EFP	%		Pirenei orientali
De Castro 1990	Orbitoides	media	%	36	late Campanian - late Maastrichtian	GRC	EFP	%		zona di Gavrovo-Tripolitza, Grecia
De Castro 1990	Orbitoides	media	%	36	Maastrichtian	GRC	EFP	%		Zona di laghi di Tebe, Grecia
De Castro 1990	Orbitoides	media	%	36	Maastrichtian	GRC	EFP	%		zona di Gavrovo-Tripolitza, Grecia
De Castro 1990	Orbitoides	media	%	35	Maastrichtian	ITA	EFP	%		Appennino settentrionale, Italia
De Castro 1990	Orbitoides	media	%	35	Campanian-Maastrichtian	ITA	EFP	%		Appennino centro-meridionale, Italia
De Castro 1990	Orbitoides	media	%	35	late Campanian	ITA	EFP	%		Murge, Italy
De Castro 1990	Orbitoides	media	%	35	Maastrichtian	ITA	EFP	%		Lazio, Italy
De Castro 1990	Orbitoides	media	%	34	late Campanian	ITA	EFP	%		Sicily
De Castro 1990	Orbitoides	media	%	63	Maastrichtian	SVN	EFP	%		Slovenia, Iugoslavia
De Castro 1990	Orbitoides	media	%	37	Campanian-Maastrichtian	YUG	EFP	%		piana di Zeta-Skadar, Iugoslavia
De Castro 1990	Orbitoides	media	%	57	late Maastrichtian	NLD	EFP	%		Limbourg, Netherlands
De Castro 1990	Orbitoides	media	%	32	Campaniano sommitale al Maastrichtiano sup.	ESP	EFP	%		Pirenei orientali, Spagna
De Castro 1990	Orbitoides	media	%	32	Campaniano inf. Alla base del Maastrichtiano inf.	ESP	EFP	%		Sierre di Montsech e Marginali, Spagna
De Castro 1990	Orbitoides	media	%	32	early Campanian - late Maastrichtian	ESP	EFP	%		Prebetico orientale, Spagna
De Castro 1990	Orbitoides	media	%	32	sommità del Campaniano a tutto il Maastrichtiano	ESP	EFP	%		provincia di Valencia, Spagna
De Castro 1990	Orbitoides	media	%	32	Maastrichtian	ESP	EFP	%		regione cantabrica orientale, Spagna
De Castro 1990	Orbitoides	media	%	32	early Campanian - late Maastrichtian	ESP	EFP	%		Pirenei meridionali, Spagna
De Castro 1990	Orbitoides	media	%	56	parte inferiore del Campaniano sup.	CHE	EFP	%		Mendrisiotto, Svizzera
Dilley 1973	Orbitoides	sp.	d'Orbigny	%	Campanian-Maastrichtian	%	%	%		N America, Central America, Europe, N Africa, Middle East, S USSR, India, E Indies
Drooger 1984	Orbitoides	sp.	%	31	Campanian	FRA	EFP	1(11,12)		France
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	57	Dordonian	NLD	EFP	(1-5)		Maastricht
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	31	Dordonian	FRA	EFP	(1-5)		France
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	34	Late Cretaceous	ITA	EFP	(6-7)		Sicily
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	34	Late Cretaceous	ITA	EFP	(8-11)		Sicily
~~Ellis & Messina 1967~~	~~Orbitoides~~	~~apiculatus~~	~~Schlumberger~~	~~42~~	~~Lutetian~~	~~RUS~~	~~EFP~~	~~(12)~~		~~Georgia, USSR~~
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	34	Late Cretaceous	ITA	EFP	(13-14)		Sicily
~~Ellis & Messina 1967~~	~~Orbitoides~~	~~apiculatus~~	~~Schlumberger~~	~~35~~	~~Eocene~~	~~ITA~~	~~EFP~~	~~(15-16)~~		~~Brianza, Italy~~
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	18	Maastrichtian	SYR	AFP	(17)		Ordou, Syria
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	58	Maastrichtian	CHE	EFP	(18,19)		Switzerland
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	35	Maastrichtian	ITA	EFP	(20)		Apennines, Italy

Caus & Hottinger 1986	%	%	%	%
Caus & Vicens 1984	%	Nummofallotia	alternancia de areniscas y calcarenitas con margas y limolitas de color gris u ocre	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	Page 130	Lacazina	%	Syn.: Monolepidorbis dordoniensis
Caus et al. 1996	Page 130	%	%	Syn.: Linderina? douvillei, Monolepidorbis sanctae pelagiae var. densa, Orbitoides tissoti
Caus et al. 1996	Page 130	%	%	Syn.: Orbitella tissoti, Monolepidorbis sanctae-pelagiae var. vacuolaris
Caus et al. 1996	Page 132	Lepidorbitoides, Sirtina	%	Syn.: Orbitoides media megaloformis
Caus et al. 1996	Page 132	Lepidorbitoides, Sirtina	%	Syn.: Orbitoides media megaloformis
Caus et al. 1996	Page 132	%	%	Syn.: Orbitoides apiculata gruenbachensis, Orbitoides apiculata
Caus et al. 1996	Page 132	Siderolites, Omphalocyclus, Lepidorbitoides	%	%
Caus et al. 1996	Page 132	Siderolites, Omphalocyclus, Lepidorbitoides	%	%
Caus et al. 1996	Page 134	Siderolites, Lepidorbitoides	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 1996	%	%	%	%
Caus et al. 2002	Page 138	Lepidorbitoides, Sulcoperculina, Vaughanina	interbedded silty limestone and argillaceous marl, intercalations of limestone rich in rudists or other molluscs; open marine environment with terrigenous input	frequently fragmented
Cox 1937	%	Loftusia, Omphalocyclus, Siderolites, Orbitoides	%	%
Cox 1937	%	Loftusia, Omphalocyclus, Siderolites, Orbitoides	%	%
Cox 1937	%	Loftusia, Omphalocyclus	%	Core depth: 800-2230 ft
Cox 1937	%	Loftusia, Omphalocyclus	%	Core depth: 2690-3040 ft
Cox 1937	%	Omphalocyclus, Siderolites	%	%
De Castro 1990	%	%	%	%
De Castro 1990	%	%	%	%
De Castro 1990	%	Raadshoovenia, Cuneolina	white limestone with micrite and some sparite, grain-supported (packstone-grainstone)	%
De Castro 1990	%	Raadshoovenia, Cuneolina	white limestone with micrite and some sparite, grain-supported (packstone-grainstone)	%
De Castro 1990	%	%	%	%
De Castro 1990	%	%	%	%
De Castro 1990	%	%	%	%
De Castro 1990	%	%	%	%
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De Castro 1990	%	%	%	%
De Castro 1990	%	%	%	%
De Castro 1990	%	%	%	%
De Castro 1990	%	%	%	%
Dilley 1973	Dilley 1973: table II	%	%	%
Drooger 1984	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
~~Ellis & Messina 1967~~	~~%~~	~~%~~	~~%~~	~~%~~
Ellis & Messina 1967	%	%	%	%
~~Ellis & Messina 1967~~	~~%~~	~~%~~	~~%~~	~~%~~
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%

Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	35	Late Cretaceous	ITA	EFP	(21)	Monte Conero, Italy
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	31	Campanian	FRA	EFP	(22)	France
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	57	Maastrichtian	NLD	EFP	(23)	Maastricht
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	1	Maastrichtian	CUB	CFP	(25,26)	Cuba
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	31	Maastrichtian	FRA	EFP	(27-34)	France
Ellis & Messina 1967	Orbitoides	apiculatus	Schlumberger	57	Maastrichtian	NLD	EFP	(27-34)	Holland
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	31	Dordonian	FRA	EFP	(1-5)	Haute-Garonne
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	34	Cretaceous	ITA	EFP	(6)	Sicily
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	34	Cretaceous	ITA	EFP	(7)	Sicily
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	34	Late Cretaceous	ITA	EFP	(8-15)	Palermo
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	35	Maastrichtian	ITA	EFP	(16)	Apennines, Italy
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	58	Maastrichtian	CHE	EFP	(17)	Switzerland
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	35	Maastrichtian	ITA	EFP	(18-20)	Apennines, Italy
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	36	Maastrichtian	GRC	EFP	(21)	Lake Hyliki
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	31	Maastrichtian	FRA	EFP	(22-24)	France
Ellis & Messina 1967	Orbitoides	gensacicus	(Leymerie)	31	Maastrichtian	FRA	EFP	(26)	Haute-Garonne
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	57	%	NLD	EFP	(1-3)	Maastricht
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	31	Dordonian	FRA	EFP	(4-10)	France
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	34	Cretaceous	ITA	EFP	(11)	Sicily, Palermo
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	34	Cretaceous	ITA	EFP	(12-13)	Sicily
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	34	Late Cretaceous	ITA	EFP	(14-17)	Palermo
~~Ellis & Messina 1967~~	~~Orbitoides~~	~~medius~~	~~(d'Archiac)~~	~~42~~	~~Lutetian~~	~~%~~	~~%~~	~~(18-19)~~	~~Georgia, USSR~~
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	48	Late Campanian	CHN	ASP	(20-22)	Central Tibet
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	46	Late Cretaceous	PAK	ASP	(23)	Baluchistan
~~Ellis & Messina 1967~~	~~Orbitoides~~	~~medius~~	~~(d'Archiac)~~	~~35~~	~~Early Eocene~~	~~ITA~~	~~EFP~~	~~(24)~~	~~Capitanata~~
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	36	Late Cretaceous	GRC	EFP	(25-30)	Thessaly
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	28	Maastrichtian	SYR	AFP	(31)	N'Gara, Syria
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	35	Maastrichtian	ITA	EFP	(32-33)	Bergamo
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	35	Late Cretaceous-Middle Eocene	ITA	EFP	(34)	Central Apennines
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	35	Maastrichtian	ITA	EFP	(35)	Umbria
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	58	Maastrichtian	CHE	EFP	(36-38)	Switzerland
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	35	Maastrichtian	ITA	EFP	(39-41)	Apennines, Italy
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	31	Campanian	ESP	EFP	(42)	N Spain
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	35	Late Cretaceous	ITA	EFP	(43-45)	Monte Conero, Italy
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	38	Maastrichtian	TUR	EFP	(46)	Bursa
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	36	Maastrichtian	GRC	EFP	(47-48)	Lake Hyliki
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	2	Campanian or Maastrichtian	USA	CFP	(49-50)	Florida (USA)
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	31	Maastrichtian	FRA	EFP	(51-59)	France
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	46	Maastrichtian	PAK	ASP	(60)	Baluchistan, W. Pakistan
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	57	Maastrichtian	NLD	EFP	(61-69)	Netherlands
Ellis & Messina 1967	Orbitoides	medius	(d'Archiac)	31	Maastrichtian	FRA	EFP	(61-69)	France
Ellis & Messina 1967	Orbitoides	palmeri	Gravell	1	Late Cretaceous	CUB	CFP	(1-10)	Havana Province
Ellis & Messina 1967	Orbitoides	palmeri	Gravell	1	Late Cretaceous	CUB	CFP	(11-12)	Camaguey, Cuba
Ellis & Messina 1967	Orbitoides	palmeri	Gravell	2	Late Cretaceous	USA	CFP	(13)	Nassau County, Florida
Ellis & Messina 1967	Orbitoides	palmeri	Gravell	10	Maastrichtian	VEN	CFP	(14-16)	Aragua, Venezuela
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	16	Late Cretaceous, Senonian?	DZA	AFP	(1-5)	Constantine, Algeria
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	35	Senonian	ITA	EFP	(6)	S Cesarea
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	35	Late Cretaceous	ITA	EFP	(7)	Monte Conero, Italy
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	(8-9)	Cuba
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	16	Santonian-Campanian	DZA	AFP	(10-24)	Algeria
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	17	Santonian-Campanian	TUN	AFP	(10-24)	Tunisia
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	31	Santonian-Campanian	FRA	EFP	(10-24)	France
Ellis & Messina 1967	Orbitoides	tissoti	Schlumberger	51	Santonian? Campanian	PNG	ASP	(25-27)	New Guinea
Ferrández-Canadell 2000	Orbitoides	apiculata	Schlumberger	57	Maastrichtian	NLD	EFP	%	Ency Quarry, Maastricht
Ferrández-Canadell 2000	Orbitoides	gruenbachensis	Papp	57	Maastrichtian	NLD	EFP	%	Ency Quarry, Maastricht
Ferrández-Canadell 2000	Orbitoides	sp.	%	57	Maastrichtian	NLD	EFP	4(10)	Ency Quarry, Maastricht
Fleury 1977	Orbitoides	media	%	36	late Cretaceous	GRC	EFP	%	coupe de Vitina, Griechenland
Fleury et al. 1985	Orbitoides	sp.	%	%	Maastrichtian	%	CFP	%	Caribbean
Fleury et al. 1985	Orbitoides	sp.	%	51	Maastrichtian	PNG	ASP	%	Nouvelle-Guinee
Fleury et al. 1985	Orbitoides	sp.	%	%	Maastrichtian	%	EFP	%	southern Europe
Fleury et al. 1985	Orbitoides	sp.	%	%	Maastrichtian	%	AFP	%	northern Africa
Fleury et al. 1985	Orbitoides	sp.	%	%	Maastrichtian	%	AFP	%	I Arabie
Fleury et al. 1985	Orbitoides	sp.	%	48	Maastrichtian	CHN	ASP	%	Tibet
Fleury et al. 1985	Orbitoides	sp.	%	70	Maastrichtian	MMR	ASP	%	Birma
Fleury et al. 1990	Orbitoides	sp.	%	36	%	GRC	EFP	%	Mont Valtou, massif du Gavrovo
Fleury et al. 1990	Orbitoides	sp.	%	36	%	GRC	EFP	pl., fig.a	Mont Valtou, massif du Gavrovo
Fleury et al. 1990	Orbitoides	sp.	%	35	%	ITA	EFP	%	Monts Lépini, Italie méridionale
Fleury et al. 1990	Orbitoides	media and/or apiculatus	%	38	%	TUR	EFP	%	Turquie centrale
Fleury et al. 1990	Orbitoides	media and/or apiculatus	%	37	%	YUG	EFP	%	Serbie occidentale
Fleury et al. 1990	Orbitoides	media and/or apiculatus	%	36	%	GRC	EFP	%	Mont Kassidaris, Grèce orientale
Fleury et al. 1990	Orbitoides	media and/or apiculatus	%	28	%	SYR	AFP	%	Syrie
Fleury et al. 1990	Orbitoides	sp.	%	27	%	IRQ	EFP	%	northern Iraq
Fleury et al. 1990	Orbitoides	media and/or apiculatus	%	24	Maastrichtian	QAT	AFP	%	Qatar
Fleury et al. 1990	Orbitoides	media and/or apiculatus	%	25	Maastrichtian	YEM	AFP	%	Yémen
Fleury et al. 1990	Orbitoides	media and/or apiculatus	%	26	Maastrichtian	SOM	AFP	%	Somalie
Gischler et al. 1994	Orbitoides	tissoti	%	32	early Campanian	ESP	EFP	%	Losa Valley
Goldbeck unpubl.	Orbitoides	sp.	%	32	Santonian	ESP	EFP	%	Tremp area
Görmüs 1999	Orbitoides	sp.	%	38	early-Middle Maastrichtian	TUR	EFP	%	Hasanlikaya location, 10-15 km SW Hekimhan town center
Grossouvre 1904	Orbitoides	apiculata	%	57	Cretaceous	NLD	EFP	%	Maastricht
~~Grossouvre 1904~~	~~Orbitoides~~	~~minor~~	~~%~~	~~57~~	~~Cretaceous~~	~~NLD~~	~~EFP~~	~~%~~	~~Maastricht~~
Grossouvre 1904	Orbitoides	media	%	31	late Campanian	FRA	EFP	%	Aquitaine
Grossouvre 1904	Orbitoides	apiculata	%	31	%	FRA	EFP	%	Maurens
Grossouvre 1904	Orbitoides	gensacica	%	31	Cretaceous	FRA	EFP	%	Audignon; Haute Garonne
~~Grossouvre 1904~~	~~Orbitoides~~	~~ocialis~~	~~%~~	~~31~~	~~Cretaceous~~	~~FRA~~	~~EFP~~	~~%~~	~~Audignon; Haute Garonne~~
Grossouvre 1904	Orbitoides	minor	%	31	Cretaceous	FRA	EFP	%	Roquefort, Laudiras, Villagrains
~~Grossouvre 1904~~	~~Orbitoides~~	~~mamillata~~	~~%~~	~~31~~	~~Cretaceous~~	~~FRA~~	~~EFP~~	~~%~~	~~Roquefort, Laudiras, Villagrains; Haute Garonne~~
Grossouvre 1904	Orbitoides	apiculata	%	31	Cretaceous	FRA	EFP	%	Haute-Garonne
Grossouvre 1904	Orbitoides	media	%	31	Cretaceous	FRA	EFP	%	Haute-Garonne
Gunter et al. 2002	Orbitoides	megaloformis	Papp & Küpper	6	late Maastrichtian	JAM	CFP	1(7)	9 m below the top of the Maldon Limestone, alongside a minor road ca. 78 m of the junction at Maroon Town, Parish of St James; W Jamaica
Gunter et al. 2002	Orbitoides	megaloformis	%	6	%	JAM	CFP	%	Logie Green, in the Central Inlier, central Jamaica
Gusic & Jelaska 1990	Orbitoides	cf. hottingeri	%	62	Campanian	HRV	EFP	11(4)	Brac Island
Gusic & Jelaska 1990	Orbitoides	tissoti	%	62	Campanian	HRV	EFP	12(2)	Brac Island
Gusic & Jelaska 1990	Orbitoides	tissoti	%	62	Campanian	HRV	EFP	12(4)	Brac Island

Ellis & Messina 1967	%		%		%
Ellis & Messina 1967	%		%		%
Ellis & Messina 1967	%		%		%
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Ellis & Messina 1967	%		%	%	%
Ellis & Messina 1967	%		%	%	%
Ellis & Messina 1967	%		%	%	%
Ferràndez-Canadell 2000	%		%	%		%
Ferràndez-Canadell 2000	%		%	%		%
Ferràndez-Canadell 2000	%		%	%		%
Fleury 1977	fig. 1	Lepidorbitoides		%		%
Fleury et al. 1985	Page 760		%	%		%
Fleury et al. 1985	Page 760		%	%		%
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Fleury et al. 1990	%		%	%		%
Fleury et al. 1990	%		%	%		%
Fleury et al. 1990	%		%	%		%
Fleury et al. 1990	%	Siderolites, Omphalocyclus, Lepidorbitoides		%		%
Fleury et al. 1990	%	Siderolites, Omphalocyclus, Lepidorbitoides, Loftusia		%		%
Fleury et al. 1990	%	Siderolites, Omphalocyclus, Lepidorbitoides		%		%
Fleury et al. 1990	%	Siderolites, Omphalocyclus, Lepidorbitoides, Loftusia		%		%
Fleury et al. 1990	%	Loftusia, Omphalocyclus		%		%
Fleury et al. 1990	%	Siderolites, Omphalocyclus, Lepidorbitoides		%		%
Fleury et al. 1990	%	Siderolites, Omphalocyclus, Lepidorbitoides		%		%
Fleury et al. 1990	%	Siderolites, Omphalocyclus, Lepidorbitoides		%		%
Gischler et al. 1994	Fig. 1		%	shallowmarine carbonate ramp		%
Goldbeck unpubl.	%		%	%		%
Görmüs 1999	%	Siderolites		%		%
Grossouvre 1904	%	Omphalocyclus		%		%
~~Grossouvre 1904~~	~~%~~	~~Omphalocyclus~~		~~%~~		~~%~~
Grossouvre 1904	%		%	%		%
Grossouvre 1904	%		%	%		%
Grossouvre 1904	%	Omphalocyclus		%		%
~~Grossouvre 1904~~	~~%~~	~~Omphalocyclus~~		~~%~~		~~%~~
Grossouvre 1904	%	Omphalocyclus		%		%
~~Grossouvre 1904~~	~~%~~	~~Omphalocyclus~~		~~%~~		~~%~~
Grossouvre 1904	%	Omphalocyclus		%		%
Grossouvre 1904	%		%	%		%
Gurter et al. 2002	Page 150	Omphalocyclus		shallowtropical sea, close to active volcanoes of a Cretaceous island-arc complex		%
Gurter et al. 2002	Krijnen et al. 1993: figs 22-6,7		%	%		%
Gusic & Jelaska 1990	%		%	%	keine genaue Lokalität	
Gusic & Jelaska 1990	%		%	bioclastic packstone, Brac Marbles	keine genaue Lokalität	
Gusic & Jelaska 1990	%		%	mudstrone-wackestone, silt-sized matrix	keine genaue Lokalität	

Gusic & Jelaska 1990	Orbitoides	douvillei	%	62	Campanian	HRV	EFP	12(5)		environs of Povlja
Gusic & Jelaska 1990	Orbitoides	tissoti	%	62	Campanian	HRV	EFP	12(6)		Brac Island
Gusic et al. 1988	Orbitoides	tissoti	%	62	middle-late Campanian	HRV	EFP	2(9)		Island of Brac
Gusic et al. 1988	Orbitoides	hottingeri - douvillei	%	62	late Santonian-early Campanian	HRV	EFP	%		Island of Brac
Hagn 1971	Orbitoides	medius planiformis	Papp	33	late Campanian	DEU	EFP	4(1)		Geröll aus der Subalpinen Molasse; Blaue Wand, Traun-Profil S Traunstein
Hagn 1971	Orbitoides	sp.	%	33	late Campanian	DEU	EFP	%		Geröll aus der Subalpinen Molasse; Geröll von Almagmach, SW Immenstadt, Allgäu
Hanzawa 1962	Orbitoides	media	(d'Archiac)	57	%	NLD	EFP	1(46-52)		Maastricht, Netherlands
Hanzawa 1962	Orbitoides	media	(d'Archiac)	31	%	FRA	EFP	4(7); 5(6)		Tulmor, France
Hanzawa 1962	Orbitoides	sp.	d'Orbigny	%	Maastrichtian	%	%	%		%
Hashimoto et al. 1978a	Orbitoides	sp.	%	65	?Cretaceous-Paleocene?	PHL	ASP	%		Finugay Hill, Tanay, Rizal, Central Luzon
Ho et al. 1976	Orbitoides	apiculata	%	48	Maastrichtian	CHN	ASP	10(1-3,5-8)		Mount Jolmo Lungma Region
Ho et al. 1976	Orbitoides	media	(d'Archiac)	48	Maastrichtian	CHN	ASP	9(4-10); 10(4)		Mount Jolmo Lungma Region
Ho et al. 1976	Orbitoides	tissoti	Schlumberger	48	Campanian	CHN	ASP	9(1-3)		Mount Jolmo Lungma Region
Ho et al. 1976	Orbitoides	gensacicus praevius	Köhler	48	%	CHN	ASP	9(11,12)		Mount Jolmo Lungma Region
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	E.N.C.I. quarry, Lichtenberg section
Hofker 1966	Orbitoides	faujasi	%	57	%	NLD	EFP		%	Kunrade-chalk
Hofker 1966	Orbitoides	faujasi	%	57	Paleocene, Dano-Maastrichtian	NLD	EFP		%	Albert Canal, cutting of Caster and Vroenhoven
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Biebosch
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	crill-hole Terblijt, G.B. 3525
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Windhagen, north of Windhagen
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	cuarry Franssen-Nelissen
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Trichterberg
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	ce Tombe (37)
Hofker 1966	Orbitoides	faujasi	%	57	%	NLD	EFP		%	t Rooth (38)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	E.N.C.I. quarry, Lichtenberg section (39)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Well Fortress St. Pieter, drill-hole G.B. 194 (40)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	cuarry van der Zwaan (41)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Valkenburg, municipal grotto (42)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	crill-hole Sibbe, G.B. 3621 (43)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	cuarry Curfs (44)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Keerderberg (45)
Hofker 1966	Orbitoides	faujasi	%	57	%	NLD	EFP		%	Ravensbosch (46)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	cuarry Curfs, eastern section (47)
Hofker 1966	Orbitoides	faujasi	%	30	Dano-Maastrichtian	BEL	EFP		%	Albert Canal, cutting of Vroenhoven, Belgium (48)
Hofker 1966	Orbitoides	faujasi	%	57	%	NLD	EFP		%	nine shaft Maurits III (49)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	cuarry Curfs, western section (50)
Hofker 1966	Orbitoides	faujasi	%	30	Paleocene, Dano-Maastrichtian	BEL	EFP		%	Albert Canal, km 23.250 and km 23.650, Belgium (52)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	crill-hole Weert, G.B. 3670 (53)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Kunrade Chalk (55)
Hofker 1966	Orbitoides	faujasi	%	57	Paleocene, Dano-Maastrichtian	NLD	EFP		%	nine shaft Maurits III (56)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Kunrade, Kunderberg (57)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	Welterberg, well I and well II (58)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	crill-hole Rivieren, G.B. 3752 (59)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	shaft I and IV, State Mine Hendrik (60)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	shaft I, Oranje-Nassau Mine III (61)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	shaft I + II, State mine Emma (62)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	crill-hole Heisterbrug, S.M. XVIII (63)
Hofker 1966	Orbitoides	faujasi	%	57	Paleocene?, Dano-Maastrichtian	NLD	EFP		%	crill-hole Puth, S.M. XVI (64)
Hofker 1966	Orbitoides	faujasi	%	57	Dano-Maastrichtian	NLD	EFP		%	crill-hole Geleen-Centrum, S.M. XVI (66)
Hofker 1967	Orbitoides	dordoniensis	Hofker, Sr.	32	late Santonian	ESP	EFP	1(1-11); 2(1-2,10)		Falleresa River, Sierra de Montsech, Lérida
Hofker 1967	Orbitoides	tissoti	Schlumberger	32	late Santonian	ESP	EFP	1(12-14); 2(3-9)		Falleresa River, Sierra de Montsech, Lérida
Hottinger 1966	Orbitoides	media	d'Archiac	32	Maastrichtian	ESP	EFP		%	between Montsech and Tremp
Inan 1996a	Orbitoides	medius	%	38	Maastrichtian	TUR	EFP		%	Koyulhisar-Sivas
Inan 1996a	Orbitoides	apiculatus	%	38	Maastrichtian	TUR	EFP		%	Koyulhisar-Sivas
Inan 1996b	Orbitoides	medius	(d'Archiac)	38	Maastrichtian	TUR	EFP		%	Turkey
Inan 1996b	Orbitoides	apiculatus	Schlumberger	38	Maastrichtian	TUR	EFP		%	Turkey
Inan et al. 1996	Orbitoides	medius	(d'Archiac)	38	%	TUR	EFP	3(6-9); 4(4)		Karacam Highland, Niksar
Inan et al. 1996	Orbitoides	apiculatus	Schlumberger	38	%	TUR	EFP	3(10); 4(2-3)		Karacam Highland, Niksar
Ion 1975	Orbitoides	media	%	41	early Maastrichtian	ROM	EFP		%	Pisnov - vallée du Ghimbavu
Ion 1975	Orbitoides	cf. apiculata	%	41	early Maastrichtian	ROM	EFP		%	Pisnov - vallée du Ghimbavu
Ion 1975	Orbitoides	cf. tissoti	%	41	early Maastrichtian	ROM	EFP		%	Pisnov - vallée du Ghimbavu
Ion 1975	Orbitoides	sp.	%	41	late Maastrichtian	ROM	EFP		%	Pisnov - vallée du Ghimbavu
Ismail & Boukhary 2001	Orbitoides	media	%	20	late Campanian	EGY	AFP		%	Gebel Thelmet, Southern Galala, Eastern Desert, Egypt
Ismail & Boukhary 2001	Orbitoides	media	%	57	%	NLD	EFP		%	Maastricht, Holland
Ismail & Boukhary 2001	Orbitoides	media	%	31	late Cretaceous	FRA	EFP		%	France
Ismail & Boukhary 2001	Orbitoides	media	%	34	late Cretaceous	ITA	EFP		%	Sicily
Ismail & Boukhary 2001	Orbitoides	media	%	35	late Cretaceous	ITA	EFP		%	Palermo, Italy
Ismail & Boukhary 2001	Orbitoides	media	%	48	late Campanian	CHN	ASP		%	Tibet
Ismail & Boukhary 2001	Orbitoides	media	%	36	late Cretaceous	GRC	EFP		%	Thessaly, Greece
Ismail & Boukhary 2001	Orbitoides	media	%	28	Maastrichtian	SYR	AFP		%	N'Gara, Syria
Ismail & Boukhary 2001	Orbitoides	media	%	2	late Cretaceous	USA	CFP		%	Florida (USA)
Ismail & Boukhary 2001	Orbitoides	media	%	31	%	FRA	EFP		%	South France and Alps
Ismail & Boukhary 2001	Orbitoides	media	%	46	Maastrichtian	PAK	ASP		%	Baluchistan, W. Pakistan
Ismail & Boukhary 2001	Orbitoides	media	%	57	Maastrichtian	NLD	EFP		%	Nederlands
Ismail & Boukhary 2001	Orbitoides	media	%	31	Maastrichtian	FRA	EFP		%	France
Ismail & Boukhary 2001	Orbitoides	media	(Archiac)	%	%	%	%	1(1-9)		%
Ismail & Boukhary 2001	Orbitoides	media	(Archiac)	%	%	%	%	2(1-4)		%
Küpper 1954a	Orbitoides	tissoti tissoti	Schlumberger	1	Campanian	CUB	CFP	12(1,2)		well, NW of the village Campo Florida, Habana
Küpper 1954a	Orbitoides	media media	(d'Archiac)	2	late Campanian or early Maastrichtian	USA	CFP	12(3,4)		Lawson, Gilchrist County, Florida
Küpper 1954a	Orbitoides	apiculata browni	(Ellis)	1	%	CUB	CFP	12(5,6)		Madruga
Küpper 1954a	Orbitoides	apiculata apiculata	Schlumberger	1	Maastrichtian	CUB	CFP	12(7,8)		1 km S of Central San Antonio, in railway cut, Habana Province; W of "El Silencia", Cuba
Küpper 1954b	Monolepidorbis	sanctae-pelagiae	Astre	32	late Cretaceous	ESP	EFP	33(4,6)		between Col de Cabrillas and Val de Lluch, Spain
Küpper 1954b	Orbitoides	vacuolaris	(Astre)	32	late Cretaceous	ESP	EFP	33(5)		between Col de Cabrillas and Val de Lluch, Spain
Küpper 1954b	Orbitoides	sp.	%	31	late Cretaceous	FRA	EFP	34(1,2)		Bergerac
Kureshy 1977	Orbitoides	media	d'Archiac	46	Maastrichtian	PAK	ASP		%	Lakhi Range, Sind
Kureshy 1977	Orbitoides	media	d'Archiac	46	late Campanian - early Maastrichtian	PAK	ASP		%	Murree Brewery, Baluchistan
Kureshy 1977	Orbitoides	tissoti	(Schlumberger)	46	late Campanian - early Maastrichtian	PAK	ASP		%	Murree Brewery, Baluchistan
Kureshy 1977	Orbitoides	media	d'Archiac	46	late Campanian - early Maastrichtian	PAK	ASP		%	Harnai, Baluchistan
Kureshy 1977	Orbitoides	tissoti	(Schlumberger)	46	late Campanian - early Maastrichtian	PAK	ASP		%	Harnai, Baluchistan
Kureshy 1977	Orbitoides	apiculata	(Schlumberger)	46	late Campanian - early Maastrichtian	PAK	ASP		%	Harnai, Baluchistan
Kureshy 1977	Orbitoides	compressa	Marks	46	Campanian	PAK	ASP		%	Harnai, Baluchistan
Kureshy 1977	Orbitoides	apiculata	(Schlumberger)	46	early Maastrichtian	PAK	ASP		%	Harnai, Baluchistan

Gusic & Jelaska 1990	%	%	Brac Marbles	%
Gusic & Jelaska 1990	%	%	Brac Marbles	keine genaue Lokalität
Gusic et al. 1988	Fig. 1	%	"bimodal" skeletal wackestone; "deeper" open shelf	%
Gusic et al. 1988	Fig. 1	%	deeper open shelf	%
Hagn 1971	p.20	Lepidorbitoides, Siderolites	%	%
Hagn 1971	p.20	Siderolites, Lepidorbitoides, Omphalocyclus	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	Type species: Orbitolites media; Syn.: Orbitella media
Hashimoto et al. 1978a	Txt-Fig. 1-3	Lepidorbitoides, Omphalocyclus, Pseudorbitoides, Siderolites	sharpstone-bearing conglomeratic sst.	Globotruncana lapparenti, G. sp.
Ho et al. 1976	%	%	%	%
Ho et al. 1976	%	%	%	%
Ho et al. 1976	%	%	%	%
Ho et al. 1976	%	%	%	%
Hofker 1966	p.81;fig.51,1-7,fig. 52	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.84;fig.53,1-2,fig.95	%	%	%
Hofker 1966	fig.62	%	%	%
Hofker 1966	p.126,fig. 66	%	%	%
Hofker 1966	p.127,figs.75,76	%	%	%
Hofker 1966	p.130;figs.85,1;86	%	%	%
Hofker 1966	p.133;fig.88,1;91	%	%	%
Hofker 1966	p.133;figs.92,93	%	%	%
Hofker 1966	p.158;fig.85,8	%	%	%
Hofker 1966	p.158;fig.51,4;52	%	%	%
Hofker 1966	p.159;figs.96,1;97	%	%	%
Hofker 1966	p.159;figs.96,2;98	%	%	%
Hofker 1966	p.171;fig.99	%	%	%
Hofker 1966	p.171;fig.100	%	%	%
Hofker 1966	p.172;figs.101,102	%	%	%
Hofker 1966	p.173;figs.103,104	%	%	%
Hofker 1966	p.200;figs.108,109	%	%	%
Hofker 1966	p.172;figs.101,102	%	%	%
Hofker 1966	p.201;fig.105.1,107	%	%	%
Hofker 1966	p.214	%	%	%
Hofker 1966	p.215;figs.101.1,102	%	%	%
Hofker 1966	p.215;figs.105.1,2;106,107	%	%	%
Hofker 1966	p.216;fig.112	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.272;figs.73.2,123	%	%	%
Hofker 1966	p.274;figs.124,125	%	%	%
Hofker 1966	p.274;fig.128	%	%	%
Hofker 1966	p.275;129	%	%	%
Hofker 1966	p.275;fig.130	%	%	%
Hofker 1966	p.275;fig.131	%	%	%
Hofker 1966	p.275;fig.132	%	%	%
Hofker 1966	p.275;fig.133	%	%	%
Hofker 1966	p.276;fig.135	%	%	%
Hofker 1967	Txt-Fig. 1	%	%	%
Hofker 1967	Txt-Fig. 1	%	%	%
Hottinger 1966	Figs. 1,2	Siderolithes calcitrapoides, Omphalocyclus macroporus	calcaires gréseux très durs à conglomérats intraformationels	%
Inan 1996a	Fig. 1	%	Limestone, sandy limestone, clayey limestone; Tidal - Back ree	%
Inan 1996a	Fig. 1	%	Limestone, sandy limestone, clayey limestone; Tidal - Back ree	%
Inan 1996b	Fig. 1	Laffitteina, Omphalocyclus, Cuneolina	%	%
Inan 1996b	Fig. 1	Laffitteina, Omphalocyclus, Cuneolina	%	%
Inan et al. 1996	Fig. 1	%	%	%
Inan et al. 1996	Fig. 1	%	%	%
Ion 1975	Fig. 1	Lepidorbitoides (minor, socialis), Siderolites calcitrapoides; Globotruncana gansseri	%	%
Ion 1975	Fig. 1	Lepidorbitoides (minor, socialis), Siderolites calcitrapoides; Globotruncana gansseri	%	%
Ion 1975	Fig. 1	Lepidorbitoides (minor, socialis), Siderolites calcitrapoides; Globotruncana gansseri	%	%
Ion 1975	Fig. 1	Lepidorbitoides socialis, Siderolites, Omphalocyclus, Abathomphalus mayaroensis	%	%
Ismail & Boukhary 2001	%	%	hard massive limestone vith some marly limestone interbeds	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Küpper 1954a	%	%	%	well depth: 950 ft; topotype material of Orbitoides palmeri Gravell
Küpper 1954a	%	%	%	Sun Oil Co., Well No. 1
Küpper 1954a	%	%	%	stratigraphic position uncertain
Küpper 1954a	%	%	%	%
Küpper 1954b	%	%	%	%
Küpper 1954b	%	%	%	%
Küpper 1954b	%	%	%	alternating embryonic chambers
Kureshy 1977	Fig. 1	Siderolites, Omphalocyclus, Sulcoperculina	%	Orbitoides media zone
Kureshy 1977	Fig. 1	Lepidorbitoides, Siderolites, Omphalocyclus, Sulcoperculina	Carbonate facies	%
Kureshy 1977	Fig. 1	Lepidorbitoides, Siderolites, Omphalocyclus, Sulcoperculina	Carbonate facies	%
Kureshy 1977	Fig. 1	Lepidorbitoides, Siderolites, Omphalocyclus, Sulcoperculina	hard massive, splintry, light brown in color; Carbonate facies	%
Kureshy 1977	Fig. 1	Lepidorbitoides, Siderolites, Omphalocyclus, Sulcoperculina	hard massive, splintry, light brown in color; Carbonate facies	%
Kureshy 1977	Fig. 1	Lepidorbitoides, Siderolites, Omphalocyclus, Sulcoperculina	hard massive, splintry, light brown in color; Carbonate facies	%
Kureshy 1977	Fig. 1	Lepidorbitoides	%	Orbitoides tissoti zone
Kureshy 1977	Fig. 1	Omphalocyclus, Siderolites, Sulcoperculina, Lepidorbitoides	%	Orbitoides media zone

Kureshy 1977	Orbitoides	media	d'Archiac	46	early Maastrichtian	PAK	ASP	%		Harnai, Baluchistan
Kureshy 1980	Orbitoides	tissoti	(Schlumberger)	46	Campanian-Maastrichtian	PAK	ASP	%		Pakistan
Kureshy 1980	Orbitoides	compressa	Mark	46	Campanian-Maastrichtian	PAK	ASP	%		Pakistan
Kureshy 1980	Orbitoides	compressa	%	21	Cretaceous	BHS	CFP	%		Bahama Island
Kureshy 1980	Orbitoides	media	d'Archiac	46	Campanian-Maastrichtian	PAK	ASP	%		Pakistan
Kureshy 1980	Orbitoides	apiculata	(Schlumberger)	46	Campanian-Maastrichtian	PAK	ASP	%		Pakistan
Kureshy 1980	Orbitoides	minima	(Vredenburg)	46	Campanian-Maastrichtian	PAK	ASP	%		Pakistan
Loeblich & Tappan 1988	Orbitoides	sp.	d'Orbigny	%	late Santonian-Maastrichtian	%	%	%		Europe, North America, Caribbean, India
Loeblich & Tappan 1988	Orbitoides	douvillei	(Silvestri)	32	Campanian	ESP	EFP	730(1)		near chapel of Sainte Pelagie, N. flank of Sierra de Turp, Lerida Prov., Spain
Loeblich & Tappan 1988	Orbitoides	apiculata	Schlumberger	57	Dordonian	NLD	EFP	730(2-4)		Maastricht, Netherlands
Loeblich & Tappan 1988	Orbitoides	apiculata	Schlumberger	31	Dordonian	FRA	EFP	730(5,6)		Maurens, Dept. Dordogne, France
Loeblich & Tappan 1988	Orbitoides	douvillei	(Silvestri)	31	late Santonian	FRA	EFP	731(1-2)		Belvès, France
Loeblich & Tappan 1988	Orbitoides	taujasii	(Defrance)	31	Maastrichtian	FRA	EFP	731(3-7)		France
Luperto Sinni & Ricchetti 1978	Orbitoides	tissoti forma douvillei	(Silvestri)	35	late Campanian	ITA	EFP	54(1); 55(6,7)		Specchia Tarantina, Murge
Luperto Sinni & Ricchetti 1978	Orbitoides	tissoti forma densa	(Astre)	35	late Campanian	ITA	EFP	54(2-9); 57(3)		Specchia Tarantina, Murge
Luperto Sinni & Ricchetti 1978	Orbitoides	tissoti	Schlumberger	35	late Campanian	ITA	EFP	55(1-5); 56(4-7)		Specchia Tarantina, Murge
Luperto Sinni & Ricchetti 1978	Orbitoides	media	(d'Archiac)	35	late Campanian	ITA	EFP	56(1-3); 57(1,2,4,5); 58(1-6)		Specchia Tarantina, Murge
Mavrikas et al. 1994	Orbitoides	gr. media	%	36	late Maastrichtian	GRC	EFP	%		Ori Valtou
Mavrikas et al. 1994	Orbitoides	apiculata	Schlumberger	36	late Maastrichtian	GRC	EFP	%		Ori Valtou
Mavrikas et al. 1994	Orbitoides	spp.	%	36	early Maastrichtian	GRC	EFP	%		Ori Valtou
Mavrikas et al. 1994	Orbitoides	megaloformis	%	36	early Maastrichtian	GRC	EFP	%		Ori Valtou
Mavrikas et al. 1994	Orbitoides	gensacicus	(Leymerie)	36	late Maastrichtian	GRC	EFP	%		Ori Valtou
McGowran 1968	Orbitoides	sp.	%	46	late Cretaceous	PAK	ASP	%		South of Sulaiman Range, West Pakistan
McGowran 1968	Orbitoides	sp.	%	46	Maastrichtian	PAK	ASP	%		Rakhi Nala section, Sulaiman Range, West Pakistan
McGowran 1968	Orbitoides	sp.	%	51	Campanian	PNG	ASP	%		Port Moresby District, Western Pacific
Meric & Coruh 1991	Orbitoides	apiculatus	Schlumberger	56	middle-late Maastrichtian	IRN	EFP	%		Celikli well; NW Siirt, SE Anatolia
Meric & Coruh 1991	Orbitoides	medius	(d'Archiac)	56	middle-late Maastrichtian	IRN	EFP	%		Celikli well; NW Siirt, SE Anatolia
Meric et al. 1997	Orbitoides	apiculatus	Schlumberger	38	Maastrichtian	TUR	EFP	1(1-4)		Serefikochisar (Central Anatolia-Turkey)
Meric et al. 1997	Orbitoides	medius	%	31	late Maastrichtian	FRA	EFP	%		Antrans (Isère) area, France
Meric et al. 1997	Orbitoides	medius	%	38	%	TUR	EFP	%		Cörtinek-Kahta-Adiyaman (SE Turkey)
Meric et al. 1997	Orbitoides	gruenbachensis	%	38	%	TUR	EFP	%		Uyuköy-Bilecik (NW Turkey)
Meric et al. 1997	Orbitoides	gruenbachensis	%	38	%	TUR	EFP	%		Osmaneli-Bilecik (NW Turkey)
Meric et al. 1997	Orbitoides	medius ?	%	38	late Maastrichtian	TUR	EFP	%		Korkuteli-Antalya (SW Turkey)
Meric et al. 1997	Orbitoides	medius	%	32	%	ESP	EFP	%		Montsech-Spain (Monsech)
Meric et al. 1997	Orbitoides	medius	%	38	%	TUR	EFP	%		Karadut area
Meric et al. 2001	Orbitoides	apiculatus	%	56	Maastrichtian	IRN	EFP	%		Iran
Meric et al. 2001	Orbitoides	apiculatus	%	23	Maastrichtian	OMN	AFP	%		Oman
Meric et al. 2001	Orbitoides	apiculatus	%	22	Maastrichtian	SAU	AFP	%		Saudi Arabia
Meric et al. 2001	Orbitoides	apiculatus	%	38	mid and late Maastrichtian	TUR	EFP	%		SE Anatolia and other parts of Turkey
Meric & Görmüs 2001	Orbitoides	gruenbachensis	%	38	middle-late Maastrichtian	TUR	EFP	%		Göynük-Karanlikdere (Bolu)
Meric & Görmüs 2001	Orbitoides	apiculatus	%	38	middle-late Maastrichtian	TUR	EFP	%		Göynük-Karanlikdere (Bolu)
Meric & Görmüs 2001	Orbitoides	apiculatus	%	38	middle-late Maastrichtian	TUR	EFP	%		Göynük-Karanlikdere (Bolu)
Meric & Görmüs 2001	Orbitoides	medius	%	38	middle-late Maastrichtian	TUR	EFP	%		Haymana (Ankara)
Meric & Görmüs 2001	Orbitoides	gruenbachensis	%	38	middle-late Maastrichtian	TUR	EFP	%		Haymana (Ankara)
Meric & Görmüs 2001	Orbitoides	apiculatus	%	38	middle-late Maastrichtian	TUR	EFP	%		Haymana (Ankara)
Meric & Görmüs 2001	Orbitoides	apiculatus	%	38	middle-late Maastrichtian	TUR	EFP	%		Zorbehan-Hekimhan (Malatya)
Meric & Görmüs 2001	Orbitoides	medius	%	38	middle-late Maastrichtian	TUR	EFP	%		Sivrice-Elazig
Meric & Görmüs 2001	Orbitoides	medius	%	38	middle-late Maastrichtian	TUR	EFP	%		Osmaniye
Meric & Görmüs 2001	Orbitoides	medius	%	38	middle-late Maastrichtian	TUR	EFP	%		Pazarcik
Meric & Görmüs 2001	Orbitoides	medius	%	38	middle-late Maastrichtian	TUR	EFP	%		Pazarcik
Meric & Görmüs 2001	Orbitoides	apiculatus, medius	%	38	middle-late Maastrichtian	TUR	EFP	%		Southeastern Turkey
Meric & Görmüs 2001	Orbitoides	gruenbachensis	%	38	middle-late Maastrichtian	TUR	EFP	%		Southeastern Turkey
Meric & Görmüs 2001	Orbitoides	medius	%	38	middle-late Maastrichtian	TUR	EFP	%		Southeastern Turkey
Meric & Görmüs 2001	Orbitoides	gruenbachensis	%	38	middle-late Maastrichtian	TUR	EFP	%		Southeastern Turkey
Mu et al. 1973	Orbitoides	media	%	48	Maastrichtian	CHN	ASP	%		Mount Jolmo Lungma Region, Southern Tibet
Myers 1968	Orbitoides	sp.	%	3	late Cretaceous	MEX	CFP	%		Cardenas
Nagappa 1959	Orbitoides	media	d'Archiac	46	Maastrichtian	PAK	ASP	%		Lakhi Range, Sind
Nagappa 1959	Orbitoides	media	(d'Archiac)	46	Maastrichtian	PAK	ASP	1(4)		Dunghan Range, Baluchistan
Nagappa 1959	Orbitoides	media	%	46	Maastrichtian	PAK	ASP	%		Quetta, Baluchistan
Nagappa 1959	Orbitoides	media	%	46	Maastrichtian	PAK	ASP	%		Rakhi Nala, Sulaiman Range
Nagappa 1959	Orbitoides	media	%	48	Maastrichtian	CHN	ASP	%		central Tibet
Nagappa 1959	Orbitoides	media	%	48	Maastrichtian	CHN	ASP	%		central Tibet
Nagappa 1959	Orbitoides	sp.	%	45	Maastrichtian	IND	ASP	%		central Assam
Neumann 1972	Orbitoides	tissoti	Schlumberger	31	late Campanian	FRA	EFP	1(1,2)		Le Buisson (Dordogne)
Neumann 1972	Orbitoides	media	d'Archiac	32	late Maastrichtian	ESP	EFP	1(3)		Montsech
Neumann 1972	Orbitoides	media	d'Archiac	31	late Campanian	FRA	EFP	1(4-5)		Meschers
Neumann 1972	Orbitoides	tissoti var. densa	Schlumberger	32	Santonian	ESP	EFP	1(6)		Montsech
Neumann 1972	Orbitoides	media	d'Archiac	31	late Campanian	FRA	EFP	1(7), 2(1,2,4,5)		Brossac (Charente)
Neumann 1972	Orbitoides	media	d'Archiac	32	late Campanian	ESP	EFP	1(8)		Montsech
Neumann 1972	Orbitoides	apiculata	Schlumberger	38	Maastrichtian	TUR	EFP	1(9)		Turkey
Neumann 1993	Orbitoides	tissoti	Schlumberger	16	late Campanian	DZA	AFP	1(1,2)		Algeria
Neumann 1993	Orbitoides	tissoti	Schlumberger	16	late Maastrichtian	DZA	AFP	1(3)		Algeria
Neumann 1993	Orbitoides	media	(d'Archiac)	31	late Campanian	FRA	EFP	1(4-5)		Talmont (Charente-Maritime)
Neumann 1993	Orbitoides	media	(d'Archiac)	31	late Campanian	FRA	EFP	1(6-9)		Meschers (Charente-Maritime)
Neumann 1993	Orbitoides	media	(d'Archiac)	31	late Campanian	FRA	EFP	1(10)		Royan (Charente-Maritime)
Neumann 1993	Orbitoides	media	(d'Archiac)	31	%	FRA	EFP	1(11,12)		Maurens (Dordogne)
Neumann 1993	Orbitoides	media	(d'Archiac)	31	late Maastrichtian	NLD	EFP	1(13-15)		Maastricht
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31	late Campanian	FRA	EFP	1(16)		Aubeterre (Charente)
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31	late Campanian	FRA	EFP	1(17-18)		Meschers (Charente-Maritime)
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31	late Campanian	FRA	EFP	2(1)		Royan (Charente-Maritime)
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31	early Maastrichtian	FRA	EFP	2(2-5)		Maurens (Dordogne)
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31	late Maastrichtian	FRA	EFP	2(6)		St.-Marcet (Haute-Garonne)
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31	late Maastrichtian	FRA	EFP	2(7)		Latoue (Haute-Garonne)
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	57	late Maastrichtian	NLD	EFP	2(8)		Maastricht
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31	late Campanian	FRA	EFP	2(15)		Mussidan (Dordogne)
Neumann 1993	Orbitoides	gruenbachensis	Papp	31	late Campanian	FRA	EFP	2(9,11)		Aubeterre (Charente)
Neumann 1993	Orbitoides	gruenbachensis	Papp	31	late Campanian	FRA	EFP	2(10)		Meschers (Charente-Maritime)

Kureshy 1977	Fig. 1	Omphalocyclus, Siderolites, Sulcoperculina, Lepidorbitoides	%	Orbitoides media zone
Kureshy 1980	p.94	Lepidorbitoides, Omphalocyclus, Siderolites, Sulcoperculina	%	%
Kureshy 1980	p.94	Lepidorbitoides, Omphalocyclus, Siderolites, Sulcoperculina	%	%
Kureshy 1980	%	%	%	%
Kureshy 1980	p.94	Lepidorbitoides, Omphalocyclus, Siderolites, Sulcoperculina	%	%
Kureshy 1980	p.94	Lepidorbitoides, Omphalocyclus, Siderolites, Sulcoperculina	%	%
Kureshy 1980	p.94	Lepidorbitoides, Omphalocyclus, Siderolites, Sulcoperculina	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	Type species of Schlumbergeria; specimen identified as Monolepidorbis sanctaepelagiae
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	Type species of Silvestrina
Loeblich & Tappan 1988	%	%	%	Type species of Schlumbergeria
Loeblich & Tappan 1988	%	%	%	%
Luperto Sinni & Ricchetti 1978	fig. 1	%	%	%
Luperto Sinni & Ricchetti 1978	fig. 1	%	%	%
Luperto Sinni & Ricchetti 1978	fig. 1	%	%	%
Luperto Sinni & Ricchetti 1978	fig. 1	%	%	%
Mavrikas et al. 1994	Fig. 1	Siderolites, Pseudedomia, Lepidorbitoides, Hellenocyclina, Sirtina	limestones with large rudists; plate-forme externe	%
Mavrikas et al. 1994	Fig. 1	Siderolites, Pseudedomia, Lepidorbitoides, Hellenocyclina, Sirtina	limestones with large rudists; plate-forme externe	%
Mavrikas et al. 1994	Fig. 1	Siderolites	bioclastic limestone; plate-forme externe où, par exception, les influences de la mer ouverte et de la plate-forme protégée se mêlent	%
Mavrikas et al. 1994	Fig. 1	Siderolites	bioclastic limestone; plate-forme externe où, par exception, les influences de la mer ouverte et de la plate-forme protégée se mêlent	%
Mavrikas et al. 1994	Fig. 1	Pseudedomia, Sirtina	limestones with large rudists; plate-forme externe	%
McGowran 1968	%	Omphalocyclus	%	%
McGowran 1968	%	%	%	%
McGowran 1968	%	Pseudorbitoides	%	%
Meric & Coruh 1991	Fig. 1	Omphalocyclus macroporus, Lepidorbitoides socialis, L. cf. minor, Clypeorbis mamillata, Sulcoperculina sp., Cuneolina sp.	%	%
Meric & Coruh 1991	fig. 1	Omphalocyclus macroporus, Lepidorbitoides socialis, L. cf. minor, Clypeorbis mamillata, Sulcoperculina sp., Cuneolina sp.	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 1997	%	%	%	%
Meric et al. 2001	%	Loftusia, Omphalocyclus	%	%
Meric et al. 2001	%	Loftusia, Omphalocyclus	%	%
Meric et al. 2001	%	Omphalocyclus, Loftusia	%	%
Meric et al. 2001	%	Loftusia, Omphalocyclus	%	%
Meric & Görmüs 2001	%	Siderolites calcitrapoides, Lepidorbitoides socialis, Loftusia anatolica	sandstone	%
Meric & Görmüs 2001	%	%	sandstone	%
Meric & Görmüs 2001	%	Omphalocyclus macroporus	sandstone	%
Meric & Görmüs 2001	%	Lepidorbitoides socialis	sandstone; claystone-mudstone	%
Meric & Görmüs 2001	%	Hellenocyclina beotica	sandstone; claystone-mudstone	%
Meric & Görmüs 2001	%	Siderolites calcitrapoides	sandstone; claystone-mudstone	%
Meric & Görmüs 2001	%	%	clayey limestone	%
Meric & Görmüs 2001	%	%	shale	%
Meric & Görmüs 2001	%	Siderolites calcitrapoides, Omphalocyclus macroporus	clayey limestone	%
Meric & Görmüs 2001	%	Sulcoperculina sp., Siderolites calcitrapoides	limestone	%
Meric & Görmüs 2001	%	Sulcoperculina sp., Siderolites calcitrapoides	limestone	%
Meric & Görmüs 2001	%	%	claystone-mudstone	%
Meric & Görmüs 2001	%	%	claystone-mudstone	%
Meric & Görmüs 2001	%	%	claystone-mudstone	%
Meric & Görmüs 2001	%	%	limestone	%
Mu et al. 1973	%	Omphalocyclus	Limestone intercalated with calcareous shale; shallowwater; platform type	%
Myers 1968	%	%	%	%
Nagappa 1959	txt-fig.2	Siderolites, Omphalocyclus; Globigerina, Guembelina	light-coloured massive or thick-bedded limestones, becoming sandy toward the top; deposition on the continental shelf in warm, shallow, sometimes sheltered waters of the inner neritic environment	maximum thickness 320'+; base not exposed
Nagappa 1959	p.177	%	%	%
Nagappa 1959	txt-fig.2	Omphalocyclus, Siderolites	shelf deposits in shallowinner neritic environments	%
Nagappa 1959	txt-fig.2	Omphalocyclus, Siderolites	%	%
Nagappa 1959	table 8	Omphalocyclus	%	%
Nagappa 1959	table 8	%	%	%
Nagappa 1959	%	Siderolites; Globotruncana stuarti, Guembelina plummerae	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Borehole; Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
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Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors
Neumann 1993	%	%	%	Illustrations by different authors

Neumann 1993	Orbitoides	gruenbachensis	Papp	31		early Maastrichtian	FRA	EFP	2(12-13)	Maurens (Dordogne)
Neumann 1993	Orbitoides	media	(d'Archiac)	31		late Campanian	FRA	EFP	2(14)	Le Caillaud (Charente-Maritime)
Neumann 1993	Orbitoides	gruenbachensis	Papp	31		late Maastrichtian	FRA	EFP	3(1)	Gensac (Haute-Garonne)
Neumann 1993	Orbitoides	gruenbachensis	Papp	57		late Maastrichtian	NLD	EFP	3(2)	Maastricht
Neumann 1993	Orbitoides	gruenbachensis	Papp	31		late Maastrichtian	FRA	EFP	3(3)	Latoue (Haute-Garonne)
Neumann 1993	Orbitoides	gruenbachensis	Papp	57		late Maastrichtian	NLD	EFP	3(4-5)	Maastricht
Neumann 1993	Orbitoides	gruenbachensis	Papp	59		late Maastrichtian	AUT	EFP	3(6)	Grünbach
Neumann 1993	Orbitoides	apiculata	Schlumberger	57		late Maastrichtian	NLD	EFP	3(7-9)	Maastricht
Neumann 1993	Orbitoides	megaloformis	%	59		early Maastrichtian	AUT	EFP	4(1)	Grünbach
Neumann 1993	Orbitoides	tissoti	Schlumberger	16		late Campanian	DZA	AFP	4(2)	Algeria
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	31		early Maastrichtian	FRA	EFP	4(3)	Maurens (Dordogne)
Neumann 1993	Orbitoides	media	(d'Archiac)	31		late Campanian	FRA	EFP	4(4)	Talmont (Charente-Maritime)
Neumann 1993	Orbitoides	gruenbachensis	Papp	31		early Maastrichtian	FRA	EFP	4(5)	Maurens (Dordogne)
Neumann 1993	Orbitoides	megaloformis	Papp & Küpper	59		late Maastrichtian	AUT	EFP	4(6)	Grünbach
Neumann 1993	Orbitoides	gruenbachensis	Papp	38		late Maastrichtian	TUR	EFP	4(7)	Turquie
Neumann 1993	Orbitoides	gruenbachensis	Papp	59		late Maastrichtian	AUT	EFP	4(8)	Grünbach
Neumann 1993	Orbitoides	apiculata	Schlumberger	32		late Maastrichtian	ESP	EFP	4(9-10)	Montsech (Espagne)
Neumann 1993	Orbitoides	tissoti	%	31		early Campanian	FRA	EFP	%	Aquitaine septentrionale
Neumann 1993	Orbitoides	media	%	31		late Campanian	FRA	EFP	%	Aquitaine septentrionale
Neumann 1993	Orbitoides	megaloformis	%	31		late Campanian	FRA	EFP	%	Aquitaine septentrionale
Neumann 1993	Orbitoides	gruenbachensis	%	31		Campanian	FRA	EFP	%	Aquitaine septentrionale
Neumann 1993	Orbitoides	tissoti	%	32		Campanian	ESP	EFP	%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Orbitoides	media	%	32		Campanian	ESP	EFP	%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Orbitoides	megaloformis	%	32		Campanian	ESP	EFP	%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Orbitoides	gruenbachensis	%	32		Campanian	ESP	EFP	%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Orbitoides	tissoti	%	59		Campanian	AUT	EFP	%	Silberegg I, Alpes Carniques
Neumann 1993	Orbitoides	media	%	59		Campanian	AUT	EFP	%	Miesterdorf II, Alpes Carniques
Neumann 1993	Orbitoides	tissoti	%	59		Campanian	AUT	EFP	%	Région de Vienne
Neumann 1993	Orbitoides	media	%	59		Campanian	AUT	EFP	%	Région de Vienne
Neumann 1993	Orbitoides	media megaloformis	%	59		Campanian	AUT	EFP	%	Région de Vienne
Neumann 1993	Orbitoides	tissoti	%	71		Campanian	SVK	EFP	%	W. Carpathes, Tchécoslovaquie
Neumann 1993	Orbitoides	media	%	71		Campanian	SVK	EFP	%	W. Carpathes, Tchécoslovaquie
Neumann 1993	Orbitoides	media megaloformis	%	71		Campanian	SVK	EFP	%	W. Carpathes, Tchécoslovaquie
Neumann 1993	Orbitoides	media	%	31		early Maastrichtian	FRA	EFP	%	Maurens (Dordogne)
Neumann 1993	Orbitoides	megaloformis	%	31		early Maastrichtian	FRA	EFP	%	Maurens (Dordogne)
Neumann 1993	Orbitoides	gruenbachensis	%	31		early Maastrichtian	FRA	EFP	%	Maurens (Dordogne)
Neumann 1993	Orbitoides	media	%	32		Maastrichtian	ESP	EFP	%	plate-formes E pyrénéennes
Neumann 1993	Orbitoides	tissoti	%	32		Maastrichtian	ESP	EFP	%	plate-formes E pyrénéennes
Neumann 1993	Orbitoides	apiculata	%	32		Maastrichtian	ESP	EFP	%	plate-formes E pyrénéennes
Neumann 1993	Orbitoides	media	%	32		Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Orbitoides	megaloformis	%	32		Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Orbitoides	gruenbachensis	%	32		Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Orbitoides	apiculata	%	32		Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Orbitoides	media megaloformis	%	59		Maastrichtian	AUT	EFP	%	Pemberger IV, Alpes Carniques
Neumann 1993	Orbitoides	media	%	59		Maastrichtian	AUT	EFP	%	Pemberger IV, Alpes Carniques
Neumann 1993	Orbitoides	gruenbachensis	%	59		Maastrichtian	AUT	EFP	%	Région de Vienne
Neumann 1993	Orbitoides	apiculata tenuistriata	%	59		Maastrichtian	AUT	EFP	%	Région de Vienne
Neumann 1993	Orbitoides	gruenbachensis	%	71		Maastrichtian	SVK/CZE	EFP	%	Tchécoslovaquie
Neumann 1993	Orbitoides	apiculata	%	71		Maastrichtian	SVK/CZE	EFP	%	Tchécoslovaquie
Neumann 1993	Orbitoides	tissoti	%	1		late Campanian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	tissoti	%		%	late Campanian	MEX	CFP	%	Mexique
Neumann 1993	Orbitoides	tissoti	%	26		late Campanian	SOM	AFP	%	Somalie
Neumann 1993	Orbitoides	media	%	1		late Campanian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	media	%		%	late Campanian	MEX	CFP	%	Mexique
Neumann 1993	Orbitoides	media	%	51		late Campanian	PNG	ASP	%	Nouvelle Guinée
Neumann 1993	Orbitoides	megaloformis	%	1		late Campanian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	media	%	2		early Maastrichtian	USA	CFP	%	Floride
Neumann 1993	Orbitoides	media	%	1		early Maastrichtian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	megaloformis	%	2		early Maastrichtian	USA	CFP	%	Floride
Neumann 1993	Orbitoides	megaloformis	%	1		early Maastrichtian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	gruenbachensis	%	2		early Maastrichtian	USA	CFP	%	Floride
Neumann 1993	Orbitoides	gruenbachensis	%	1		early Maastrichtian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	tissoti	%		%	late Maastrichtian	MEX	CFP	%	Mexique
Neumann 1993	Orbitoides	tissoti	%	46		late Maastrichtian	PAK	ASP	%	Pakistan
Neumann 1993	Orbitoides	media	%		%	late Maastrichtian	MEX	CFP	%	Mexique
Neumann 1993	Orbitoides	media	%	46		late Maastrichtian	PAK	ASP	%	Pakistan
Neumann 1993	Orbitoides	megaloformis	%		%	late Maastrichtian	MEX	CFP	%	Mexique
Neumann 1993	Orbitoides	megaloformis	%	10		late Maastrichtian	VEN	CFP	%	Venezuela
Neumann 1993	Orbitoides	gruenbachensis	%	1		late Maastrichtian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	gruenbachensis	%		%	late Maastrichtian	MEX	CFP	%	Mexique
Neumann 1993	Orbitoides	apiculata	%	1		late Maastrichtian	CUB	CFP	%	Cuba
Neumann 1993	Orbitoides	apiculata	%		%	late Maastrichtian	MEX	CFP	%	Mexique
Özcan 1993	Orbitoides	sp.	%	38		late Maastrichtian	TUR	EFP	%	Aldami section, north-east Kahta region, southeastern Turkey
Özcan 1993	Orbitoides	media	d'Archiac	38		late Maastrichtian	TUR	EFP	fig.4a-d	north-east Kahta region, southeastern Turkey
Özcan 1993	Orbitoides	media	d'Archiac	38		late Maastrichtian	TUR	EFP	fig.4a-d	north-east Kahta region, southeastern Turkey
Özcan 1993	Orbitoides	media	%	38		middle Maastrichtian-Paleocene(?)	TUR	EFP	%	north-east Kahta region, southeastern Turkey
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		late Campanian	TUR	EFP	%	NE side of the Kargasekmez ridge, 1.5 km NW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		early Maastrichtian	TUR	EFP	%	66 m above HAY-W-82
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		early Maastrichtian	TUR	EFP	%	26 m above HAY-W-91
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		late Maastrichtian	TUR	EFP	%	1 km SW of Yesilyurt village
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		late Maastrichtian	TUR	EFP	%	40 m above HAY-W-115
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		late Maastrichtian	TUR	EFP	%	near Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		early Maastrichtian	TUR	EFP	%	2.5 km NE of Haymana, Hamana-Ankara roadside
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		late Maastrichtian	TUR	EFP	%	500 m SE of the Kartalkaya Hill
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		Campanian-Maastrichtian	TUR	EFP	%	SW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	sp.	%	38		late Maastrichtian	TUR	EFP	%	SW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	megaloformis	Papp & Küpper	38		late Campanian	TUR	EFP	2(5-7)	NE side of the Kargasekmez ridge, 1.5 km NW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	megaloformis	Papp & Küpper	38		early Maastrichtian	TUR	EFP	2(8-11)	66 m above HAY-W-82
Özcan & Özkan-Altiner 1997	Orbitoides	megaloformis	Papp & Küpper	38		early Maastrichtian	TUR	EFP	2(12-17)	26 m above HAY-W-91
Özcan & Özkan-Altiner 1997	Orbitoides	megaloformis	Papp & Küpper	38		early Maastrichtian	TUR	EFP	2(18)	2.5 km NE of Haymana, Hamana-Ankara roadside
Özcan & Özkan-Altiner 1997	Orbitoides	megaloformis	Papp & Küpper	38		late Campanian?-early Maastrichtian?	TUR	EFP	3(1)	2.5 km NE of Haymana, Hamana-Ankara roadside
Özcan & Özkan-Altiner 1997	Orbitoides	apiculata	Schlumberger	38		late Maastrichtian	TUR	EFP	3(2,9)	SW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	apiculata	Schlumberger	38		late Maastrichtian	TUR	EFP	3(3,5,12)	1 km SW of Yesilyurt village
Özcan & Özkan-Altiner 1997	Orbitoides	apiculata	Schlumberger	38		late Maastrichtian	TUR	EFP	3(4)	40 m above HAY-W-115

Neumann 1993	%	%	%	Illustrations by different authors	
Neumann 1993	%	%	%	Illustrations by different authors	
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Neumann 1993	%	%	%	Borehole; Illustrations by different authors	
Neumann 1993	%	%	%	Illustrations by different authors	
Neumann 1993	%	%	%	Borehole; Illustrations by different authors	
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Neumann 1993	%	%	%		%
Özcan 1993	%	Sirtina	red coloured, coarse clastics and locally sandy carbonate intercalations		%
Özcan 1993	%	Siderolites, Omphalocyclus, Loftusia	friable sands and carbonate units; shallowwater		%
Özcan 1993	%	Siderolites, Omphalocyclus, Sirtina, Lepidorbitoides, Loftusia	friable sands and carbonate units; shallowwater		%
Özcan 1993	%	Siderolites, Loftusia	marls and siltstones		%
Özcan & Özkan-Altiner 1997	Fig. 1	Lepidorbitoides	coarse-grained sandstone		%
Özcan & Özkan-Altiner 1997	Fig. 1	Lepidorbitoides	1.5-2 m thick friable siltstone-sandstone bed		%
Özcan & Özkan-Altiner 1997	Fig. 1	Lepidorbitoides	yellowish gray coloured, very fossiliferous and friable siltstone-sandstone		%
Özcan & Özkan-Altiner 1997	Fig. 1	Omphalocyclus, Siderolites, Lepidorbitoides (very sporadic)	20-40 cm thick friable sandstone bed		%
Özcan & Özkan-Altiner 1997	Fig. 1	Lepidorbitoides, Omphalocyclus	massive clastic part		%
Özcan & Özkan-Altiner 1997	Fig. 1	Lepidorbitoides, Omphalocyclus, Siderolites, Sirtina, Hellenocyclina	3 m thick bioclastic horizon		%
Özcan & Özkan-Altiner 1997	Fig. 1	%	3 m thick sandstone-sandy limestone		%
Özcan & Özkan-Altiner 1997	Fig. 1	Lepidorbitoides, Sirtina, Omphalocyclus, Siderolites, Hellenocyclina	50 cm thick well-cemented sandstone horizon between shale-marl units		%
Özcan & Özkan-Altiner 1997	Fig. 1	%	sandstone-conglomerate	disseminated tests	
Özcan & Özkan-Altiner 1997	Fig. 1	Lepidorbitoides, Loftusia, Siderolites, Hellenocyclina, Sirtina, Omphalocyclus	nodular, friable limy sandstone and sandy limestone beds		%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%		%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%		%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%		%
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Özcan & Özkan-Altiner 1997	Fig. 1	%	%		%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%		%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%		%

Özcan & Özkan-Altiner 1997	Orbitoides	apiculata	Schlumberger	38	late Maastrichtian	TUR	EFP	3(6,8)	near Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	apiculata	Schlumberger	38	late Maastrichtian	TUR	EFP	3(7,11)	near Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	apiculata	Schlumberger	38	late Maastrichtian	TUR	EFP	3(10)	near Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Orbitoides	apiculata	Schlumberger	38	late Maastrichtian	TUR	EFP	4(1)	500 m SE of the Kartalkaya Hill
Özcan & Özkan-Altiner 1999a	Orbitoides	media	(d'Archiac)	%	late Campanian/early Maastrichtian	TUR	EFP	fig.4(1)	%
Özcan & Özkan-Altiner 1999a	Orbitoides	media	(d'Archiac)	%	late Campanian/early Maastrichtian	TUR	EFP	fig.4(2)	%
Özcan & Özkan-Altiner 1999a	Orbitoides	media	(d'Archiac)	38	%	TUR	EFP	fig.4(3)	north-east of Adiyaman, southeast Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	media	(d'Archiac)	38	Maastrichtian	TUR	EFP	fig.4(4)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis	Papp & Küpper	38	Campanian-Maastrichtian	TUR	EFP	fig.4(5)	north-west of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis	Papp & Küpper	38	Campanian-Maastrichtian	TUR	EFP	fig.4(6)	north-west of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis	Papp & Küpper	38	Maastrichtian	TUR	EFP	fig.4(7)	north-east of Adiyaman, southeast Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis	Papp & Küpper	38	Maastrichtian	TUR	EFP	fig.4(8)	north-east of Adiyaman, southeast Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis	Papp & Küpper	38	Campanian-Maastrichtian	TUR	EFP	fig.4(9)	north-west of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis	Papp & Küpper	38	Campanian-Maastrichtian	TUR	EFP	fig.4(10)	north-west of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis/gruenbachensis	Papp & Küpper/Papp	38	Campanian-Maastrichtian	TUR	EFP	fig.4(11)	north of Hanönü, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	megaloformis/gruenbachensis	Papp & Küpper/Papp	38	Campanian-Maastrichtian	TUR	EFP	fig.4(12)	north of Hanönü, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	gruenbachensis	Papp	38	Maastrichtian	TUR	EFP	fig.4(13)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	gruenbachensis	Papp	38	Maastrichtian	TUR	EFP	fig.4(14)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	gruenbachensis	Papp	38	Maastrichtian	TUR	EFP	fig.4(15)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	gruenbachensis	Papp	38	Maastrichtian	TUR	EFP	fig.4(16)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata	Schlumberger	38	Campanian-Maastrichtian	TUR	EFP	fig.4(17)	north-west of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata	Schlumberger	38	Campanian-Maastrichtian	TUR	EFP	fig.4(18)	north-west of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata	Schlumberger	38	late Maastrichtian	TUR	EFP	fig.4(19)	north of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata	Schlumberger	38	Maastrichtian	TUR	EFP	fig.4(21)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata	Schlumberger	38	Maastrichtian	TUR	EFP	fig.4(22)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata	Schlumberger	38	Maastrichtian	TUR	EFP	fig.4(23)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata	Schlumberger	38	Maastrichtian	TUR	EFP	fig.4(24)	east of Cide, central Anatolia
Özcan & Özkan-Altiner 1999a	Orbitoides	apiculata(?)	Schlumberger	38	late Campanian/early Maastrichtian	TUR	EFP	fig.4(20)	south of Hayman, central Anatolia
Özcan & Özkan-Altiner 1999b	Orbitoides	media	%	38	Campanian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	media	%	38	Campanian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Campanian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gensasicus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	Campanian-Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	gensasicus	%	38	Campanian-Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	apiculata	%	38	%	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	early Maastrichtian	TUR	EFP	%	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	early Maastrichtian	TUR	EFP	%	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	early Maastrichtian	TUR	EFP	%	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	early Maastrichtian	TUR	EFP	%	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	megaloformis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Orbitoides	gruenbachensis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Hanönü area (NW Anatolia)
Özkan-Altiner & Özcan 1999	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Campanian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Orbitoides	gensacicus	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Campanian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	media	%	38	Campanian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Campanian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	media	%	38	Campanian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	apiculata	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Orbitoides	gruenbachensis	%	38	Maastrichtian	TUR	EFP	%	Hanönü region
Özkan-Altiner & Özcan 1999	Orbitoides	megaloformis	%	38	Maastrichtian	TUR	EFP	%	Hanönü region
Papp 1954	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	%	Silberegg SW of Guttaring, Kärnten
Papp 1954	Orbitoides	tissoti minima	Vredenburg	59	Campanian	AUT	EFP	%	Silberegg SW of Guttaring, Kärnten
Papp 1954	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	%	Steinbruch Wietersdorfer Zementfabrik, Pemberger Riegel, oberhalb Bergstation
Papp 1954	Orbitoides	media media	d'Archiac	59	Campanian	AUT	EFP	%	Steinbruch Wietersdorfer Zementfabrik, Pemberger Riegel, oberhalb Bergstation
Papp 1954	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	%	Gehöft Pemberger
Papp 1954	Orbitoides	aff. tissoti minima	Vredenburg	59	Campanian	AUT	EFP	%	Gehöft Pemberger
Papp 1954	Orbitoides	media media	d'Archiac	59	Campanian	AUT	EFP	%	Gehöft Pemberger
Papp 1954	Orbitoides	jaegeri	Papp & Küpper	59	Campanian	AUT	EFP	%	Gehöft Pemberger

Özcan & Özkan-Altiner 1997	Fig. 1	%	%	%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%	%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%	%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	primitive form
Özcan & Özkan-Altiner 1999a	%	%	%	primitive form
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	advanced form
Özcan & Özkan-Altiner 1999a	%	%	%	advanced form
Özcan & Özkan-Altiner 1999a	%	%	%	transitional form
Özcan & Özkan-Altiner 1999a	%	%	%	transitional form
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
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Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. elevata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. ventricosa-R. calcarata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. ventricosa-R. calcarata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus, Sirtina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	R. calcarata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Omphalocyclus, Sirtina, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Omphalocyclus	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Omphalocyclus	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Omphalocyclus	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides, Omphalocyclus	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. havanensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Lepidorbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncanella havanensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncanita elevata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Papp 1954	%	Siderolites, Pseudorbitoides	%	%
Papp 1954	%	Siderolites, Pseudorbitoides	%	%
Papp 1954	%	Siderolites, Pseudorbitoides	%	%
Papp 1954	%	Siderolites, Pseudorbitoides	%	%
Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%

Papp 1954	Orbitoides	media megaloformis	Papp & Küpper	59	Campanian	AUT	EFP	%	Gehöft Pemberger
Papp 1954	Orbitoides	media	%	57	Maastrichtian	NLD	EFP	%	Maastricht
Papp 1954	Orbitoides	media	%	59	Maastrichtian	AUT	EFP	%	Flysch bei Wien, Gosau bei Grünbach
Papp 1954	Orbitoides	apiculata	%	57	Maastrichtian	NLD	EFP	%	Maastricht
Papp 1954	Orbitoides	apiculata	%	59	Maastrichtian	AUT	EFP	%	Flysch bei Wien, Gosau bei Grünbach
Papp 1954	Orbitoides	apiculata	%	31	Maastrichtian	FRA	EFP	%	Gensac; Fruska-Gora
Papp 1955b	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	%	Fundorte S Guttaring Silberegg (I)
Papp 1955b	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	%	Pembergerriegel Steinbruch WWietersdorf (II)
Papp 1955b	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	%	nördlich Gehöft Pemberger (III)
Papp 1955b	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	%	Sandsteinlagen bei Pemberger (IV)
Papp 1955b	Orbitoides	tissoti minima	Vredenburg	59	Campanian	AUT	EFP	%	Fundorte S Guttaring Silberegg (I)
Papp 1955b	Orbitoides	tissoti minima	Vredenburg	59	Campanian	AUT	EFP	%	Pembergerriegel Steinbruch WWietersdorf (II)
Papp 1955b	Orbitoides	tissoti minima	Vredenburg	59	Campanian	AUT	EFP	%	nördlich Gehöft Pemberger (III)
Papp 1955b	Orbitoides	media media	(d'Archiac)	59	Campanian	AUT	EFP	%	Pembergerriegel Steinbruch WWietersdorf (II)
Papp 1955b	Orbitoides	media media	(d'Archiac)	59	Campanian	AUT	EFP	%	nördlich Gehöft Pemberger (III)
Papp 1955b	Orbitoides	media media	(d'Archiac)	59	Campanian	AUT	EFP	%	Sandsteinlagen bei Pemberger (IV)
Papp 1955b	Orbitoides	media megaloformis	Papp & Küpper	59	Campanian	AUT	EFP	%	Sandsteinlagen bei Pemberger (IV)
Papp 1955b	Orbitoides	jaegeri	Papp & Küpper	59	Campanian	AUT	EFP	%	Sandsteinlagen bei Pemberger (IV)
Papp 1955c	Orbitoides	media planiformis	n. ssp.	59	late Campanian	AUT	EFP	1(1,3-6); 3(1)	250 m S Strassenhöhe zwischen Dreistetten - Bad Fischau
Papp 1955c	Orbitoides	apiculata grünbachensis	n. ssp.	59	early Maastrichtian	AUT	EFP	2(1-4,6,8); 3(2)	Orbitoidensandsteine bei Grünbach
Papp 1955c	Orbitoides	apiculata grünbachensis	n. ssp.	59	early Maastrichtian	AUT	EFP	2(5,7,9,10,12)	Orbitoidensandsteine bei Krampen
Papp 1955c	Orbitoides	media media	(d'Archiac)	59	%	AUT	EFP	1(2)	Steinbruch Pemberger-Riegel bei Wietersdorf(Kärnten)
Papp 1955c	Orbitoides	media ssp. indet	%	59	early Maastrichtian	AUT	EFP	2(11)	Orbitoidensandsteine bei Grünbach
Papp 1955c	Orbitoides	cf. gensacica	(Leymerie)	59	early Maastrichtian	AUT	EFP	1(7)	Orbitoidensandsteine bei Grünbach
Papp 1956a	Orbitoides	media media	(d'Archiac)	59	Campanian	AUT	EFP	1(6)	Pemberger Sandsteine
Papp 1956a	Orbitoides	media	n. ssp.	59	Campanian	AUT	EFP	1(7)	Hagenbachklamm
Papp 1956a	Orbitoides	media	n. ssp.	31	Campanian	FRA	EFP	1(8)	St. George
Papp 1956a	Orbitoides	media megaloformis	Papp & Küpper	59	Campanian	AUT	EFP	1(9)	Hagenbachklamm
Papp 1956a	Orbitoides	apiculata tenuistriata	Douvillé	59	Maastrichtian	AUT	EFP	1(10,11)	Sievering-Gspöttgraben
Papp & Küpper 1953a	Orbitoides	jaegeri	n. sp.	59	unteres Orbitoides-Senon	AUT	EFP	1(1,2); 2(1)	Sandsteine Pemberger
Papp & Küpper 1953a	Orbitoides	jaegeri	n. sp.	59	%	AUT	EFP	2(2)	Seichtwasserkreide Wien-Sievering, Gspöttgraben
Papp & Küpper 1953a	Orbitoides	jaegeri	n. sp.	59	%	AUT	EFP	2(3)	Sandsteine Hagenbachklamm, Nordende bei Wien
Papp & Küpper 1953a	Orbitoides	aff. tissoti minima	(Vredenburg)	59	unteres Orbitoides-Senon	AUT	EFP	1(3,4); 3(1)	Sandsteine Pemberger
Papp & Küpper 1953a	Orbitoides	media media	(d'Archiac)	59	unteres Orbitoides-Senon	AUT	EFP	1(5-7); 2(4)	Sandsteine Pemberger
Papp & Küpper 1953a	Orbitoides	media media	(d'Archiac)	31	%	FRA	EFP	3(2); 4(1)	Bergerac
Papp & Küpper 1953a	Orbitoides	media megaloformis	n. ssp.	59	unteres Orbitoides-Senon	AUT	EFP	1(8,9)	Sandsteine Pemberger
Papp & Küpper 1953b	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	1(1,4)	Silberegg Steinbruch
Papp & Küpper 1953b	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	1(2)	Steinbruch auf der Höhe Pemberger-Riegel, WWietersdorf
Papp & Küpper 1953b	Orbitoides	tissoti minima	Vredenburg	59	Campanian	AUT	EFP	1(3)	Silberegg Steinbruch
Papp & Küpper 1953b	Orbitoides	tissoti minima	Vredenburg	59	Campanian	AUT	EFP	2(1)	Unter-Kirchwaldberg
Papp & Küpper 1953b	Orbitoides	tissoti tissoti	Schlumberger	59	Campanian	AUT	EFP	2(2)	Unter-Kirchwaldberg
Paquier 1904	Orbitoides	media	d'Archiac	31	Maastrichtian	FRA	EFP	%	Meaudre (Isère)
Pécheux 1984	Orbitoides	sp.	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	sp.	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	sp.	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	sp. cf. media	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	sp. cf. media	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	sp. cf. media	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
~~Pécheux 1984~~	~~Orbitoides~~	~~sp. cf. media~~	~~%~~	~~3~~	~~early Paleocene~~	~~MEX~~	~~CFP~~	~~%~~	~~Tuxtla Gutierrez~~
Pécheux 1984	Orbitoides	media	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	media	%	3	Campanian-Maastrichtian	MEX	CFP	7(40,41)	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	media	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Gutierrez
Pécheux 1984	Orbitoides	sp.	%		Campanian-Maastrichtian	MEX	CFP	%	La Trinitaria, P2
Rahaghi 1976	Orbitoides	orientalis	n. sp.	56	Campanian	IRN	AFP	4(1-16)	Région de Kermanshah
Rahaghi 1976	Orbitoides	tissoti	Schlumberger	56	Campanian	IRN	AFP	4(17-27)	Région de Kermanshah
~~Rahaghi 1976~~	~~Orbitoides~~	~~concavatus~~	~~n.sp.~~	~~56~~	~~Campanian~~	~~IRN~~	~~AFP~~	~~4(11-25)~~	~~Région de Kermanshah~~
Renz 1936	Orbitoides	media	(d'Archiac)	58	Maastrichtian	CHE	EFP	29(1); 31(1); 32(5,6)	Alfermée
Renz 1936	Orbitoides	media	(d'Archiac)	57	Maastrichtian	NLD	EFP	%	Maastricht
Renz 1936	Orbitoides	media	(d'Archiac)	31	Maastrichtian	FRA	EFP	%	Frankreich (Grenoble, Aquitaine)
Renz 1936	Orbitoides	media	(d'Archiac)	32	Maastrichtian	ESP	EFP	%	Spanien
Renz 1936	Orbitoides	media	(d'Archiac)		Maastrichtian	GRC	EFP	%	Balkanhalbinsel bis nach Kythera und Kreta, Rhodos
Renz 1936	Orbitoides	media	(d'Archiac)	69	Maastrichtian	ZYP	EFP	%	Cypern
Renz 1936	Orbitoides	media	(d'Archiac)		Maastrichtian	IND	ASP	%	Indien
Renz 1936	Orbitoides	apiculata	Schlumberger	31	Maastrichtian	FRA	EFP	%	Frankreich
Renz 1936	Orbitoides	apiculata	Schlumberger	35	Maastrichtian	ITA	EFP	%	Italien
Renz 1936	Orbitoides	apiculata	Schlumberger	36	Maastrichtian	GRC	EFP	%	Griechenland, Rhodos
Renz 1936	Orbitoides	apiculata	Schlumberger	69	Maastrichtian	ZYP	EFP	%	Cypern
Renz 1936	Orbitoides	apiculata	Schlumberger	58	Maastrichtian	CHE	EFP	30(1,2)	Alfermée
Renz 1955	Orbitoides	palmeri	Gravell	10	Maastrichtian	VEN	CFP	6(1-3)	Paso Copey, west of San Sebastián, State of Aragua
Richter & Mariolakos 1976	Orbitoides	media	(d'Archiac)	36	Maastrichtian	GRC	EFP	%	Skolis-Massiv, Peloponnes, Griechenlanc
Richter 1974	Orbitoides	sp.	%	36	late Maastrichtian	GRC	EFP	%	Peloponnes, Griechenland
Robinson 1974	Orbitoides	apiculata	%	%	Maastrichtian	%	CFP	%	Caribbean
Robinson 1974	Orbitoides	media	%	%	Campanian	%	CFP	%	Caribbean
Robinson 1974	Orbitoides	tissoti	%	%	Campanian	%	CFP	%	Caribbean
Rosales Dominguez et al. 1994	Orbitoides	sp.	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Orbitoides	media	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Orbitoides	media	%	3	late Campanian-Maastrichtian	MEX	CFP	4(5)	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Orbitoides	cf. tissoti	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Sartorio & Venturini 1988	Orbitoides	sp.	%	25	Maastrichtian	YEM	AFP	p. 124	Ras Sharweyn, P.D.R. of Yemen
Sartorio & Venturini 1988	Orbitoides	sp.	%	35	Maastrichtian	ITA	EFP	p. 125	Gianna 2 well, Adriatic Sea
Sartorio & Venturini 1988	Orbitoides	sp.	%	34	Maastrichtian	ITA	EFP	p. 125	Termini Imerese, Sicily
Sartorio & Venturini 1988	Orbitoides	sp.	%	35	Maastrichtian	ITA	EFP	p. 126	Emilio 5 well, Adriatic Sea
Sartorio & Venturini 1988	Orbitoides	sp.	%	25	Maastrichtian	YEM	AFP	p. 127, p. 129	Ras Sharweyn, P.D.R. of Yemen
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campaniano	CUB	CFP	25(1)	Camino vecinal Yaguaramas-Tierra Nueva-Alava; 3.15 kms. al NE del entronque con el circuito Sur, frente a la finca Ocujito, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	%	Camino Alava-Bidasoa; finca La Cienfueguera; 1.7 km. al NW del río Mayor, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	villasensis	sp. nov.	1	Maastrichtian	CUB	CFP	33(1)	Camino Alava-Bidasoa; finca La Cienfueguera; 1.7 km. al NW del río Mayor, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	%	Camino Viejo de Yaguaramas-Abreus; 2.3 kms. al WSW del Batey Cienaguita; 3 kms. al N de Algodones. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	%	Camino Real Viejo de Yaguaramas-Abreus; 400 m. al W del Batey Cienaguita. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata Schlumb. forma jaegeri	Papp & Küpper	1	Maastrichtian	CUB	CFP	%	Camino Real Viejo de Yaguaramas-Abreus; 400 m. al W del Batey Cienaguita. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	villasensis	nov. sp.	1	Maastrichtian	CUB	CFP	%	Camino Real Viejo de Yaguaramas-Abreus; 400 m. al W del Batey Cienaguita. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	cf. tissoti	Schlumberger	1	Campanian	CUB	CFP	%	Camino Viejo de Rodas-Abreus; 600 m al N del centro de Abreus, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	villasensis	nov. sp.	1	Maastrichtian	CUB	CFP	34(3)	Camino Serventia-Real Campina a finca Asturias; unos 480 m al NE del entronque con el Circuito Sur Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	%	480 m NE del entronque del camino Serventia del Real Campina-finca Asturias con el camino Circulatión del Hato Magdalena

Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%
Papp 1954	%	%	Sandstones	%
Papp 1955b	Fig. 1	Pseudorbitoides longispiralis, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Pseudorbitoides trechmanni, Lepidorbitoides minima, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Lepidorbitoides minima, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Lepidorbitoides minima, Siderolites calcitrapoides	%	%
Papp 1955b	Fig. 1	Pseudorbitoides longispiralis, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Pseudorbitoides trechmanni, Lepidorbitoides minima, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Lepidorbitoides minima, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Pseudorbitoides trechmanni, Lepidorbitoides minima, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Lepidorbitoides minima, Siderolites vidali	%	%
Papp 1955b	Fig. 1	Lepidorbitoides minima, Siderolites calcitrapoides	%	%
Papp 1955b	Fig. 1	Lepidorbitoides minima, Siderolites calcitrapoides	%	%
Papp 1955b	Fig. 1	Lepidorbitoides minima, Siderolites calcitrapoides	%	%
Papp 1955c	%	%	%	%
Papp 1955c	%	%	%	%
Papp 1955c	%	%	%	%
Papp 1955c	%	%	%	%
Papp 1955c	%	%	%	%
Papp 1955c	%	%	%	%
Papp 1956a	p.137	%	%	%
Papp 1956a	p.137	%	%	%
Papp 1956a	p.137	%	%	%
Papp 1956a	p.137	%	%	%
Papp 1956a	p.137	%	%	%
Papp & Küpper 1953a	%	%	%	%
Papp & Küpper 1953a	%	%	%	%
Papp & Küpper 1953a	%	%	%	%
Papp & Küpper 1953a	%	%	%	%
Papp & Küpper 1953a	%	%	%	%
Papp & Küpper 1953a	%	%	%	%
Papp & Küpper 1953a	%	%	%	%
Papp & Küpper 1953b	%	%	%	%
Papp & Küpper 1953b	%	%	%	%
Papp & Küpper 1953b	%	%	%	%
Papp & Küpper 1953b	%	%	%	%
Papp & Küpper 1953b	%	%	%	%
Paquier 1904	%	%	%	%
Pécheux 1984	p.13	Orbitocyclina, Asterorbis, Sulcoperculina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	p.13	Orbitocyclina, Asterorbis, Sulcoperculina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	p.13	Orbitocyclina, Sulcoperculina, ?Kathina, Pseudorbitoides	calcaires gréseux, s'y intercalent des niveaux marneux	%
Pécheux 1984	p.13	Orbitocyclina, Sulcoperculina, ?Kathina, Pseudorbitoides	calcaires gréseux, s'y intercalent des niveaux marneux	%
Pécheux 1984	p.13	Orbitocyclina, Sulcoperculina, ?Kathina, Pseudorbitoides	calcaires gréseux, s'y intercalent des niveaux marneux	%
Pécheux 1984	p.13	Orbitocyclina, Sulcoperculina, ?Kathina, Pseudorbitoides	calcaires gréseux, s'y intercalent des niveaux marneux	%
~~Pécheux 1984~~	~~p.13~~	~~Asterorbis, Sulcoperculina, Chubbina~~	~~conglomérats à élements de socle~~	~~foraminifères sont remaniés!~~
Pécheux 1984	p.13	Asterorbis, Orbitocyclina, Vaughanina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	p.13	Asterorbis, Orbitocyclina, Vaughanina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	p.13	Asterorbis, Orbitocyclina, Vaughanina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	p.13	Chubbina, Praealveolina, Sulcoperculina, ?Kathina	brèche massive, évoluant progressivement vers un calcaire à lithoclasts et bioclasts fin	%
Rahaghi 1976	%	%	%	%
Rahaghi 1976	%	%	%	%
~~Rahaghi 1976~~	~~%~~	~~%~~	~~%~~	~~laut Meric & Coruh (1991): Omphalocyclus und nicht Orbitoides~~
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	megasphärisch; Syn.: Orbitolites media, Orbitoides faujasii
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	megasphärisch; Syn.: Orbitolites media, Orbitoides faujasii
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	megasphärisch; Syn.: Orbitolites media, Orbitoides faujasii
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	megasphärisch; Syn.: Orbitolites media, Orbitoides faujasii
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	megasphärisch; Syn.: Orbitolites media, Orbitoides faujasii
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	megasphärisch; Syn.: Orbitolites media, Orbitoides faujasii
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	megasphärisch; Syn.: Orbitolites media, Orbitoides faujasii
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	DM bis 20 mm
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	DM bis 20 mm
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	DM bis 20 mm
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	DM bis 20 mm
Renz 1936	p. 545	%	gelbe und dunkelgraue Kalke	DM bis 20 mm
Renz 1955	p.69	Sulcoperculina, Vaughanina	%	
Richter & Mariolakos 1976	Dercourt 1964: p. 186	Globotruncana contusa, G. linnei, G. stuarti	calcaires microbrèchiques	%
Richter 1974	p. 108	%	mikrobrekziöse Kalke	%
Robinson 1974	%	%	normal marine	%
Robinson 1974	%	%	normal marine	%
Robinson 1974	%	%	normal marine	%
Rosales Dominguez et al. 1994	Page 30	Sulcoperculina, Asterorbis, Aktinorbitoides, Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Sulcoperculina, Asterorbis, Aktinorbitoides, Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Sulcoperculina, Asterorbis, Aktinorbitoides, Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Sulcoperculina, Asterorbis, Aktinorbitoides, Vaughanina	packstone con fragmentos biógenos	%
Sartorio & Venturini 1988	%	Loftusia	%	%
Sartorio & Venturini 1988	%	%	%	well
Sartorio & Venturini 1988	%	Siderolites calcitrapoides	%	%
Sartorio & Venturini 1988	%	Omphalocyclus macroporus	%	well
Sartorio & Venturini 1988	%	Lepidorbitoides, Siderolites calcitrapoides, Pseudedomia	%	%
Seiglie & Ayala-Castanares 1963	Page 5	Sulcoperculina	Caliza arenácea, blanco amarillenta, en capas de 10 pulgadas de espesor	%
Seiglie & Ayala-Castanares 1963	Page 5	Omphalocyclus, Asterorbis, Sulcoperculina	Caliza recristalizada, estratificada, blanco amarillenta, con numerosos foraminíferos en color blanco	%
Seiglie & Ayala-Castanares 1963	%	%	%	nicht in Liste der Lokalität
Seiglie & Ayala-Castanares 1963	Page 6	Omphalocyclus, Asterorbis, Vaughanina, Sulcoperculina	Caliza densa, dura, aporcelanada, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 6	Omphalocyclus, Asterorbis, Vaughanina, Sulcoperculina	Calizas duras, recristalizadas, blancas, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 6	Omphalocyclus, Asterorbis, Vaughanina, Sulcoperculina	Calizas duras, recristalizadas, blancas, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 6	Omphalocyclus, Asterorbis, Vaughanina, Sulcoperculina	Calizas duras, recristalizadas, blancas, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 7	%	Caliza dura, algo arenosa, color crema amarillento	%
Seiglie & Ayala-Castanares 1963	Page 7	Asterorbis	Calizas duras, recristalizadas en parte, color amarillento a pardo	%
Seiglie & Ayala-Castanares 1963	Page 7	Omphalocyclus, Asterorbis, Sulcoperculina	Calizas duras, recristalizadas en parte, color crema rosáceo, con macroforaminíferos	%

Seiglie & Ayala-Castanares 1963	Orbitoides	villasensis	nov. sp.	1	Maastrichtian	CUB	CFP	31(1,2); 32(1-3); 33(3); 34(1,2)	1 km de los Ferrocarriles Occidentales de Cuba; 4 km SE del Central Perseverancia 480 m NE del entronque del camino Sarentia del Real Campina-finca Asturias con el camino Circulatión del Hato Magdalena;
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	%	1 km de los Ferrocarriles Occidentales de Cuba; 4 km SE del Central Perseverancia Camino interior en finca Asturias a través del potrero; 450 m NE del Batey al S de Asturias, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	villasensis	sp. nov.	1	Maastrichtian	CUB	CFP	%	Camino interior en finca Asturias a través del potrero; 450 m NE del Batey al S de Asturias, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	%	Pozo Ranchuelo A, núcleo de 1152 a 1153 pies de profundidad
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	29(1)	Extremo NW de la loma Guayos, situada a 2.8 km al SE del pueblo de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata Schlumb. forma jaegeri	Papp & Küpper	1	Maastrichtian	CUB	CFP	30(1-2)	Extremo NW de la loma Guayos, situada a 2.8 km al SE del pueblo de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	villasensis	sp. nov.	1	Maastrichtian	CUB	CFP	33(2)	Extremo NW de la loma Guayos, situada a 2.8 km al SE del pueblo de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	media	(d'Archiac)	1	late Campanian to Maastrichtian	CUB	CFP	%	600 m al SSW de Chirino Prov. Matanzas
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	26(3,4)	5 km al S del trébol de la Via Monumental sobre la Vía Blanca, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Orbitoides	cf. tissoti	Schlumberger	1	Campanian	CUB	CFP	%	Camino de Cabeiguán a Neiva, aproximadamente 1.6 km antes de Neiva, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	%	Cantera San Juan Bosco en el antiguo camino de Sti. Spiritus-Zaza; a 2.75 km al ENE del entronque de la Carretera Central con el Central Tuinucú, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	%	Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	%	Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	%	%	25(1)	%
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	%	Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	%	%	26(1)	%
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	26(2); 27(1)	6.2 km de Fomento en el camino a Pedrero
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	%	6.2 km de Fomento en el camino a Pedrero; afloramiento al E del camino, antes de llegar a una casa, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	media	(d'Archiac)	1	late Campanian to Maastrichtian	CUB	CFP	27(2,3)	Camino de Fomento a Sta. Lucía, 200 m antes de llegar a La Redonda, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	media	(d'Archiac)	1	late Campanian to Maastrichtian	CUB	CFP	%	Poblado de Guamadito, en el camino de Fomento a Sta. Lucía, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	1	late Maastrichtian	CUB	CFP	%	Cantera en un mogote de caliza unos 2.5 km al SW de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata Schlumb. forma jaegeri	Papp & Küpper	1	Maastrichtian	CUB	CFP	%	Cantera en un mogote de caliza unos 2.5 km al SW de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Orbitoides	tissoti	Schlumberger	1	Campanian	CUB	CFP	%	Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Orbitoides	apiculata browni	(Ellis)	%	late Maastrichtian	%	%	26(1-5)	%
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Lamérac
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	La Guerie
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Barret
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	La Maison Neuve
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Le Caillaud
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Plage des Nonnes (Meschers-sur-Gironde;
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Noaillac (Saint-Astier)
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Neuvic
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Louniac, Route du Dognon
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Lembras
Séronie-Vivien 1972	Orbitoides	media	%	31	Maastrichtian	FRA	EFP	%	Route de Villereal (Beaumont-du-Périgord
Sirel 1991	Orbitoides	sp.	%	38	late Maastrichtian	TUR	EFP	%	Cide region
Sirel 1995	Orbitoides	tissoti	Schlumberger	38	Campanian	TUR	EFP	2(12-14); 3(9)	Menderler village, NE Bolu, NW Turkey
Sirel 1996	Orbitoides	apiculatus	%	38	Maastrichtian	TUR	EFP	%	Haymana basin, S of Ankara
Sirel 1996	Orbitoides	gensasicus	%	38	Maastrichtian	TUR	EFP	%	Haymana basin, S of Ankara
Sirel 1996	Orbitoides	apiculatus	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey
Sirel 1996	Orbitoides	apiculatus	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey
Sirel 1996	Orbitoides	apiculatus	%	38	Maastrichtian	TUR	EFP	%	Gölköy town, S of Ordu, Northern Turkey
Sirel 1996	Orbitoides	apiculatus	%	38	Maastrichtian	TUR	EFP	%	Peyamli hill, 8 km north of Dündarli town, SW of Kayseri
Sirel 1996	Orbitoides	apiculatus	%	38	Maastrichtian	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km west of Haymana town, S of Ankara
Sirel 1996	Orbitoides	gensasicus	%	38	Maastrichtian	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km west of Haymana town, S of Ankara
Sirel 1996	Orbitoides	sp.	%	38	Maastrichtian	TUR	EFP	%	Ovacuma village, Ulus town, NE of Zonguldak, Northern Turkey
Sun & Zhang 1983	Orbitoides	tissoti	Schlumberger	48	Campanian	CHN	ASP	%	Tethys-Himalayan southern sedimentary bel
Sun & Zhang 1983	Orbitoides	media	(d'Archiac)	48	Maastrichtian	CHN	ASP	%	Tethys-Himalayan southern sedimentary bel
van Gorsel 1973a	Orbitoides	media	(d'Archiac)	31	late Campanian	FRA	EFP	%	SE of Aubeterre
van Hinte 1968	Orbitoides	douvillei	(Silvestri)	31	late Santonian?	FRA	EFP	diverse	Belvès, SW France
Wannier 1983	Orbitoides	tissoti	%	32	Campanian	ESP	EFP	%	Santa Magdalena (Pobla de Segur), Catalogne
Wannier 1983	Orbitoides	media	%	31	Campanian	FRA	EFP	%	falaises de la Conche des Nonnes à Meschers (Royan)
Wannier 1983	Orbitoides	tissoti	%	58	Campanian	CHE	EFP	%	Niesengipfel
Visser 1951	Orbitoides	apiculata	Schlumberger	31	Maastrichtian	FRA	EFP	%	Maurens, France
Visser 1951	Orbitoides	apiculata	Schlumberger	58	late Cretaceous	CHE	EFP	%	Helvetic nappes, Bielersee, Switzerland
Visser 1951	Orbitoides	apiculata	Schlumberger	36	Maastrichtian	GRC	EFP	%	Thessalische Pindos, Leukas, Greece
Visser 1951	Orbitoides	apiculata	Schlumberger	59	Maastrichtian	AUT	EFP	%	Wienerwaldflysch, Austria
Visser 1951	Orbitoides	apiculata	Schlumberger	57	Hervian and Maastrichtian (Md)	NLD	EFP	%	South-Limburg, Holland
Visser 1951	Orbitoides	apiculata	Schlumberger	57	Maastrichtian	NLD	EFP	9(4)	Burgerwacht-quarry, St. Pietersberg
Visser 1951	Orbitoides	apiculata	(Schlumberger)	57	Maastrichtian	NLD	EFP	11(1)	Burgerwacht-quarry, St. Pietersberg
Visser 1951	Orbitoides	apiculata	(Schlumberger)	57	Maastrichtian	NLD	EFP	11(3)	Burgerwacht-quarry, St. Pietersberg
Visser 1951	Orbitoides	brinkae	nov. sp.	57	Maastrichtian	NLD	EFP	9(5)	under the fortress of Sint Pieter on the St. Pietersberg
Visser 1951	Orbitoides	brinkae	nov. sp.	57	Maastrichtian	NLD	EFP	11(2)	under the fortress of Sint Pieter on the St. Pietersberg
Visser 1951	Orbitoides	brinkae	nov. sp.	57	Maastrichtian	NLD	EFP	11(5)	Burgerwacht-quarry, St. Pietersberg
Weiss 1993	Orbitoides	tissoti	%	46	early Maastrichtian	PAK	ASP	8(1-6); 9(1,3,5)	Rakhi Nala section, Sulaiman Range, Northern Pakistan
Weiss 1993	Orbitoides	aff. media	%	46	early Maastrichtian	PAK	ASP	9(1)	Rakhi Nala section, Sulaiman Range, Northern Pakistan
Weiss 1993	Orbitoides	media	%	46	early Late Maastrichtian	PAK	ASP	%	Murrey Brewery Gorge section, Sulaiman Range, Northern Pakistan
Weiss 1993	Orbitoides	apiculata	%	46	early Late Maastrichtian	PAK	ASP	%	Murrey Brewery Gorge section, Sulaiman Range, Northern Pakistan
Wen 1987	Orbitoides	media	(d'Archiac)	48	Maastrichtian	CHN	ASP	%	SE of Gamba village to Zongshan and Jidula hill, Mt. Qomolangma Region
Wen 1987	Orbitoides	apiculata	Schlumberger	48	Maastrichtian	CHN	ASP	%	SE of Gamba village to Zongshan and Jidula hill, Mt. Qomolangma Region
Wen 1987	Orbitoides	sp.	%	48	Maastrichtian	CHN	ASP	%	SE of Gamba village to Zongshan and Jidula hill, Mt. Qomolangma Region
Wen 1987	Orbitoides	media	(d'Archiac)	48	Maastrichtian	CHN	ASP	%	SE of Gamba village to Zongshan and Jidula hill, Mt. Qomolangma Region
Wen 1987	Orbitoides	apiculata	Schlumberger	48	Maastrichtian	CHN	ASP	%	SE of Gamba village to Zongshan and Jidula hill, Mt. Qomolangma Region
Wen 1987	Orbitoides	media	(d'Archiac)	48	Maastrichtian	CHN	ASP	%	SE of Gamba village to Zongshan and Jidula hill, Mt. Qomolangma Region
Wen 1987	Orbitoides	tissoti	Schlumberger	48	Campanian	CHN	ASP	%	SE of Gamba village to Zongshan and Jidula hill, Mt. Qomolangma Region
Wen 1987	Orbitoides	media	(d'Archiac)	48	Maastrichtian	CHN	ASP	%	4 km E of Kamba village
Willems et al. 1996	Orbitoides	media	%	48	Maastrichtian	CHN	ASP	%	ca. 100 m north of Gamba, Tingri area, Tibet
Willems et al. 1996	Orbitoides	media	%	48	Middle Maastrichtian	CHN	ASP	%	Profile L, Section Tingri, Tibet
Zambetakis-Lekkas 1988	Orbitoides	tissoti	%	36	late Campanian-early Maastrichtian	GRC	EFP	%	Coupe de Myticas-Angelokastro
Zambetakis-Lekkas 1988	Orbitoides	tissoti	%	36	late Campanian-early Maastrichtian	GRC	EFP	%	Coupe de Kamenitsa
Zambetakis-Lekkas 1988	Orbitoides	media	%	36	late Campanian-early Maastrichtian	GRC	EFP	%	Coupe de Kamenitsa

Omphalocyclus

Publication	Genus	Species	Reference	Loc	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Abdelghany 2003	Omphalocyclus	macropora	Lamarck	23	late Campanian-Maastrichtian	OMN	AFP	fig.10,7,8; sample 2	northern Oman Mountains
Abdelghany 2003	Omphalocyclus	macropora	Lamarck	23	late Campanian-Maastrichtian	OMN	AFP	%	northern Oman Mountains
Abramovich et al. 2002	Omphalocyclus	macroporus	(Lamarck)	29	Campanian	MDG	AFP	3(11-13)	Berivotra, Mahajanga Basin, Madagascar
Al-Omari & Sadek 1976	Omphalocyclus	macropora	Lamarck	56	Maastrichtian	IRN	EFP	%	Iran
Al-Omari & Sadek 1976	Omphalocyclus	macropora	Lamarck	23	Maastrichtian	OMN	AFP	%	Oman

Seiglie & Ayala-Castanares 1963	Page 7	Omphalocyclus, Asterorbis, Sulcoperculina	Calizas duras, recristalizadas en parte, color crema rosáceo, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 8	Lepidorbitoides, Asterorbis, Sulcoperculina	Calizas duras, recristalizadas color blanco amarillento	%
Seiglie & Ayala-Castanares 1963	Page 8	Lepidorbitoides, Asterorbis, Sulcoperculina	Calizas duras, recristalizadas color blanco amarillento	%
Seiglie & Ayala-Castanares 1963	Page 8	Vaughanina	Caliza margosa, dura, uniforme, densa	%
Seiglie & Ayala-Castanares 1963	Page 10	Asterorbis, Vaughanina, Sulcoperculina	Caliza arrecifal, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 10	Asterorbis, Vaughanina, Sulcoperculina	Caliza arrecifal, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 10	%	%	nicht in Liste der Lokalität
Seiglie & Ayala-Castanares 1963	Page 10	Vaughanina, Sulcoperculina	Canto de caliza dura, redepositada en un conglomerado del Eoceno o Maastrichtiano	%
Seiglie & Ayala-Castanares 1963	Page 10	"Historbioides", Sulcoperculina	Canto en las calciruditas de la formación Penalver, "lime gravel"	%
Seiglie & Ayala-Castanares 1963	Page 11	Sulcorbitoides	Capas finas de calizas, interestratificadas con lutitas	%
Seiglie & Ayala-Castanares 1963	Page 11	Asterorbis, Vaughanina, Sulcoperculina	Caliza blanca a blanco-grisácea, masiva, dura	%
Seiglie & Ayala-Castanares 1963	Page 12	Vaughanina, Sulcoperculina, Miliolidae	Caliza masiva, color rosáceo, con numerosos foraminíferos	%
Seiglie & Ayala-Castanares 1963	Page 13	Vaughanina, Sulcoperculina	Caliza blanca, densa, masiva	%
Seiglie & Ayala-Castanares 1963	%	%	%	keine Angaben zu Lokalität
Seiglie & Ayala-Castanares 1963	Page 13	Sulcoperculina, Miliolidae	Caliza psseudo-oolítica	%
Seiglie & Ayala-Castanares 1963	%	%	%	keine Angaben zu Lokalität
Seiglie & Ayala-Castanares 1963	Page 13	Sulcoperculina	Caliza detrítica, masiva, con abundantes foraminíferos grandes	%
Seiglie & Ayala-Castanares 1963	Page 13	Monolepidorbis, Sulcoperculina, Miliolidae	Caliza amarillo-ocre, dura, masiva con abundante fauna da foraminíferos grandes	%
Seiglie & Ayala-Castanares 1963	Page 14	Sulcoperculina	Caliza dura, masiva, color crema-amarillento a camelita grisáceo con foraminíferos grandes	%
Seiglie & Ayala-Castanares 1963	Page 14	Pseudorbitoides, Ayalaina	Conglomerado calcáreo gris, con abundantes foraminíferos grandes	%
Seiglie & Ayala-Castanares 1963	Page 14	Asterorbis, Vaughanina	Caliza masiva, blanca o gris, densa, dura con abundantes macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 14	Asterorbis, Vaughanina	Caliza masiva, blanca o gris, densa, dura con abundantes macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 15	Omphalocyclus, Lepidorbitoides, Asterorbis, Pseudorbitoides, Vaughanina, Sulcoperculina	Calcirudita a calcarenita, dura, consolidada, color gris claro	%
Seiglie & Ayala-Castanares 1963	%		%	keine Lokalität angegeben
Séronie-Vivien 1972	p.54	Siderolites	Calcaire tuffacé	Zone à Orbitoides media et A. monterelensis
Séronie-Vivien 1972	p.55	Dictyopsella, Nummofallotia, Siderolites	Calcaire jaune, très friable	Zone à Orbitoides media
Séronie-Vivien 1972	p.56	Nummofallotia, Siderolites	Marnes légèrement glauconieuses	Zone à Orbitoides media
Séronie-Vivien 1972	p.57	Nummofallotia, Siderolites	Calcaire marneux blanc jaunatre	Zone à Orbitoides media
Séronie-Vivien 1972	p.58	Dictyopsella, Nummofallotia, Siderolites	Marne calcaire jaune blanchatre	Zone à Orbitoides media
Séronie-Vivien 1972	p.69	Nummofallotia, Siderolites	%	Zone à Orbitoides media et A. monterelensis
Séronie-Vivien 1972	p.72	Dictyopsella, Nummofallotia, Siderolites	Calcaire tuffacé jaune clair	Zone à Orbitoides media
Séronie-Vivien 1972	p.93	Siderolites	Calcaire biocl.grav. Glauc	%
Séronie-Vivien 1972	p.94	Dictyopsella, Nummofallotia, Siderolites	Calcaire crayeux, blanc, lité, niveaux de sile	Zone à Orbitoides media
Séronie-Vivien 1972	p.106	%	Calcaire gréseux, jaune, en plaquettes	%
Séronie-Vivien 1972	p.107	%	Calcaire noduleux	Zone à Orbitoides media
Séronie-Vivien 1972	p.126	Nummofallotia	Calcaire bioclastique et graveleux	Zone à Orbitoides media
Sirel 1991	fig.1	Siderolites, Sirtina, Omphalocyclus, Hellenocyclina, Lepidorbitoides, Navarella	light gray limestone, green and dark red siltstone, tuffit intercalation	%
Sirel 1995	%	%	sandy limestone	%
Sirel 1996	fig.1	Loftusia, Siderolites, Hellenocyclina, Laffitteina, Sirtina	Sandstone, sandy limestone, argillaceous limestone	%
Sirel 1996	fig.1	Loftusia, Siderolites, Hellenocyclina, Laffitteina, Sirtina	Sandstone, sandy limestone, argillaceous limestone	%
Sirel 1996	fig.1	Omphalocyclus, Siderolites, Hellenocyclina, Loftusia, Laffitteina	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	fig.1	Omphalocyclus, Siderolites, Hellenocyclina, Loftusia, Laffitteina	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	fig.1	Siderolites, Hellenocyclina, Omphalocyclus	limestones	%
Sirel 1996	fig.1	Loftusia, Siderolites, Hellenocyclina, Laffitteina, Omphalocyclus	limestone; shallow water	%
Sirel 1996	fig.1	Omphalocyclus, Siderolites, Hellenocyclina, Laffitteina, Sirtina	limestone; shallow water	%
Sirel 1996	fig.1	Omphalocyclus, Siderolites, Hellenocyclina, Laffitteina, Sirtina	limestone; shallow water	%
Sirel 1996	fig.1	Omphalocyclus	limestone; shallow water	%
Sun & Zhang 1983	fig. 1	%	limestone with calcareous shale	%
Sun & Zhang 1983	fig. 1	Omphalocyclus macroporus	shallow-water limestone; shallow water	%
van Gorsel 1973a	figs. 1,2	Lepidorbitoides, Orbitoides, Nummofallotia	%	%
van Hinte 1968	%	%	%	type species of Schlumbergeria
Wannier 1983	%	%	%	%
Wannier 1983	%	%	%	%
Wannier 1983	%	Helicorbitoides longispiralis	%	%
Visser 1951	p.295	%	%	%
Visser 1951	p.295	%	%	%
Visser 1951	p.295	%	%	%
Visser 1951	p.295	%	%	%
Visser 1951	p.295	%	%	%
Visser 1951	p.205	%	very light-yellow fossil-waste-bed	%
Visser 1951	p.205	%	light-yellow soft marl	%
Visser 1951	p.205	%	light-yellow soft marl	%
Visser 1951	p.204	%	light-yellow Bryozoa-bed	%
Visser 1951	p.204	%	light-yellow Bryozoa-bed	%
Visser 1951	p.204	%	yellow rather soft marl	%
Weiss 1993	fig. 1	Omphalocyclus	Limestone	Orbitoides media - Omphalocyclus macroporus Assemblage
Weiss 1993	fig. 1	Omphalocyclus	Limestone	Orbitoides media - Omphalocyclus macroporus Assemblage
Weiss 1993	fig. 1	Siderolites	Limestone	Siderolites calcitrapoides - Orbitoides media Assemblage
Weiss 1993	fig. 1	Siderolites	Limestone	Siderolites calcitrapoides - Orbitoides media Assemblage
Wen 1987	fig. 9.2	%	grey medium-bedded dense sandy limestone	%
Wen 1987	fig. 9.2	Omphalocyclus macroporus	grey thick-bedded limestone	%
Wen 1987	fig. 9.2	Omphalocyclus macroporus	grey thick-bedded limestone	%
Wen 1987	fig. 9.2	Omphalocyclus macroporus	grey thick-bedded limestone	%
Wen 1987	fig. 9.2	Omphalocyclus macroporus	dark grey limestone	%
Wen 1987	fig. 9.2	Omphalocyclus macroporus	dark grey limestone	%
Wen 1987	fig. 9.2	Sulcoperculina inaequalis	grey thin-bedded calcareous shale intercalated with marl	%
Wen 1987	fig. 9.4	Omphalocyclus macroporus	grey thick-bedded limestone	%
Willems et al. 1996	fig.2	Omphalocyclus	diverse	%
Willems et al. 1996	fig.2	Omphalocyclus	%	Gansseri- Biozone
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%

Omphalocyclus

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Abdelghany 2003	Fig. 1	Loftusia, Orbitoides, Lepidorbitoides	limestone, pink limestone	%
Abdelghany 2003	Fig. 1	Orbitoides, Lepidorbitoides	limestone, pink limestone	%
Abramovich et al. 2002	%	%	upper photic zone	%
Al-Omari & Sadek 1976	%	Siderolites, Orbitoides, Loftusia	%	%
Al-Omari & Sadek 1976	%	Siderolites, Loftusia	%	%

Al-Omari & Sadek 1976	Omphalocyclus	macropora	(Lamarck)	27	Maastrichtian	IRQ	AFP	%	Iraq
Azema et al. 1979	Omphalocyclus	macroporus	(Lamarck)	32	Maastrichtian	ESP	EFP	38(2)	Sierra de la Arguena (Prebetic)
Azema et al. 1979	Omphalocyclus	macroporus	(Lamarck)	32	Maastrichtian	ESP	EFP	41(20)	Calarejos (Sierra del Segura)
Bignot 1972	Omphalocyclus	macroporus	%	63	late Maastrichtian	SVN	EFP	%	Le Nanos; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Omphalocyclus	macroporus	%	62	Maastrichtian	HRV	EFP	%	Coupe de Ravnica
Brönnimann 1954b	Omphalocyclus	macroporus	%	1	Maastrichtian	CUB	CFP	%	Oriente Province; Cuba
Brönnimann 1954b	Omphalocyclus	macroporus	%	1	%	CUB	CFP	%	Palmer Station 1214, Gravell Station 7876; Cuba
Brönnimann 1954b	Omphalocyclus	macroporus	%	1	%	CUB	CFP	%	Brönnimann Station 10; Cuba
Butterlin 1967	Omphalocyclus	macroporus	(Lamarck)	36	late Maastrichtian	GRC	EFP	%	du col d'altitude 860m à Kedronas, Grèce
Butterlin 1981	Omphalocyclus	macroporus	(Lamarck)		Maastrichtian; late Maastrichtian (?)	MEX	CFP	35(4,5)	Mexico, Caribe
Caudri 1944	Omphalocyclus	macropora	Brown	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1944	Omphalocyclus	sp. ind.	%	1	Maastrichtian	CUB	CFP	%	Cuba
Caus 1988	Omphalocyclus	sp.	%	32	Maastrichtian	ESP	EFP	%	Pyrenean basin
Caus & Cornella 1983	Omphalocyclus	macroporus	%	32	Maastrichtian; 70-<70 Ma	ESP	EFP	%	Sierra del Montsec, Sierras Marginales; bassin sud-pyrénéen
Caus & Hottinger 1986	Omphalocyclus	sp.	%	%	Santonian-Campanian	%	%	%	Tethys
Caus & Hottinger 1986	Omphalocyclus	sp.	%	%	Campanian	%	%	%	Oriente Medio
Caus & Hottinger 1986	Omphalocyclus	sp.	%	%	Maastrichtian	%	%	%	todo el Tethys
Caus & Hottinger 1986	Omphalocyclus	sp.	%	%	Maastrichtian	%	%	%	zona del Caribe
Caus et al. 1996	Omphalocyclus	macroporus	%	32	early Maastrichtian	ESP	EFP	%	South Pyrenean
Caus et al. 1996	Omphalocyclus	macroporus	%	31	middle-late Maastrichtian	FRA	EFP	%	North Pyrenean
Cox 1937	Omphalocyclus	macropora	%	56	%	IRN	EFP	%	Iran
Cox 1937	Omphalocyclus	macropora	%	23	%	OMN	AFP	%	Jabal al Abyadh, near Yanqul (Oman Peninsular)
Cox 1937	Omphalocyclus	macropora	%	56	%	IRN	EFP	%	Gavara, Province of Kirmanshah
Cox 1937	Omphalocyclus	macropora	%	56	%	IRN	EFP	%	Gavara, Province of Kirmanshah
Cox 1937	Omphalocyclus	macropora	%	56	%	IRN	EFP	%	Kuh-i-Abbagh, Bakhtiari Country
Dilley 1973	Omphalocyclus	sp.	Bronn		Maastrichtian	%	%	%	N America, Central America, N Europe, S Europe, N Africa, Middle East, S USSR, India
Douvillé 1904	Omphalocyclus	macropora	%	56	Maastrichtian	IRN	EFP	%	Louristan
Douvillé 1904	Omphalocyclus	macropora	%	56	late Maastichtian	IRN	EFP	%	Louristan, 40 km à l'ouest du Kouh Mapeul, 60 km au sud-est de Kirmanchan
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	18	Maastrichtian	LBY	AFP	(1)	Djebel Ferdjan, Libya
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	48	late Maastrichtian	CHN	ASP	(2-4)	Tibet
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	57	Dordonian	NLD	EFP	(5)	Maastricht
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	57	Maastrichtian	NLD	EFP	(6-15)	Maastricht
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	18	Senonian	LBY	AFP	(16-21)	Chescen Mesida, Libya
~~Ellis & Messina 1967~~	~~Omphalocyclus~~	~~macroporus~~	~~(Lamarck)~~	~~1~~	~~late Eocene~~	~~CUB~~	~~CFP~~	~~(22-23)~~	~~Banos, Cuba~~
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	58	Maastrichtian	CHE	EFP	(24-25)	Swiss
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	57	Maastrichtian	NLD	EFP	(26)	Maastricht
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	57	Maastrichtian	NLD	EFP	(27-28)	Limburg
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	16	Maastrichtian	DZA	AFP	(31-32)	N Algeria
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	31	Maastrichtian	FRA	EFP	(34-41)	France
Ellis & Messina 1967	Omphalocyclus	macroporus	(Lamarck)	57	Maastrichtian	NLD	EFP	(34-41)	Holland
Fleury 1977	Omphalocyclus	macroporus	%	36	Maastrichtian	GRC	EFP	%	coupe du Mavrovouni, Griechenlanc
Fleury et al. 1985	Omphalocyclus	sp.	%	%	Maastrichtian	%	%	%	Caribbean, Nouvelle-Guinee, southern Europe, northern Africa, l'Arabie, Tibet, Birma
Fleury et al. 1990	Omphalocyclus	macroporus	%	63	Maastrichtian	SVN	EFP	%	Yougoslavie septentrionale
Fleury et al. 1990	Omphalocyclus	macroporus	%	38	%	TUR	EFP	%	Turquie centrale
Fleury et al. 1990	Omphalocyclus	macroporus	%	37	%	YUG	EFP	%	Serbie occidentale
Fleury et al. 1990	Omphalocyclus	macroporus	%	36	%	GRC	EFP	%	Grèce orientale
Fleury et al. 1990	Omphalocyclus	macroporus	%	38	%	TUR	EFP	%	Taurus oriental
Fleury et al. 1990	Omphalocyclus	macroporus	%	28	%	SYR	AFP	%	Syrie
Fleury et al. 1990	Omphalocyclus	macroporus	%	27	%	IRQ	AFP	%	Irak
Fleury et al. 1990	Omphalocyclus	macroporus	%	56	%	IRN	EFP	%	Iran
Fleury et al. 1990	Omphalocyclus	macroporus	%	24	%	QAT	AFP	%	Qatar
Fleury et al. 1990	Omphalocyclus	macroporus	%	25	%	YEM	AFP	%	Yémen
Fleury et al. 1990	Omphalocyclus	macroporus	%	26	%	SOM	AFP	%	Somalie
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	10(1,3); 12(1,6a)	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	10(2,4); 12(3b, 5d); 15(5a)	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	11(1a, 4a); 12(2a, 7, 8b)	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	15(2)	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Gaetani et al. 1980	Omphalocyclus	macroporus	(Lamarck)	45	late Maastrichtian	IND	ASP	%	Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Grossouvre 1904	Omphalocyclus	macropora	%	57	Cretaceous	NLD	EFP	%	Maastricht
Grossouvre 1904	Omphalocyclus	disculus	%	31	late Cretaceous	FRA	EFP	%	Audignon
Grossouvre 1904	Omphalocyclus	disculus	%	31	late Cretaceous	FRA	EFP	%	Roquefort, Laudiras, Villagrains
Grossouvre 1904	Omphalocyclus	macropora	%	31	late Cretaceous	FRA	EFP	%	Haute-Garonne
Grossouvre 1904	Omphalocyclus	disculus	%	31	late Cretaceous	FRA	EFP	%	Haute-Garonne
Gunter et al. 2002	Omphalocyclus	maldonensis	n. sp.	6	late Maastrichtian	JAM	CFP	1(1-6)	9 m below the top of the Maldon Limestone, minor road ca. 78 m of the junction at Maroon Town, Parish of St James; W Jamaica
Hagn 1971	Omphalocyclus	sp.	%	33	Maastricht	DEU	EFP	%	Almagmach SW Immenstadt, Allgäu
Hamaoui & Fourcade 1973	Omphalocyclus	macroporus	%	41	late Maastrichtian	ROM	EFP	6(8,9)	Carpatos
Hamaoui & Fourcade 1973	Omphalocyclus	macroporus	%	36	late Maastrichtian	GRC	EFP	6(8,9)	Grèce
Hanzawa 1962	Omphalocyclus	macropora	(Lamarck)	1	%	CUB	CFP	1(36)	Cuba
Hanzawa 1962	Omphalocyclus	macropora	(Lamarck)	%	%	%	%	1(37)	%
Hanzawa 1962	Omphalocyclus	sp.	%	%	Maestrichtian	%	%	1(36-37)	%
Hashimoto 1982	Omphalocyclus	sp.	%	65	late Cretaceous	PHL	ASP	%	Pinugay, Tanay, Rizal
Hashimoto et al. 1978a	Omphalocyclus	macroporus	(Lamarck)	65	?Cretaceous-Paleocene?	PHL	ASP	8(5-6)	Pinugay Hill, Tanay, Rizal, Central Luzon
Hashimoto et al. 1978b	Omphalocyclus	macroporus	(Lamarck)	65	Cretaceous	PHL	ASP	%	near the Pandan High School, Bo. Pandan.; on the Naga-Uling Road; Cebu
Hashimoto & Matsumaru 1981	Omphalocyclus	macroporus	(Lamarck)	65	late Maastrichtian	PHL	ASP	15(3)	5 km north of Bato, southeastern Luzon
Hashimoto & Matsumaru 1984	Omphalocyclus	sp.	%	65	Cretaceous	PHL	ASP	%	Pinugay Hill, Tanay, Rizal
Hashimoto & Matsumaru 1984	Omphalocyclus	macroporus	%	65	%	PHL	ASP	%	Barrios Lutak & Pandan, Pandan Valley, Central Cebu
Hashimoto & Matsumaru 1984	Omphalocyclus	macroporus	%	65	Maastrichtian	PHL	ASP	%	north of San Miguel, Catanduanes
Ho et al. 1976	Omphalocyclus	macroporus	(Lamarck)	48	Maastrichtian	CHN	ASP	10(9-16)	Mount Jolmo Lungma region (Mt. Everest)
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	Albert Canal, cutting of Caster and Vroenhover
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	drill-hole Terblijt, G.B. 3525
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	quarry Franssen-Nelissen
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	de Tombe (37)
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	Well Fortress St. Pieter, drill-hole G.B. 194 (40)
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	quarry van der Zwaan (41)
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	drill-hole Sibbe, G.B. 3621 (43)

Al-Omari & Sadek 1976	Fig. 1	Loftusia, Orbitoides, Cuneolina	limestones; shoal reefal facies	%
Azema et al. 1979	%	Navarella, Lepidorbitoides	biomicritic limestone (wackestone); open platform environment	%
Azema et al. 1979	%	%	%	%
Bignot 1972	Fig. 48,49	Orbitoides, Lepidorbitoides	calcaires gris	%
Bignot 1972	Fig. 52	Siderolites	Flysch gris avec bancs microconglomèratiques	Flyschalter: Thanétien terminal ou Yprésien basal
Brönnimann 1954b	%	Vaughanina, Orbitoides, Lepidorbitoides, Sulcoperculina	%	%
Brönnimann 1954b	%	Sulcoperculina, Orbitoides	%	%
Brönnimann 1954b	%	Vaughanina, Sulcoperculina, Cuneolina	%	%
Butterlin 1967	%	Orbitoides, Sulcoperculina, Lepidorbitoides, Siderolites	%	%
Butterlin 1981	%	%	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Lepidorbitoides, ?Meandropsina	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Lepidorbitoides, ?Meandropsina	%	%
Caus 1988	%	%	terrigeneous platform, protected shelf area	%
Caus & Cornella 1983	%	Siderolites, Dictyopsella, Cuneolina	%	%
Caus & Hottinger 1986	%	%	%	%
Caus & Hottinger 1986	%	%	%	%
Caus & Hottinger 1986	%	%	%	%
Caus & Hottinger 1986	%	%	%	%
Caus et al. 1996	%	Orbitoides, Siderolites, Lepidorbitoides	%	%
Caus et al. 1996	%	Orbitoides, Siderolites, Lepidorbitoides	%	%
Cox 1937	%	Loftusia, Siderolites calcitrapoides	%	%
Cox 1937	%	Loftusia, Siderolites sp.	%	%
Cox 1937	%	Loftusia morgani, Orbitoides apiculata	%	Core depth: 800 ft-2230 ft
Cox 1937	%	Loftusia elongata, Orbitoides cf. media	%	Core depth: 2690 ft-3040 ft
Cox 1937	%	Siderolites calcitrapoides, Orbitoides cf. media	%	Core depth: ~ 1000 ft
Dilley 1973	Table 2	%	%	%
Douvillé 1904	%	Orbitoides	%	%
Douvillé 1904	%	Loftusia	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
~~Ellis & Messina 1967~~	~~%~~	~~%~~	~~%~~	~~%~~
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Fleury 1977	Fig. 1	Siderolites	%	%
Fleury et al. 1985	Page 760	%	%	%
Fleury et al. 1990	%	Loftusia, Orbitoides, Siderolites, Lepidorbitoides	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Gaetani et al. 1980	Fig. 1	%	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	%	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	Meandropsina?	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	%	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	Siderolites	shallowing upwards succession in which terrigenous supply gradually decreases upwards	out of place
Gaetani et al. 1980	Fig. 1	%	shallowing upwards succession in which terrigenous supply gradually decreases upwards	%
Gaetani et al. 1980	Fig. 1	%	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	%	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	%	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	Meandropsina?	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	%	depressed area surrounded by shallowwater complex, poorly oxygenated conditions	%
Gaetani et al. 1980	Fig. 1	%	quartz-rich siltites and silty marls; shallowing upwards succession in which terrigenous supply gradually decreases upwards	out of place
Gaetani et al. 1980	Fig. 1	%	%	%
Grossouvre 1904	%	Orbitoides	%	%
Grossouvre 1904	%	Orbitoides	%	%
Grossouvre 1904	%	Orbitoides	%	%
Grossouvre 1904	%	Orbitoides	%	%
Grossouvre 1904	%	Orbitoides	%	%
Gunter et al. 2002	Page 150	Orbitoides	shallowtropical sea, close to active volcanoes of a Cretaceous island-arc complex	%
Hagn 1971	Page 20	Orbitoides, Siderolites, Lepidorbitoides	Nagelfluhbänke, rote und graue Mergel	%
Hamaoui & Fourcade 1973	%	%	%	%
Hamaoui & Fourcade 1973	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	Type species: Orbulites macropora Lamarck
Hashimoto 1982	%	Pseudorbitoides; G. stuarti	sandstone conglomerate	G. stuarti zone
Hashimoto et al. 1978a	Txt-fig. 1-3	Lepidorbitoides, Orbitoides, Pseudorbitoides, Siderolites	sharpstone-bearing conglomeratic sst.	Globotruncana lapparenti, G. sp.
Hashimoto et al. 1978b	Txt-fig. 1,2	Lepidorbitoides	%	Globotruncana lapparenti, G. sp.
Hashimoto & Matsumaru 1981	Page 64	Lepidorbitoides	gray limestone	%
Hashimoto & Matsumaru 1984	%	%	%	%
Hashimoto & Matsumaru 1984	%	Lepidorbitoides	%	Globotruncana lapparenti, G. sp.
Hashimoto & Matsumaru 1984	%	Lepidorbitoides	grey limestone	%
Ho et al. 1976	%	Orbitoides	%	%
Hofker 1966	p.84;fig.53,1-2,fig.95	%	%	%
Hofker 1966	p.126,fig. 66	%	%	%
Hofker 1966	p.130,figs.85,1;86	%	%	%
Hofker 1966	p.133,figs.92,93	%	%	%
Hofker 1966	p.159,figs.96,1;97	%	%	%
Hofker 1966	p.159,figs.96,2;98	%	%	%
Hofker 1966	p.171;fig.100	%	%	%

Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	quarry Curfs (44)
Hofker 1966	Omphalocyclus	macroporus	%	30	Dano-Maastrichtian	BEL	EFP	%	Albert Canal, cutting of Vroenhoven, Belgium (48)
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	Kunrade Chalk (55)
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	Welterberg, well I and well II (58)
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	shaft I + II, State mine Emma (62)
~~Hofker 1966~~	~~Omphalocyclus~~	~~macroporus~~	~~%~~	~~57~~	~~Paleocene~~	~~NLD~~	~~EFP~~	~~%~~	~~drill-hole Puth, S.M. XVII (64)~~
Hofker 1966	Omphalocyclus	macroporus	%	57	Dano-Maastrichtian	NLD	EFP	%	drill-hole Geleen-Centrum, S.M. XVI (66)
Hottinger 1966	Omphalocyclus	macropora	Lamarck	32	Maastrichtian	ESP	EFP	%	Bco. del Bosque, Sierra del Montsech
Hottinger 1981	Omphalocyclus	macroporus	(Lamarck)	56	Maastrichtian	IRN	EFP	1(1-4); 2(1-3)	Iran
Hottinger 1997	Omphalocyclus	sp.	%	%	Campanian, Maastrichtian	%	%	%	%
Inan 1996a	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Koyulhisar-Sivas
Inan 1996b	Omphalocyclus	macroporus	Lamarck	38	Maastrichtian	TUR	EFP	%	Turkey
Inan et al. 1996	Omphalocyclus	macroporus	(Lamarck)	38	%	TUR	EFP	3(11)	Karacam Highland, Niksar
Ion 1975	Omphalocyclus	sp.	%	41	late Maastrichtian	ROM	EFP	%	Risnov
Ismail & Boukhary 2001	Omphalocyclus	macropora	%	20	Campanian	EGY	AFP	3(5-7)	Southern Galala Plateau
Ismail & Boukhary 2001	Omphalocyclus	sp.	%	18	late Cretaceous	LBY	AFP	%	Libya
Ismail & Boukhary 2001	Omphalocyclus	sp.	%	48	late Maastrichtian	CHN	ASP	%	Tibet
Ismail & Boukhary 2001	Omphalocyclus	sp.	%	57	Maastrichtian	NLD	EFP	%	Holland
Ismail & Boukhary 2001	Omphalocyclus	sp.	%	1	Maastrichtian	CUB	CFP	%	Cuba
Ismail & Boukhary 2001	Omphalocyclus	sp.	%	58	%	CHE	EFP	%	Switzerland
Ismail & Boukhary 2001	Omphalocyclus	sp.	%	16	%	DZA	AFP	%	N. Algeria
Ismail & Boukhary 2001	Omphalocyclus	sp.	%	46	%	PAK	ASP	%	W. Pakistan
Kalantari 1976	Omphalocyclus	macroporus	%	56	Maastrichtian	IRN	EFP	24(1)	Sarvestan area
Kalantari 1976	Omphalocyclus	macroporus	%	56	Maastrichtian	IRN	EFP	26(1)	Sarvestan area
Kalantari 1976	Omphalocyclus	macroporus	Lamarck	56	Maastrichtian	IRN	EFP	27(20,21)	Sarvestan area
Kalkreuth et al. 1976	Omphalocyclus	sp.	%	36	late Cretaceous	GRC	EFP	%	SW Potami bei Bachgabelung, südl. Argolis-Halbinsel, Peloponnes, Griechenland; Lat: 70016, Long: 415384
Küpper 1954b	Omphalocyclus	macropora	(Lamarck)	1	late Cretaceous	CUB	CFP	33(1)	near Coliseo, Mantanzas Province, Cuba
Küpper 1954b	Omphalocyclus	schlumbergeri	(Silvestri)	1	late Cretaceous	CUB	CFP	33(2)	near Coliseo, Mantanzas Province, Cuba
Küpper 1954b	Omphalocyclus	sp.	%	31	late Cretaceous	FRA	EFP	34(3)	St. Marcet, Haute Garonne
Kureshy 1977	Omphalocyclus	macropora	(Lamarck)	46	Maastrichtian	PAK	ASP	%	Lakhi Range, Sind
Kureshy 1977	Omphalocyclus	macropora	(Lamarck)	46	late Campanian - early Maastrichtian	PAK	ASP	%	Murree Brewery, Baluchistan
Kureshy 1977	Omphalocyclus	macropora	(Lamarck)	46	late Campanian - early Maastrichtian	PAK	ASP	%	Harnai, Baluchistan
Kureshy 1977	Omphalocyclus	macropora	(Lamarck)	46	early Maastrichtian	PAK	ASP	%	Harnai, Baluchistan
Kureshy 1980	Omphalocyclus	macropora	(Lamarck)	46	Campanian-Maastrichtian	PAK	ASP	%	Pakistan
LeBlanc 2000	Omphalocyclus	macroporus	%	18	Cretaceous	LBY	AFP	%	Al Hamadah (Ghadamis) basin, Libya; along the southwestern border of the Hon graben (=Djofra graben) on the western margin of the Sirte Basin
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	31	Maastrichtian	FRA	EFP	%	France
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	57	Maastrichtian	NLD	EFP	%	Netherlands
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	58	Maastrichtian	CHE	EFP	%	Switzerland
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	35	Maastrichtian	ITA	EFP	%	Italy
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	36	Maastrichtian	GRC	EFP	%	Greece
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	75	Maastrichtian	YUG	EFP	%	Yugoslavia
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	41	Maastrichtian	ROM	EFP	%	Romania
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	38	Maastrichtian	TUR	EFP	%	Turkey
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	56	Maastrichtian	IRN	EFP	%	Iran
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	28	Maastrichtian	SYR	AFP	%	Syria
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	17	Maastrichtian	TUN	AFP	%	Tunisia
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn		Maastrichtian	IND	ASP	%	India
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	48	Maastrichtian	CHN	ASP	%	Tibet
Loeblich & Tappan 1988	Omphalocyclus	sp.	Bronn	1	Maastrichtian	CUB	CFP	%	Cuba
Loeblich & Tappan 1988	Omphalocyclus	macroporus	(Lamarck)	56	Maastrichtian	IRN	EFP	734(3-5); 735(1-2)	Iran
McGowran 1968	Omphalocyclus	sp.	%	46	Maastrichtian	PAK	ASP	%	Sind, West Pakistan
McGowran 1968	Omphalocyclus	sp.	%	46	late Cretaceous	PAK	ASP	%	South of Sulaiman Range, West Pakistan
McGowran 1968	Omphalocyclus	sp.	%	46	Maastrichtian	PAK	ASP	%	Salt Range, West Pakistan
Meric 1967	Omphalocyclus	macroporus	(Lamarck)	38	late Maastrichtian	TUR	EFP	1(1,4-9); 2(2-7,9-11); 3(2,5,6); 4(3,4,12,13)	Cörtinek, Kahta, Adiyaman
Meric 1967	Omphalocyclus	macroporus	(Lamarck)	38	late Maastrichtian	TUR	EFP	1(2,3,11); 2(1)	Karadut, Kahta, Adiyaman
Meric 1967	Omphalocyclus	macroporus	(Lamarck)	38	late Maastrichtian	TUR	EFP	1(10); 2(8,12); 3(1,3,4,8,10,11); 4(1,2,7-10,11)	Silivanka, Siirt
Meric 1967	Omphalocyclus	macroporus	(Lamarck)	38	late Maastrichtian	TUR	EFP	3(7,9,12); 4(5,6)	Malabadi, Siirt
Meric & Görmüs 2001	Omphalocyclus	macroporus	(Lamarck)	38	%	TUR	EFP	18(1,2)	Malabadi-Siirt, Turkey
Meric et al. 2001	Omphalocyclus	macroporus	%	56	Maastrichtian	IRN	EFP	%	Iran
Meric et al. 2001	Omphalocyclus	macroporus	%	23	Maastrichtian	OMN	AFP	%	Oman
Meric et al. 2001	Omphalocyclus	macroporus	%	22	Maastrichtian	SAU	AFP	%	Saudi Arabia
Meric et al. 2001	Omphalocyclus	macroporus	%	38	middle-late Maastrichtian	TUR	EFP	%	SE Anatolia and other parts of Turkey
Meric et al. 1997	Omphalocyclus	macroporus	%	38	late Cretaceous	TUR	EFP	%	North of Asmayaylasi Village and Southeast of Sereflikochisar, Central Anatolia
Mu et al. 1973	Omphalocyclus	macroporus	%	48	Maastrichtian	CHN	ASP	%	Mount Jolmo Lungma Region, Southern Tibet
Nagappa 1959	Omphalocyclus	macropora	(Lamarck)	46	Maastrichtian	PAK	ASP	2(1)	Dunghan Range, Baluchistan
Nagappa 1959	Omphalocyclus	macropora	(Lamarck)	46	Maastrichtian	PAK	ASP	%	Lakhi Range, Sind
Nagappa 1959	Omphalocyclus	sp.	%	46	Maastrichtian	PAK	ASP	%	Lakhi Range, Sind
Nagappa 1959	Omphalocyclus	macropora	%	46	Maastrichtian	PAK	ASP	%	Quetta, Baluchistan
Nagappa 1959	Omphalocyclus	macropora	%	46	Maastrichtian	PAK	ASP	%	Rakhi Nala, Sulaiman Range
Nagappa 1959	Omphalocyclus	macropora	%	48	Maastrichtian	CHN	ASP	%	central Tibet
Neumann 1993	Omphalocyclus	macroporus	%	32	Maastrichtian	ESP	EFP	%	plate-formes E pyrénéennes
Neumann 1993	Omphalocyclus	sp.	%	32	Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Omphalocyclus	macroporus	%	32	Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Omphalocyclus	macroporus	%	71	Maastrichtian	SVK	EFP	%	Tchécoslovaquie
Özcan 1993	Omphalocyclus	macroporus	(Lamarck)	38	Maastrichtian	TUR	EFP	%	north-east Kahta region
Özcan 1993	Omphalocyclus	macroporus	(Lamarck)	38	Maastrichtian	TUR	EFP	fig. 4i	north-east Kahta region
Özcan & Özkan-Altiner 1997	Omphalocyclus	macroporus	(Lamarck)	38	late Maastrichtian	TUR	EFP	4(10,11)	Haymana basin
Özcan & Özkan-Altiner 1997	Omphalocyclus	sp.	%	38	late Maastrichtian	TUR	EFP	%	1 km SW of Yesilyurt village; Haymana basin
Özcan & Özkan-Altiner 1997	Omphalocyclus	sp.	%	38	late Maastrichtian	TUR	EFP	%	40 m above Hay-W-115; Haymana basin
Özcan & Özkan-Altiner 1997	Omphalocyclus	sp.	%	38	late Maastrichtian	TUR	EFP	%	Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Omphalocyclus	sp.	%	38	late Maastrichtian	TUR	EFP	%	500 m SE of Kartalkaya Hill; Haymana basin
Özcan & Özkan-Altiner 1997	Omphalocyclus	sp.	%	38	late Cretaceous	TUR	EFP	%	2.5 km SW of Haymana
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)

Hofker 1966	p.172;figs.101,102	%	%	%
Hofker 1966	p.201;fig.105.1,107	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.274;figs.124,125	%	%	%
Hofker 1966	p.275;fig.131	%	%	%
~~Hofker 1966~~	~~p.275;fig.133~~	~~%~~	~~%~~	~~%~~
Hofker 1966	p.276;fig.135	%	%	%
Hottinger 1966	Fig. 2	Siderolites, Orbitoides	calcaires gréseux très durs	%
Hottinger 1981	%	%	%	%
Hottinger 1997	%	Hellenocyclina, Orbitoides, Lepidorbitoides	upper photic zone: 40-80 m	%
Inan 1996a	Fig. 1		Limestone, sandy limestone, clayey limestone; Tidal - Back ree	%
Inan 1996b	%	Laffitteina, Cuneolina, Loftusia, Orbitoides, Sirtina	%	%
Inan et al. 1996	Fig. 1	%	%	%
Ion 1975	Fig. 1	Lepidorbitoides, Orbitoides, Siderolites; A. mayaroensis	%	%
Ismail & Boukhary 2001	%	Orbitoides media, Sulcoperculina globosa	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Ismail & Boukhary 2001	%	%	%	%
Kalantari 1976	Fig. 1	Siderolites, Loftusia	marly limestone	Loftusia minor & harrisoni zone
Kalantari 1976	Fig. 1	Loftusia	limestone	Loftusia minor & harrisoni zone
Kalantari 1976	Fig. 1	%	%	Loftusia minor & harrisoni zone
Kalkreuth et al. 1976	Page 23	%	%	%
Küpper 1954b	%	%	%	%
Küpper 1954b	%	%	%	%
Küpper 1954b	%	%	%	alternating embryonic chambers
Kureshy 1977	Fig. 1	Siderolites, Orbitoides, Sulcoperculina	%	Orbitoides media zone
Kureshy 1977	Fig. 1	Lepidorbitoides, Orbitoides, Siderolites, Sulcoperculina	Carbonate facies	%
Kureshy 1977	Fig. 1	Orbitoides, Lepidorbitoides, Siderolites, Sulcoperculina	hard massive, splintry, light brown in color; Carbonate facies	%
Kureshy 1977	Fig. 1	Orbitoides, Siderolites, Sulcoperculina, Lepidorbitoides	%	Orbitoides media zone
Kureshy 1980	Page 94	Orbitoides, Lepidorbitoides, Siderolites, Sulcoperculina	%	%
LeBlanc 2000	Fig. 35	%	marl	Type section of the Zmam Fm: isolated hill near the entrance of Wadi Tar, about 48 km NW of the oasis of Socna
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
McGowran 1968	%	Siderolites, Lepidorbitoides	%	%
McGowran 1968	%	Orbitoides	%	%
McGowran 1968	%	%	%	%
Meric 1967	%	%	%	%
Meric 1967	%	%	%	%
Meric 1967	%	%	%	%
Meric 1967	%	%	%	%
Meric & Görmüs 2001	%	Loftusia	%	%
Meric et al. 2001	%	Loftusia, Orbitoides	%	%
Meric et al. 2001	%	Loftusia, Orbitoides	%	%
Meric et al. 2001	%	Orbitoides, Loftusia	%	%
Meric et al. 2001	%	Loftusia, Orbitoides	%	%
Meric et al. 1997	%	Loftusia, Orbitoides, Hellenocyclina, Lepidorbitoides, Siderolites	%	%
Mu et al. 1973	%	Orbitoides	Limestone intercalated with calcareous shale; shallowwater, platform type	%
Nagappa 1959	Page 178	Siderolites	%	%
Nagappa 1959	Txt-fig. 2	Orbitoides, Siderolites; Globigerina, Guembelina	light-coloured massive or thick-bedded limestones, becoming sandy toward the top; deposition on the continental shelf in warm, shallow, sometimes sheltered waters of the inner neritic environment	maximum thickness 320'+; base not exposed
Nagappa 1959	Txt-fig. 2	Globotruncana linneiana, Globotruncana stuarti	light-coloured massive or thick-bedded limestones, becoming sandy toward the top; deposition on the continental shelf in warm, shallow, sometimes sheltered waters of the inner neritic environment	maximum thickness 320'+; base not exposed
Nagappa 1959	Txt-fig. 2	Orbitoides, Siderolites	shelf deposits in shallowinner neritic environments	%
Nagappa 1959	Txt-fig. 2	Orbitoides, Siderolites	%	%
Nagappa 1959	Table 8	Orbitoides	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Özcan 1993	%	Orbitoides, Siderolites, Lepidorbitoides, Loftusia	friable rudistid sandy facies	%
Özcan 1993	%	Orbitoides, Siderolites, Sirtina, Lepidorbitoides, Loftusia	sandy bioclastic carbonates	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Siderolites, Loftusia, Sirtina, Hellenocyclina	siltstone-sandstone and carbonate and bioclastic limestone; shallowwater	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Siderolites, Lepidorbitoides	friable sandstone; shallowwater	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides	massive clastic siltstone-sandstone; shallow water	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Siderolites, Sirtina, Hellenocyclina	bioclastic; shallow water	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Sirtina, Siderolites, Hellenocyclina	sandstone horizon between shale-marl units; deep-marine grade into turbiditic	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Loftusia, Siderolites, Hellenocyclina, Sirtina	nodular, friable imy sandstone and sandy limestone	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides	%	A. mayaroensis zone

Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	early Maastrichtian	TUR	EFP	%	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	early Maastrichtian	TUR	EFP	%	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	Campanian-Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Omphalocyclus	macroporus	%	38	%	TUR	EFP	%	Haymana area (central Anatolia)
Özkan-Altiner & Özcan 1999	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Cide region
Papp 1954	Omphalocyclus	macroporus	%	57	Maastrichtian	NLD	EFP	%	Maastricht
Papp 1954	Omphalocyclus	macroporus	%	59	Maastrichtian	AUT	EFP	%	Flysch bei Wien, Gosau bei Grünbach
Papp 1954	Omphalocyclus	macroporus	%	31	Maastrichtian	FRA	EFP	%	Gensac; Fruska-Gora
Renz 1936	Omphalocyclus	macropora	(Lamarck)	58	Maastrichtian	CHE	EFP	32(1,2)	Alfermée
Renz 1936	Omphalocyclus	sp.	%	31	late Cretaceous	FRA	EFP	%	Frankreich
Renz 1936	Omphalocyclus	sp.	%	57	late Cretaceous	NLD	EFP	%	Holland
Renz 1936	Omphalocyclus	sp.	%	35	late Cretaceous	ITA	EFP	%	Italien
Renz 1936	Omphalocyclus	sp.	%	41	late Cretaceous	ROM	EFP	%	Rumänien
Renz 1936	Omphalocyclus	sp.	%	36	late Cretaceous	GRC	EFP	%	Griechenland (inklus. Rhodos)
Renz 1936	Omphalocyclus	sp.	%	69	late Cretaceous	ZYP	AFP	%	Cypern
Renz 1936	Omphalocyclus	sp.	%	56	late Cretaceous	IRN	EFP	%	Persien
Renz 1936	Omphalocyclus	sp.	%	17	late Cretaceous	TUN	AFP	%	Tunis
Renz 1936	Omphalocyclus	sp.	%	46	late Cretaceous	PAK	ASP	%	Belutschistan
Renz 1936	Omphalocyclus	sp.	%	44/45	late Cretaceous	IND	ASP	%	Indien
Renz 1936	Omphalocyclus	sp.	%	48	late Cretaceous	CHN	ASP	%	Tibet
Renz 1955	Omphalocyclus	cf. macroporus	(Lamarck)	10	Maastrichtian	VEN	CFP	5(1-3)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Omphalocyclus	cf. macroporus	(Lamarck)	10	Maastrichtian	VEN	CFP	5(6)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Omphalocyclus	cf. macroporus	(Lamarck)	1	late Cretaceous	CUB	CFP	5(4-5,10)	Cuba
Renz 1955	Omphalocyclus	cf. macroporus	(Lamarck)	57	Maastrichtian	NLD	EFP	5(7-9)	Maastricht, Netherlands
Sartorio & Venturini 1988	Omphalocyclus	macroporus	(Lamarck)	%	Maastrichtian	%	EFP	p.126, 128	Adriatic Sea
Sartorio & Venturini 1988	Omphalocyclus	macroporus	(Lamarck)	56	Maastrichtian	IRN	EFP	p.128	Parnezam, Zagros
Seiglie & Ayala-Castanares 1963	Omphalocyclus	schlumbergeri	(Silvestri)	1	Maastrichtian	CUB	CFP	35(3)	Camino Alava-Bidasoa; finca La Cienfueguera; 1.7 km. al NW del río Mayor, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Omphalocyclus	sp.	%	1	%	CUB	CFP	%	Camino Viejo de Yaguaramas-Abreus; 2.3 kms. al WSW del Batey Cienaguita; 3 kms. al N de Algodones. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Omphalocyclus	sp.	%	1	%	CUB	CFP	%	Camino Real Viejo de Yaguaramas-Abreus; 5.7 km al WSW de Abreus. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Omphalocyclus	schlumbergeri	(Silvestri)	1	Maastrichtian	CUB	CFP	%	Camino Real Viejo de Yaguaramas-Abreus; 400 m. al W del Batey Cienaguita. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Omphalocyclus	sp.	%	1	%	CUB	CFP	35(4); 36(1)	Camino interior en finca Asturias; a través del potrero; 480m NE del entronque del camino Serventia del Real Campina-finca Asturias con el camino Circulación del Hato Magdalena; 1 km de los Ferrocarriles Occidentales de Cuba; 4 km SE del Central Perseverancia
Seiglie & Ayala-Castanares 1963	Omphalocyclus	macroporus	(Lamarck)	1	late Maastrichtian	CUB	CFP	%	Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Omphalocyclus	sp.	%	1	%	CUB	CFP	%	Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Omphalocyclus	sp.	%	%	%	CUB	CFP	35(5)	%
Sirel 1991	Omphalocyclus	macroporus	(Lamarck)	38	late Maastrichtian	TUR	EFP	%	Cide region
Sirel 1996	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey
Sirel 1996	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Gölköy town, S of Ordu, Northern Turkey
Sirel 1996	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Peyamli hill, 8 km north of Dündarli town, SW of Kayseri
Sirel 1996	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Demircilik village, NW of Tecer mountains, S of Sivas, Central Turkey
Sirel 1996	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km west of Haymana town, S of Ankara
Sirel 1996	Omphalocyclus	macroporus	%	38	Maastrichtian	TUR	EFP	%	Ovacuma village, Ulus town, NE of Zonguldak, Northern Turkey
Sun & Zhang 1983	Omphalocyclus	macroporus	(Lamarck)	48	Maastrichtian	CHN	ASP	%	southern Tethys-Himalayan belt; S of Zanda-Gyirong-Tingri-Sakya-Kangma-Lhunze line; Gamb
Visser 1951	Omphalocyclus	macroporus	%	58	Maastrichtian	CHE	EFP	%	Bielersee, Switzerland
Visser 1951	Omphalocyclus	macroporus	%	36	Maastrichtian	GRC	EFP	%	Leukas, Greece
Visser 1951	Omphalocyclus	macroporus	%	35	late Cretaceous	ITA	EFP	%	Central Appenines, Italy
Visser 1951	Omphalocyclus	macroporus	%	57	Hervian and Maastrichtian (Md)	NLD	EFP	%	South-Limburg
Visser 1951	Omphalocyclus	macroporus	(Lamarck)	57	Maastrichtian	NLD	EFP	9(2)	Burgerwacht-quarry, St. Pietersberg
Visser 1951	Omphalocyclus	macropora	(Lamarck)	57	Maastrichtian	NLD	EFP	11(7)	Burgerwacht-quarry, St. Pietersberg
Visser 1951	Omphalocyclus	macropora	(Lamarck)	57	Maastrichtian	NLD	EFP	11(8)	Burgerwacht-quarry, St. Pietersberg
Weiss 1993	Omphalocyclus	macroporus	(Lamarck)	46	early Maastrichtian	PAK	ASP	9(3,4,6)	Rakhi Nala section, Sulaiman Range, Northern Pakistan
Wen 1987	Omphalocyclus	macroporus	(Lamarck)	48	Campanian-Maastrichtian	CHN	ASP	%	SE of Gamba to Jidula hill
Wen 1987	Omphalocyclus	macroporus	(Lamarck)	48	Campanian-Maastrichtian	CHN	ASP	%	4 km E Kamba village
Willems et al. 1996	Omphalocyclus	macroporus	%	48	Maastrichtian	CHN	ASP	%	ca. 100 m north of Gamba, Tingri area, Tibet
Willems et al. 1996	Omphalocyclus	macroporus	%	48	middle Maastrichtian	CHN	ASP	%	Profile L, Section Tingri, Tibet

Clypeorbis

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
Bignot 1972	Clypeorbis	sp.	%	63	Maastrichtian	SVN	EFP	%	route 2058 entre Sedovec et Ravnica
Busulini et al. 1984	Clypeorbis	mamillata	Schlumberger	72	late Maastrichtian	ITA	EFP	%	Sardinia
Caus 1988	Clypeorbis	sp.	%	32	Campanian, Maastrichtian	ESP	EFP	%	Pyrenean basin
Caus 1988	Clypeorbis	sp.	%	32	Maastrichtian	ESP	EFP	%	Pyrenean basin
Caus & Hottinger 1986	Clypeorbis	sp.	%	%	Santonian-Campanian	%	%	%	Tethys
Hanzawa 1962	Clypeorbis	mamillata	(Schlumberger)	%	%	%	%	1(38,42-44)	%
Hanzawa 1962	Clypeorbis	mamillata	(Schlumberger)	31	%	FRA	EFP	4(4)	St. Marcit, Haute Garonne, France
Hanzawa 1962	Clypeorbis	sp.	Douvillé	%	Maastrichtian	%	%	%	%
Hottinger & Caus in press	Clypeorbis	mammillatus	(Schlumberger)	31	Maastrichtian	FRA	EFP	8(1-6)	St. Marcet, Aquitaine Occidentale, France
Hottinger & Caus in press	Clypeorbis	mammillatus	(Schlumberger)	32	Maastrichtian	ESP	EFP	8(7-8)	Tremp, SE Pyrenees, Spain
Loeblich & Tappan 1988	Clypeorbis	sp.	Douvillé	31	late Maastrichtian	FRA	EFP	%	South France
Loeblich & Tappan 1988	Clypeorbis	sp.	Douvillé	32	late Maastrichtian	ESP	EFP	%	North Spain
Loeblich & Tappan 1988	Clypeorbis	mammillatus	(Schlumberger)	31	Maastrichtian	FRA	EFP	735(5-8)	Gensac, Dept. Haute Garonne, France
Mavrikas et al. 1994	Clypeorbis	mamillata	%	36	late Maastrichtian	GRC	EFP	%	Ori Valtou
Meertens & Drooger 1988	Clypeorbis	mamillata	(Schlumberger)	31	Maastrichtian	FRA	EFP	figs.1-8	track leading to abandoned limestone quarry of Larcan, north of Saint-Gaudens, Haute-Garonn
Meric & Coruh 1991	Clypeorbis	mamillata	(Schlumberger)	38	middle-late Maastrichtian	TUR	EFP	%	NW Siirt, SE Anatolia
Neumann 1993	Clypeorbis	mamillata	%		Maastrichtian		EFP	%	plate-formes E pyrénéennes
Özcan & Özkan-Altiner 1999b	Clypeorbis	mamillata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Clypeorbis	mamillata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Clypeorbis	mamillata	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özkan-Altiner & Özcan 1999	Clypeorbis	mamillata	%	38	Maastrichtian	TUR	EFP	%	Cide region
Schlumberger 1903	Orbitoides	mamillata	n. sp.	31	Cretaceous	FRA	EFP	8(17-20)	Gensac

Sirtina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Abramovich et al. 2002	Sirtina	orbitoidiformis	(Brönnimann & Wirz)	29	Late Maastrichtian	MDG	AFP	4(1-3)	Berivotra, Mahajanga Basin, Madagasca

Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides, Sirtina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides, Sirtina, Clypeorbis	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides, Sirtina, Clypeorbis, Helenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides, Sirtina, Clypeorbis, Helenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Lepidorbitoides, Sirtina, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Siderolites	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Siderolites, Sirtina, Hellenocyclina	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Papp 1954	%	%	%	%
Papp 1954	%	%	%	%
Papp 1954	%	%	%	%
Renz 1936	Page 545	%	gelbe und graue Kalke	Dm bis 6 mm; Syn.: Orbulites macropora, Sporadotrema errantium
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1955	Page 68	%	%	%
Renz 1955	Page 68	%	%	%
Renz 1955	Page 68	%	%	%
Renz 1955	Page 68	%	%	%
Sartorio & Venturini 1988	%	%	%	%
Sartorio & Venturini 1988	%	%	%	%
Seiglie & Ayala-Castanares 1963	Page 5	Orbitoides, Asterorbis, Sulcoperculina	Caliza recristalizada, estratificada, blanco amarillenta, con numerosos foraminíferos en color blanco	%
Seiglie & Ayala-Castanares 1963	Page 6	Orbitoides, Asterorbis, Vaughanina, Sulcoperculina	Caliza densa, dura, aporcelanada, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 6	Lepidorbitoides, Asterorbis	Caliza dura, recristalizada, sacaroidea, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 6	Orbitoides, Asterorbis, Vaughanina, Sulcoperculina	Calizas duras, recristalizadas, blancas, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 7	Orbitoides, Asterorbis, Sulcoperculina	Calizas duras, recristalizadas en parte, color crema rosáceo, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 14	Asterorbis, Vaughanina, Siderolites, Sulcoperculina	Calcirudita, deleznable, arcillosa, color gris claro	%
Seiglie & Ayala-Castanares 1963	Page15	Orbitoides, Lepidorbitoides, Pseudorbitoides, Vaughanina, Sulcoperculina	Calcirudita a calcarenita, dura, consolidada, color gris claro	%
Seiglie & Ayala-Castanares 1963	%	%	%	keine Angaben zur Lokalität
Sirel 1991	Fig. 1	Siderolites, Sirtina, Hellenocyclina, Lepidorbitoides, Orbitoides, Navarella	light gray limestone, green and dark red siltstone, tuffit intercalation	%
Sirel 1996	Fig. 1	Loftusia, Siderolites, Hellenocyclina, Orbitoides, Laffitteina	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	Fig. 1	Siderolites, Hellenocyclina, Orbitoides	limestones	%
Sirel 1996	Fig. 1	Loftusia, Siderolites, Hellenocyclina, Orbitoides, Laffitteina	limestone; shallow water	%
Sirel 1996	Fig. 1	Loftusia, Laffitteina	limestone; shallow water	%
Sirel 1996	Fig. 1	Laffitteina, Siderolites, Hellenocyclina, Orbitoides, Sirtina	limestone; shallow water	%
Sirel 1996	Fig. 1	Orbitoides	limestone; shallow water	%
Sun & Zhang 1983	Fig. 1	Orbitoides	limestone; shallow water	%
Visser 1951	Page 294	%	%	%
Visser 1951	Page 294	%	%	%
Visser 1951	Page 294	%	%	%
Visser 1951	Page 294	%	%	%
Visser 1951	Page 294	%	yellowrather soft marl	%
Visser 1951	Page 294	%	somewhat darker yellow fossil-waste-bed	%
Visser 1951	Page 294	%	yellowharder marl	%
Weiss 1993	Fig. 1	Orbitoides	Limestone	Orbitoides media - Omphalocyclus macroporus Assemblage
Wen 1987	Fig. 9-1	%	grey limestone	%
Wen 1987	Fig. 9-1	%	limestone	%
Willems et al. 1996	Fig. 2	Orbitoides	diverse	%
Willems et al. 1996	Fig. 2	Orbitoides	%	Gansseri- Biozone

Clypeorbis

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Bignot 1972	Fig. 52-54	Siderolites, Omphalocyclus	conglomératiques	reworked material
Busulini et al. 1984	%	Siderolites, Orbitoides, Lepidorbitoides	%	%
Caus 1988	%	%	open marine shelf	%
Caus 1988	%	%	open marine shelf	%
Caus & Hottinger 1986	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hottinger & Caus in press	%	%	%	%
Hottinger & Caus in press	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Mavrikas et al. 1994	Fig. 1	%	limestones wth large rudists	%
Meertens & Drooger 1988	P.278	Lepidorbitoides	marls	%
Meric & Coruh 1991	Fig. 1	Orbitoides, Omphalocyclus, Lepidorbitoides, Sulcoperculina, Cuneolina, Sirtina	%	%
Neumann 1993	%	%	%	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Lepidorbitoides	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Lepidorbitoides, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Lepidorbitoides, Hellenocyclina	%	A. mayaroensis zone
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Schlumberger 1903	%	%	%	type species

Sirtina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Abramovich et al. 2002	Fig. 1	%	%	%

Abramovich et al. 2002	Sirtina	n. sp.	%	29	Late Maastrichtian	MDG	AFP	4(4,11-14)	Berivotra, Mahajanga Basin, Madagasca
Bignot & Neumann 1997	Sirtina	cf. orbitoidiformis	Brönnimann & Wirz	30	Campanian	BEL	EFP	%	Folx-les-Caves, à l'est de Bruxelles
Bignot & Neumann 1997	Sirtina	orbitoidiformis	Brönnimann & Wirz	31b	%	FRA	EFP	fig.1-4	Charentes, France
Brönnimann & Wirz 1962	Sirtina	orbitoidiformis	Brönnimann & Wirz	56	Early Maastrichtian	IRN	EFP	figs.2,3,6	Persian Gulf, Iran; 29°17'41"N, 49°31'35" E
Brönnimann & Wirz 1962	Sirtina	orbitoidiformis	Brönnimann & Wirz	18	Early Maastrichtian	LBY	AFP	fig. 4	Sirte Basin, Cyrenaica, Libya
Brönnimann & Wirz 1962	Sirtina	orbitoidiformis	Brönnimann & Wirz	18	Early Maastrichtian	LBY	AFP	fig. 5	Sirte Basin, Cyrenaica, Libya
Caus 1988	Sirtina	sp.	%	32b	Santonian, Campanian	ESP	EFP	%	Pyrenean basin
Caus 1988	Sirtina	sp.	%	32b	Campanian, Maastrichtian	ESP	EFP	%	Pyrenean basin
Caus et al. 1996	Sirtina	sp.	%	59	Late Campanian	AUT	EFP	%	Pemberger, Carinthia (Austria)
Caus & Hottinger 1986	Sirtina	sp.	%	%	Santonian-Campanian	%	%	%	Tethys
Hottinger & Caus 1993	Sirtina	sp.	%	%	Late Campanian-Maastrichtian	%	%	%	%
Hottinger & Caus in press	Sirtina	orbitoidiformis	Brönnimann & Wirz	38	%	TUR	EFP	fig. 1	Gercus, Turkey
Hottinger & Caus in press	Sirtina	orbitoidiformis	Brönnimann & Wirz	38	%	TUR	EFP	fig. 4	Gercus, Turkey
Hottinger & Caus in press	Sirtina	orbitoidiformis	Brönnimann & Wirz	31	%	FRA	EFP	fig. 5	Saintes, SW France
Hottinger & Caus in press	Sirtina	orbitoidiformis	Brönnimann & Wirz	38	Early Maestrichtian	TUR	EFP	1(1-13)	Gercus, SW Turkey
Hottinger & Caus in press	Sirtina	betica	n. sp.	32	Late Maestrichtian	ESP	EFP	pl.2, fig.1-9	Sierra de Arguena, Betic Cordillieras, SE Spain
Hottinger & Caus in press	Sirtina	betica	n. sp.	32	Late Maestrichtian	ESP	EFP	pl.3, fig.1-9	Sierra de Arguena, Betic Cordillieras, SE Spain
Inan 1996a	Sirtina	orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Koyulhisar-Sivas
Inan 1996b	Sirtina	orbitoidiformis	Brönnimann	38	Maastrichtian	TUR	EFP	%	Turkey
Loeblich & Tappan 1988	Sirtina	sp.	Brönnimann & Wirz	56	Santonian-Early Maastrichtian	IRN	EFP	%	Iran
Loeblich & Tappan 1988	Sirtina	sp.	Brönnimann & Wirz	31	Santonian-Early Maastrichtian	FRA	EFP	%	France
Loeblich & Tappan 1988	Sirtina	sp.	Brönnimann & Wirz	18	Santonian-Early Maastrichtian	LBY	AFP	%	Libya
Loeblich & Tappan 1988	Sirtina	orbitoidiformis	Brönnimann & Wirz	18	Early Maastrichtian	LBY	AFP	735(9)	subsurface, Sirte Basin, Cyrenaica, Libya
Loeblich & Tappan 1988	Sirtina	granulata	(Rahaghi)	31	Santonian	FRA	EFP	735(10-12)	France
Loeblich & Tappan 1988	Sirtina	granulata	(Rahaghi)	56	Campanian	IRN	EFP	736(1-6)	Iran
Loeblich & Tappan 1988	Sirtina	orbitoidiformis	Brönnimann & Wirz	56	Maastrichtian	IRN	EFP	736(7-11)	Iran
Mavrikas et al. 1994	Sirtina	sp.	%	36	Late Maastrichtian	GRC	EFP	%	Ori Valtou
Mavrikas et al. 1994	Sirtina	sp.	%	36	Late Maastrichtian	GRC	EFP	%	Ori Valtou
Meric & Coruh 1991	Sirtina (Iranites)	ornata	(Rahaghi)	38	Middle-Late Maastrichtian	TUR	EFP	%	Celikli well, NW Siirt, SE Anatolia
Özcan 1993	Sirtina	orbitoidiformis	Brönnimann & Wirz	38	Late Campanian-Maastrichtian	TUR	EFP	Fig.4;I	Alidami section
Özcan 1993	Sirtina	orbitoidiformis	Brönnimann & Wirz	38	Middle-Late Maastrichtian	TUR	EFP	%	Turkey
Özcan & Özkan-Altiner 1997	Sirtina	sp.	%	38	Maastrichtian	TUR	EFP	%	near Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Sirtina	sp.	%	38	Maastrichtian	TUR	EFP	%	500 m SE of the Kartalkaya Hill
Özcan & Özkan-Altiner 1997	Sirtina	sp.	%	38	Maastrichtian	TUR	EFP	%	SW of Haymana
Özcan & Özkan-Altiner 1999b	Sirtina	cf. orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Sirtina	cf. orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Sirtina	cf. orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Sirtina	cf. orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Sirtina	cf. orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Sirtina	cf. orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Rahaghi 1976	Neumannites	granulata	n. sp.	56	Campanian	IRN	EFP	2(12-22)	région de Kermanshah
Rahaghi 1976	Iranites	ornatus	n. sp.	56	%	IRN	EFP	3(1-10)	Iran
Sirel 1991	Sirtina	orbitoidiformis	Brönnimann & Wirz	38	Late Maastrichtian	TUR	EFP	%	Cide region
Sirel 1996	Sirtina	orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Haymana basin, S of Ankara
Sirel 1996	Sirtina	orbitoidiformis	%	38	Maastrichtian	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km W of Haymana town, S of Ankara

Helicorbitoides

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Povince	Illustration	Site
Bignot & Neumann 1997	Helicorbitoides	longispina	Papp & Küpper	40	Campanian	SWE	EFP	%	Stafersvad, Suède méridionale
Bignot & Neumann 1997	Helicorbitoides	voigti	van Gorsel	40	Campanian	SWE	EFP	%	Båstad, Suède méridionale; 56 25 N, 12 51 E
Bignot & Neumann 1997	Helicorbitoides	voigti	van Gorsel	40	%	SWE	EFP	fig. 5-7	Båstad, Scanie, Suède
Bignot & Neumann 1997	Helicorbitoides	longispiralis	Papp & Küpper	40	%	SWE	EFP	fig. 8	Stafersvad, Scanie, Suède
Brönnimann 1955	Pseudorbitoides	longispiralis	Papp & Küpper	59	Early Maastrichtian	AUT	EFP	%	Silberegg, Guttaring-Klein St. Paul, Kärnten, Austria
Loeblich & Tappan 1988	Helicorbitoides	sp.	Macgillavry	59	Late Campanian	AUT	EFP	%	Austria
Loeblich & Tappan 1988	Helicorbitoides	sp.	Macgillavry	40	Late Campanian	SWE	EFP	%	Sweden
Loeblich & Tappan 1988	Helicorbitoides	sp.	Macgillavry	58	Late Campanian	CHE	EFP	%	Switzerland
Loeblich & Tappan 1988	Helicorbitoides	longispiralis	(Papp & Küpper)	40	Late Campanian	SWE	EFP	740(4,6)	S. Sweden
Loeblich & Tappan 1988	Helicorbitoides	longispiralis	(Papp & Küpper)	59	Late Campanian	AUT	EFP	740(5)	Silberegg Steinbruch, Austria
Neumann 1993	Helicorbitoides	longispiralis	%	59	Campanian	AUT	EFP	%	Silberegg I, Alpes Carniques
Neumann 1993	Helicorbitoides	longispiralis	%	59	Campanian	AUT	EFP	%	Région de Vienne
Papp 1954	Pseudorbitoides	longispiralis	Papp & Küpper	59	Campanian	AUT	EFP	1(1)	Silberegg SW of Guttaring, Kärnten
Papp 1955a	Pseudorbitoides	longispiralis	Papp & Küpper	59	Campanian	AUT	EFP	Abb. 1, fig.1	Silberegg
Papp 1955b	Pseudorbitoides	longispiralis	%	59	Campanian	AUT	EFP	%	S Guttaring Silberegg
Papp & Küpper 1953b	Pseudorbitoides	longispiralis	n. sp.	59	Campanian	AUT	EFP	2(3)	Silberegg Steinbruch
Sirel 1995	Helicorbitoides	boluensis	n. sp.	38	Late Campanian	TUR	EFP	1(1-11); 2(1-11)	Mendenler village, NE of Bolu city, NW Turkey
Sirel 1995	Helicorbitoides	voigti	van Gorsel	40	Late Campanian	SWE	EFP	%	Sweden
Sirel 1995	Pseudorbitoides	longispiralis	Papp & Küpper	59	Campanian	AUT	EFP	%	Austria
van Gorsel 1973b	Helicorbitoides	longispiralis	(Papp & Küpper)	40	early Late Campanian	SWE	EFP	1(1); 4(1-4)	small quarry near hamlet of Stafversvad, 20 km NE of Kristianstad, province of Scania
van Gorsel 1973b	Helicorbitoides	voigti	n. sp.	40	early Late Campanian	SWE	EFP	1(2-4); 2(1-3); 3(2-6)	Malen quarry near Bastad, province of Halland
van Gorsel 1973b	Helicorbitoides	sp.	%	31	Late Campanian	FRA	EFP	%	Aubeterre section, Charente
Wannier 1983	Helicorbitoides	longispiralis	%	58	Campanian	CHE	EFP	%	Niesengipfel

Hellenocyclina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
Azema et al. 1979	Hellenocyclina	beotica	Reichel	32	Maastrichtian	ESP	EFP	41(21)	Calarejos (Sierra del Segura)
~~Barattolo & Schiattarella (IT)~~	~~Hellenocyclina~~	~~beotica~~	~~%~~	~~35~~	~~Maastrichtian-Paleocene?~~	~~ITA~~	~~EFP~~	~~%~~	~~Capri~~
Caus & Hottinger 1986	Hellenocyclina	sp.	%	%	Santonian-Campanian	%	%	%	Tethys
Dupeuble et al. 1972	Hellenocyclina	beotica	Reichel	31	late Maastrichtian	FRA	EFP	1(1,2)	Larcan et Gorges de la Save (Haute-Garonne)
Dupeuble et al. 1972	Hellenocyclina	beotica	Reichel	57	late Maastrichtian	NLD	EFP	1(3,5,6)	carrière ENCI, Maastricht
Dupeuble et al. 1972	Hellenocyclina	beotica	Reichel	57	late Maastrichtian	NLD	EFP	1(4); 2(1-12)	Curfs près Maastricht
Dupeuble et al. 1972	Hellenocyclina	beotica	Reichel	31	late Maastrichtian	FRA	EFP	1(7)	Gorges de la Save (Haute-Garonne)
Dupeuble et al. 1972	Hellenocyclina	beotica	Reichel	31	late Maastrichtian	FRA	EFP	1(8-10)	Larcan (Haute-Garonne)
Fleury et al. 1985	Hellenocyclina	sp.	Reichel	15	Campanian?-Maastrichtian	MAR	AFP	%	Morocco
Fleury et al. 1985	Hellenocyclina	sp.	Reichel	%	Campanian?-Maastrichtian	%	EFP	%	western and southern Europe
Fleury et al. 1985	Hellenocyclina	sp.	%	57	Maastrichtian	NLD	EFP	%	Maastricht
Fleury et al. 1985	Hellenocyclina	sp.	%	32	Maastrichtian	ESP	EFP	%	southern Spain
Fleury et al. 1985	Hellenocyclina	sp.	%	31	Maastrichtian	FRA	EFP	%	Pyrenees, France
Fleury et al. 1985	Hellenocyclina	sp.	%	58	Maastrichtian	CHE	EFP	%	Switzerland

Abramovich et al. 2002	Fig. 1	%	%	vielleicht identisch mit "Operculina cretadea Reuss" in Hofker 1962, figs.1,3,4
Bignot & Neumann 1997	%	Dictyopsella	%	sous les noms de "*Miscellanea* (et/ou Siderolites) miscella Haine & d'Archiac"
Bignot & Neumann 1997	%	%	%	%
Brönnimann & Wirz 1962	%	%	glauconitic limestones, calcisiltites and silty marls; middle to outer shelfal wate	type species; Pan American International Oil Company's well A-1, depth: 6470 ft
Brönnimann & Wirz 1962	%	%	inner shelfal, probably littora	Esso Sirte's well Raguba E7-20, core no. 5, depth: 5704 ft
Brönnimann & Wirz 1962	%	%	shelfal, possibly middle to outer shel	Esso Libya's well Zelten C10-6, core no. 8, depth: 7815-7845 ft
Caus 1988	%	%	Carbonate platform, deeper protected shelf (40-60 m); reefs, shoals and bar	%
Caus 1988	%	%	open marine shel	%
Caus et al. 1996	%	Orbitoides, Lepidorbitoide	%	%
Caus & Hottinger 1986	%	%	%	%
Hottinger & Caus 1993	%	Lepidorbitoides, Hellenocyclin	%	%
Hottinger & Caus in press	%	%	%	%
Hottinger & Caus in press	%	%	%	%
Hottinger & Caus in press	%	%	%	%
Hottinger & Caus in press	%	%	%	%
Hottinger & Caus in press	%	%	cemented carbonate rock	%
Hottinger & Caus in press	%	%	cemented carbonate rock	%
Inan 1996a	Fig. 1	%	Limestone; Back reef	%
Inan 1996b	%	Laffitteina aff. marsicana, Orbitoides medius, Omphalocylus macroporu	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	Type species of Neumannites
Loeblich & Tappan 1988	%	%	%	Type species of Neumannites
Loeblich & Tappan 1988	%	%	%	Specimens described as Iranites ornatus, type species of Iranite
Mavrikas et al. 1994	Fig. 1	Siderolites, Pseudedomia, Orbitoides, Lepidorbitoides, Hellenocyclina	limestones with large rudists; plate-forme externe	%
Mavrikas et al. 1994	Fig. 1	Pseudedomia, Orbitoides	limestones with large rudists; plate-forme externe	%
Meric & Coruh 1991	Fig. 1	Orbitoides (apiculatus, medius), Omphalocyclus macroporus, Lepidorbitoides (socialis, cf. minor), Clypeorbis mamillata, Sulcoperculina sp., Cuneolina sp.	%	%
Özcan 1993	%	Orbitoides	sandy bioclastic carbonate	%
Özcan 1993	%	Orbitoides, Siderolites, Omphalocyclus, Lepidorbitoides, Loftusi	sandy bioclastic carbonate	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Siderolites, Hellenocyclin	bioclastic horizon; shallow wate	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Siderolites, Hellenocyclin	well-cemented sandstone horizon; deep-marine shale grades into the turbiditic shale marle and carbonate	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Loftusia, Omphalocyclus, Siderolites, Hellenocyclin	nodular, friable limy sandstone and sandy limestone beds; shallow wate	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Lepidorbitoides	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Lepidorbitoides, Clypeorbis	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Lepidorbitoides, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Lepidorbitoides, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Lepidorbitoides, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Lepidorbitoides, Hellenocyclina	%	A. mayaroensis zone
Rahaghi 1976	%	%	%	synonym of *Sirtina*
Rahaghi 1976	%	%	%	synonym of *Sirtina*
Sirel 1991	Fig. 1	Siderolites, Omphalocyclus, Hellenocyclina, Lepidorbitoides, Orbitoides	light grav limestone, green and dark red siltstone, tuffit intercalation	%
Sirel 1996	Fig. 1	Loftusia, Siderolites, Hellenocyclina, Orbitoides, Laffitteina	Sandstone, sandy limestone, argillaceous limestone	%
Sirel 1996	Fig. 1	Omphalocyclus, Siderolites, Hellenocyclina, Orbitoides, Laffitteina	limestone; shallow water	%

Helicorbitoides

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Bignot & Neumann 1997	%	%	%	déjà connue en Suisse et en Autriche
Bignot & Neumann 1997	%	%	%	inconnue ailleurs
Bignot & Neumann 1997	%	%	%	%
Bignot & Neumann 1997	%	%	%	%
Brönnimann 1955	%	%	%	type species
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Papp 1954	%	Siderolites, Orbitoides	%	%
Papp 1955a	%	%	%	%
Papp 1955b	Abb. 1	Orbitoides (tissoti, media), Siderolites vidali	Sandstein und Mergel	%
Papp & Küpper 1953b	%	%	%	holotypus
Sirel 1995	%	Orbitoides tissoti, Nummofallotia sp.	%	%
Sirel 1995	%	%	%	%
Sirel 1995	%	%	%	type species
van Gorsel 1973b	Page 275	%	%	%
van Gorsel 1973b	Page 275	%	%	%
van Gorsel 1973b	Page 275	%	%	%
Wannier 1983	%	Orbitoides tissoti	%	Phylozone à Orbitoides tissoti

Hellenocyclina

Publication	Loc-Descr	Association	Lithology and Facies	Remarks
Azema et al. 1979	%	%	%	%
~~Barattolo & Schiattarella (IT)~~	~~%~~	~~Siderolites~~	~~whitish sub-crystalline limestones~~	~~Internet article~~
Caus & Hottinger 1986	%	%	%	%
Dupeuble et al. 1972	Page 3	%	%	%
Dupeuble et al. 1972	Page 3	%	%	%
Dupeuble et al. 1972	Page 3	%	%	%
Dupeuble et al. 1972	Page 3	%	%	%
Dupeuble et al. 1972	Page 3	Siderolites calcitrapoides	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%

Fleury et al. 1985	Hellenocyclina	sp.	%	37	Maastrichtian	YUG	EFP	%	Yougoslavie	
Fleury et al. 1985	Hellenocyclina	sp.	%	56	Maastrichtian	IRN	EFP	%	Iran	
Fleury et al. 1985	Hellenocyclina	sp.	%	15	Maastrichtian	MAR	AFP	%	Morocco	
Hanzawa 1962	Hellenocyclina	beotica	Reichel	%	%	%	1(12)	%		
Hanzawa 1962	Hellenocyclina	sp.	Reichel	%	restricted to Maastrichtian	%	EFP	%	Europe	
Hottinger & Caus 1993	Hellenocyclina	sp.	%	%	late Campanian-Maastrichtian	%	%	%	%	
Inan 1996a	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Koyulhisar-Sivas	
Loeblich & Tappan 1988	Hellenocyclina	sp.	Reichel	36	Maastrichtian	GRC	EFP	%	Greece	
Loeblich & Tappan 1988	Hellenocyclina	sp.	Reichel	31	Maastrichtian	FRA	EFP	%	France	
Loeblich & Tappan 1988	Hellenocyclina	sp.	Reichel	57	Maastrichtian	NLD	EFP	%	Netherlands	
Loeblich & Tappan 1988	Hellenocyclina	beotica	Reichel	36	Maastrichtian	GRC	EFP	741(1-3)	Greece	
Loeblich & Tappan 1988	Hellenocyclina	beotica	Reichel	31	Campanian	FRA	EFP	741(4-6)	France	
Mavrikas et al. 1994	Hellenocyclina	beotica	Reichel	36	late Maastrichtian	GRC	EFP	%	Ori Valtou	
Meric et al. 1997	Hellenocyclina	beotica	Reichel	38	Maastrichtian	TUR	EFP	%	SE of Sereflikochisar, Tuzgölü Basin, Central Anatolia	
Özcan & Özkan-Altiner 1997	Hellenocyclina	sp.	%	38	Maastrichtian	TUR	EFP	%	Haymana Basin	
Özcan & Özkan-Altiner 1997	Hellenocyclina	sp.	%	38	Maastrichtian	TUR	EFP	%	E of Saridegirmen, Haymana Basin	
Özcan & Özkan-Altiner 1997	Hellenocyclina	sp.	%	38	Maastrichtian	TUR	EFP	%	500 m SE of Kartalkaya Hill	
Özcan & Özkan-Altiner 1997	Hellenocyclina	sp.	%	38	Maastrichtian	TUR	EFP	%	SE of Haymana city	
Özcan & Özkan-Altiner 1999b	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)	
Özcan & Özkan-Altiner 1999b	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)	
Özcan & Özkan-Altiner 1999b	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)	
Özcan & Özkan-Altiner 1999b	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)	
Özkan-Altiner & Özcan 1999	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Cide region	
Sirel 1991	Hellenocyclina	beotica	Reichel	38	late Maastrichtian	TUR	EFP	%	Cide region	
Sirel 1996	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Haymana basin, S of Ankara	
Sirel 1996	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey	
Sirel 1996	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Gölköy town, S of Ordu, Northern Turkey	
Sirel 1996	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Peyamli hill, 8 km north of Dündarli town, SW of Kayseri	
Sirel 1996	Hellenocyclina	beotica	%	38	Maastrichtian	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km west of Haymana town, S of Ankara	

Lepidorbitoides

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site
Abdelghany 2003	Lepidorbitoides	minor	(Schlumberger)	23	late Campanian-Maastrichtian	OMN	AFP	%	northern Oman Mountains
Abdelghany 2003	Lepidorbitoides	minor	(Schlumberger)	23	late Campanian-Maastrichtian	OMN	AFP	fig.10; 9-11; sample 3	northern Oman Mountains
Abdelghany 2003	Lepidorbitoides	minor	(Schlumberger)	23	late Campanian-Maastrichtian	OMN	AFP	%	northern Oman Mountains
~~Aguilar et al. 2002~~	~~Lepidorbitoides~~	~~minima~~	~~%~~	~~52~~	~~Campanian~~	~~MEX~~	~~CFP~~	~~1~~	~~Cardenas~~
Aguilar et al. 2002	Lepidorbitoides	campaniensis	%	31	Campanian	FRA	EFP	1	Aubeterre
Aguilar et al. 2002	Lepidorbitoides	pembergeri	%	59	Campanian	AUT	EFP	1	Pembergeriegel
Aguilar et al. 2002	Lepidorbitoides	bisambergensis	%	59	Maastrichtian	AUT	EFP	1	Bisamberg
Aguilar et al. 2002	Lepidorbitoides	minor	%	57	Maastrichtian	NLD	EFP	1	Maastricht
Aguilar et al. 2002	Lepidorbitoides	socialis	%	31	Maastrichtian	FRA	EFP	1	Larcan, S France
~~Aguilar et al. 2002~~	~~Lepidorbitoides~~	~~minima~~	~~%~~	~~52~~	~~late Campanian~~	~~MEX~~	~~CFP~~	~~2(1-1);3(1-5)~~	~~Cardenas~~
Arni 1933	Lepidorbitoides	paronai	Silvestri	36	Maastrichtian	GRC	EFP	%	Pindos
~~Ayala-Castanares 1963~~	~~Lepidorbitoides~~	~~minima~~	~~Douvillé~~	~~3~~	~~late Campanian~~	~~MEX~~	~~CFP~~	~~%~~	~~right side of road Carretera Panamericana, de México a Tuxtla Gutiérrez, ca 3.9 km. vor Tuxtla Gutiérrez~~
~~Ayala-Castanares 1963~~	~~Lepidorbitoides~~	~~minima~~	~~Douvillé~~	~~3~~	~~late Campanian~~	~~MEX~~	~~CFP~~	~~%~~	~~mismo afloramiento que Muestra Ay-109-57; 5 metros más alta estratigráficamente~~
Azema et al. 1979	Lepidorbitoides	sp.	%	32	Maastrichtian	ESP	EFP	38(2)	Sierra de la Arguena (Prebetic)
Azema et al. 1979	Lepidorbitoides	sp.	%	32	Maastrichtian	ESP	EFP	40(1)	Sierra Seca (Internal Prebetic)
Azema et al. 1979	Lepidorbitoides	sp.	%	32	Maastrichtian	ESP	EFP	39(1)	Sierra de Arguena (Prebetic)
Bignot 1972	Lepidorbitoides	minor	%	63	late Maastrichtian	SVN	EFP	%	Le Nanos; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Lepidorbitoides	socialis	%	63	late Maastrichtian	SVN	EFP	%	Le Nanos; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Lepidorbitoides	sp.	%	63	Maastrichtian	SVN	EFP	%	Le Sabotin; La Vipavska dolina et sa bordure septentrionale
Bignot 1972	Lepidorbitoides	cf. minor	%	63	Maastrichtian	SVN	EFP	%	Les lambeaux de flysch de Kalise, au N de Postojna; Le Bassin de la Pivka
Bignot 1972	Lepidorbitoides	cf. minor	%	63	late Maastrichtian	SVN	EFP	17(3)	Flanc SW du Nanos, entre le Mont Brzin et la Sembijska bajta
Bratu 1975	Lepidorbitoides	minor	%	41	Maastrichtian	ROM	EFP	%	18 km NW de la ville de Piatra Neamt
Bratu 1975	Lepidorbitoides	socialis	%	41	Maastrichtian	ROM	EFP	%	18 km NW de la ville de Piatra Neamt
Brönnimann 1954b	Lepidorbitoides	sp.	%	1	Maastrichtian	CUB	CFP	%	Santa Clara (Las Villas) Province, and Camagücy Province, Cuba
Brönnimann 1954b	Lepidorbitoides	sp.	%	1	Maastrichtian	CUB	CFP	%	southern Santa Clara
Brönnimann 1954b	Lepidorbitoides	sp.	%	2	youngest Cretaceous	USA	CFP	%	peninsular Florida
Brönnimann 1954b	Lepidorbitoides	spp.	%	1	Senonian to Danian-Montian	CUB	CFP	%	Oriente Province
Brönnimann 1958b	Lepidorbitoides	sp.	%	2	late Cretaceous	USA	EFP	%	Glades County, Florida
Brönnimann 1958b	Lepidorbitoides	sp.	%	2	Cretaceous	USA	EFP	%	Glades County, Florida
Busulini et al. 1984	Lepidorbitoides	cf. socialis	(Leymerie)	72	late Maastrichtian	ITA	EFP	%	Sovana, Sardinia
~~Butterlin 1967~~	~~Lepidorbitoides~~	~~minima~~	~~Douvillé~~	~~52~~	~~Maastrichtian (late?)~~	~~MEX~~	~~CFP~~	~~%~~	~~Route Rayon Tamasopo (État de san Luis Potosi)~~
Butterlin 1967	Lepidorbitoides	minor	(Schlumberger)	36	late Maastrichtian	GRC	EFP	%	du col d'altitude 860m à Kedronas, Grèce
Butterlin 1967	Lepidorbitoides	sp.	%	60	late Maastrichtian	MKD	EFP	%	Chemin Kato Gramatikon à Ano Gramatikon, à la cote 1030m (Province d'Édessa, Macédoine)
Butterlin 1992	Lepidorbitoides	sp.	%	67	Campanian-Maastrichtian	USA	CFP	%	forage au sud d'Hawaii (Leg 17, Site 165 A)
Butterlin 1992	Lepidorbitoides	bisambergensis	%	50	middle Maastrichtian	NRU	CFP	%	fosse de Nauru (Leg 61, Site 462, sections 48.1 et 48.2)
Butterlin 1992	Lepidorbitoides	minor	%	50	middle Maastrichtian	NRU	CFP	%	fosse de Nauru (Leg 61, Site 462, sections 48.1 et 48.2)
Butterlin 1992	Lepidorbitoides	socialis	%	50	middle Maastrichtian	NRU	CFP	%	fosse de Nauru (Leg 61, Site 462, sections 48.1 et 48.2)
Butterlin 1992	Lepidorbitoides	socialis	(Leymerie)	50	middle Maastrichtian	NRU	CFP	1(1)	Leg 61 Loc 462-48 soup
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	10	Midway (Paleocene)?	VEN	CFP	%	foot of Morro with lighthouse; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	10	Midway (Paleocene)?	VEN	CFP	2(10)	South slope of Morro de la Puerta; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	10	Midway (Paleocene)?	VEN	CFP	3(14)	Small Morro NW, corner valley; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	sp. ind.	%	10	Midway (Paleocene)?	VEN	CFP	3(16)	Small Morro NW, corner valley; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	10	Midway (Paleocene)?	VEN	CFP	%	1 km. N. 50 E. from the hotel; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	10	Midway (Paleocene)?	VEN	CFP	%	1 km. SE. of Granja; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	10	Midway (Paleocene)?	VEN	CFP	1(3)	Eastward along strike from G.91; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	10	Midway (Paleocene)?	VEN	CFP	%	15 km. from San Juan on the road to San Sebastian; San Juan de los Morros, State of Guarico, Venezuela
Caudri 1944	Lepidorbitoides	cf. planasi	M.G. Rutten	13	Paleocene	TTO	CFP	%	Point Bontour, near San Fernando, Trinidad, B.W.I
~~Caudri 1944~~	~~Lepidorbitoides~~	~~minima~~	~~H. Douvillé~~	~~68~~	~~Maastrichtian~~	~~MEX~~	~~CFP~~	~~%~~	~~Mexico~~
~~Caudri 1944~~	~~Lepidorbitoides~~	~~minima~~	~~H. Douvillé~~	~~1~~	~~Maastrichtian~~	~~CUB~~	~~CFP~~	~~%~~	~~Cuba~~
Caudri 1944	Lepidorbitoides	planasi	M.G. Rutten	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1944	Lepidorbitoides	rutteni	Thiadens	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1944	Lepidorbitoides	rutteni var. armata	Thiadens	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1944	Lepidorbitoides	palmeri	Thiadens	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1944	Lepidorbitoides	macgillavryi	Thiadens	1	Maastrichtian	CUB	CFP	%	Cuba
Caudri 1948	Lepidorbitoides	cf. planasi	Rutten	13	early Eocene	BRB	CFP	73(1)	Barbados
Caudri 1948	Lepidorbitoides	cf. planasi	Rutten	10	Paleocene or early Eocene	VEN	CFP	73(2)	Trujillo, Venezuela
Caudri 1948	Lepidorbitoides	cf. planasi	Rutten	13	late Eocene	TTO	CFP	73(9)	Point Bontour, Trinidad
Caudri 1948	Lepidorbitoides	cf. planasi	Rutten	10	Paleocene	VEN	CFP	73(11)	near San Juan de los Morros, Guárico, Venezuela

Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	Type species: Hellenocyclina beotica
Hottinger & Caus 1993	%	Sirtina, Lepidorbitoides	%	%
Inan 1996a	Fig. 1		Limestone, clayey limestone, sandy limestone; Tidal - Back ree	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	described as H. charentensis Freudenthal
Mavrikas et al. 1994	Fig. 1	Siderolites, Pseudedomia, Orbitoides, Lepidorbitoides, Sirtina	limestones with large rudists; plate-forme externe	%
Meric et al. 1997	%	Loftusia, Orbitoides, Omphalocyclus, Lepidorbitoides, Siderolites	%	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Siderolites, Loftusia, Sirtina	siltstone-sandstone and carbonate and bioclastic limestone horizonts; shallow water	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Siderolites, Sirtina	bioclastic horizont; shallow water	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Siderolites, Sirtina	well-cemented sandstone horizon; graduation from deep-marine into turbiditic	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Loftusia, Siderolites, Sirtina, Omphalocyclus	nodular, friable limy sandstone and sandy limestone beds	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Lepidorbitoides	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Lepidorbitoides	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Lepidorbitoides	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Lepidorbitoides	%	A. mayaroensis zone
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Sirel 1991	Fig. 1	Siderolites, Sirtina, Omphalocyclus, Lepidorbitoides, Orbitoides	light gray limestone, green and dark red siltstone, tuffit intercalation	%
Sirel 1996	Fig. 1	Loftusia, Siderolites, Laffitteina, Orbitoides, Sirtina	Sandstone, sandy limestone, argillaceous limestone	%
Sirel 1996	Fig. 1	Omphalocyclus, Siderolites, Loftusia, Orbitoides, Laffitteina	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	Fig. 1	Siderolites, Omphalocyclus, Orbitoides	limestones	%
Sirel 1996	Fig. 1	Loftusia, Siderolites, Laffitteina, Orbitoides, Omphalocyclus	limestone; shallow water	%
Sirel 1996	Fig. 1	Omphalocyclus, Siderolites, Laffitteina, Orbitoides, Sirtina	limestone; shallow water	%

Lepidorbitoides

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Abdelghany 2003	Fig. 1	Loftusia, Orbitoides, Omphalocyclus	limestone, pink limestone	%
Abdelghany 2003	Fig. 1	Orbitoides, Omphalocyclus	limestone, pink limestone	%
Abdelghany 2003	Fig. 1	Orbitoides	limestone	%
~~Aguilar et al. 2002~~	~~Fig. 1~~	~~%~~	~~%~~	~~%~~
Aguilar et al. 2002	%	%	%	%
Aguilar et al. 2002	%	%	%	%
Aguilar et al. 2002	%	%	%	%
Aguilar et al. 2002	%	%	%	%
Aguilar et al. 2002	%	%	%	%
~~Aguilar et al. 2002~~	~~Fig. 1~~	~~Sulcoperculina (globosa, dickersoni), Vaughanina cf. cubensis; Globotruncana (arca, linneiana)~~	~~%~~	~~%~~
Arni 1933	%	Siderolites (heracleae, calcitrapoides), Orbitoides (media, apiculata)	%	%
~~Ayala-Castanares 1963~~	~~Page 61~~	~~Orbitoides, Sulcoperculina, Pseudorbitoides~~	~~gravas de color pardo amarillento~~	~~ausführliche Lokalität im Text~~
~~Ayala-Castanares 1963~~	~~Page 62~~	~~Orbitoides, Sulcoperculina, Pseudorbitoides~~	~~gravas de color pardo amarillento~~	~~%~~
Azema et al. 1979	%	Navarella, Omphalocyclus	biomicritic limestone (wackestone); open platform environment	%
Azema et al. 1979	%	Orbitoides, Siderolites, Sulcoperculina	biomicrorudite (grainstone); open platform environment	%
Azema et al. 1979	%	Sulcoperculina, Siderolites, Orbitoides	terrigenous biomicritic limestone (packstone), irregularly recrystallized; open carbonate platform facies	%
Bignot 1972	Fig. 48,49	Orbitoides, Omphalocyclus	calcaires gris	%
Bignot 1972	Fig. 48,49	Orbitoides, Omphalocyclus	calcaires gris	%
Bignot 1972	Fig. 50,51	Orbitoides, Siderolites	calcaires conglomératiques	%
Bignot 1972	Fig. 63,64	Orbitoides, Siderolites	calcaires à Rudistes	%
Bignot 1972	Fig. 48,49	Orbitoides	calcaire biodétritique spathique	%
Bratu 1975	%	Orbitoides (media, apiculata)	%	%
Bratu 1975	%	Orbitoides (media, apiculata)	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1958b	Page 429	Pseudorbitoides	porous limestone	well cutting, Coastal Petroleum Company No.1, T 42 s - R33 E - Sec. 25; Depth: 5735 ft
Brönnimann 1958b	Page 429	Sulcoperculina, Pseudorbitoides, Orbitoides, Vaughanina	cream white microcoquinoid calcilutite	well cutting, Coastal Petroleum Company No.1, T 42 s - R33 E - Sec. 25; Depth: below5800 ft
Busulini et al. 1984	Fig. 2	Siderolites calcitrapoides, Orbitoides apiculata, Clypeorbis mamillata	galets des conglomérats	%
~~Butterlin 1967~~	~~%~~	~~Sulcoperculina~~	~~%~~	~~%~~
Butterlin 1967	%	Orbitoides, Omphalocyclus, Sulcoperculina, Siderolites	%	%
Butterlin 1967	%	Sulcoperculina, Orbitoides, Siderolites	%	%
Butterlin 1992	DSDP	Pseudorbitoides, Sulcoperculina	%	%
Butterlin 1992	DSDP	Orbitocyclina, Asterorbis, Sulcoperculina, Pseudorbitoides, Vaughanina	%	zone à *Globotruncana gansseri*
Butterlin 1992	DSDP	Orbitocyclina, Asterorbis, Sulcoperculina, Pseudorbitoides, Vaughanina	%	zone à *Globotruncana gansseri*
Butterlin 1992	DSDP	Orbitocyclina, Asterorbis, Sulcoperculina, Pseudorbitoides, Vaughanina	%	zone à *Globotruncana gansseri*
Butterlin 1992	%	%	%	%
Caudri 1944	%	Discocyclina, Athecocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	Athecocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	Discocyclina, Athecocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	Discocyclina, Athecocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	Discocyclina, Athecocyclina, Hexagonocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	Discocyclina, Athecocyclina, Hexagonocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	?Discocyclina, Athecocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	Discocyclina, Ranikothalia	Pseudo-oölithic limestone (grey to brownish-grey recrystellized)	Alter fraglich
Caudri 1944	%	Discocyclina, Athecocyclina, Hexagonocyclina, Ranikothalia	algal reef limestone blocks	ALTER???
~~Caudri 1944~~	~~%~~	~~?Camerina, Borelis, ?Meandropsina~~	~~%~~	~~%~~
~~Caudri 1944~~	~~%~~	~~Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, ?Camerina, Operculina~~	~~%~~	~~%~~
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, ?Camerina, Operculina	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, ?Camerina, Operculina	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, ?Camerina, Operculina	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, ?Camerina, Operculina	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, ?Camerina, Operculina	%	%
Caudri 1948	Senn 1940: p.587	%	%	%
Caudri 1948	%	%	%	%
Caudri 1948	%	%	%	reworked specimen derived from the Paleocene
Caudri 1948	%	%	%	%

Caudri 1948	Lepidorbitoides	sp.	%	13	early Eocene	BRB	CFP	73(4)		Barbados
Caudri 1948	Lepidorbitoides	sp.	%	10	Paleocene or early Eocene	VEN	CFP	74(2)		Trujillo, Venezuela
Caudri 1948	Lepidorbitoides	sp.	%	11	Maastrichtian	COL	CFP	74(6)		near Guaduas, Cundinamarca, Colombia
Caus 1988	Lepidorbitoides	sp.	%	32	Campanian, Maastrichtian	ESP	EFP		%	Pyrenean basin
Caus 1988	Lepidorbitoides	sp.	%	32	Campanian, Maastrichtian	ESP	EFP		%	Pyrenean basin
Caus & Hottinger 1986	Lepidorbitoides	sp.	%	%	Santonian-Campanian	%	%		%	formas cosmopolitas
Caus et al. 1988	Lepidorbitoides	socialis	%	31	Maastrichtian	FRA	EFP		%	Saint Marcet area (S France)
Caus et al. 1988	Lepidorbitoides	sp.	%	31	Maastrichtian	FRA	EFP		%	Larcan (S France)
Caus et al. 1988	Lepidorbitoides	sp.	%	31	Maastrichtian	FRA	EFP		%	Gensac (S France)
Caus et al. 1988	Lepidorbitoides	bisambergensis	%	32	Maastrichtian	ESP	EFP		%	Tremp
Caus et al. 1988	Lepidorbitoides	sp.	%	57	Maastrichtian	NLD	EFP		%	Maastricht
Caus et al. 1996	Lepidorbitoides	sp.	%	59	late Campanian	AUT	EFP		%	Pemberger, Carinthia
Caus et al. 1996	Lepidorbitoides	bisambergensis	%	57	late Maastrichtian	NLD	EFP		%	Maastricht
Caus et al. 1996	Lepidorbitoides	socialis	%	31	middle-late Maastrichtian	FRA	EFP		%	Northern Pyrenean
Caus et al. 1996	Lepidorbitoides	socialis	%	31	late Maastrichtian	FRA	EFP		%	Gensac (France); zw. Bordeaux und Bergerac
~~Caus et al. 2002~~	~~Lepidorbitoides~~	~~minima~~	~~Douvillé~~	~~52~~	~~middle-late Campanian~~	~~MEX~~	~~CFP~~	~~1(1,2)~~		~~Cárdenas Basin, San Luis Potosí, NE Mexico~~
Dilley 1973	Lepidorbitoides	sp.	Silvestri	%	Campanian-Maastrichtian	%	%		%	N America, Central America, N Europe, S Europe, S USSR, India
Ferrández-Canadell 2000	Lepidorbitoides	minor	(Schlumberger)	57	Maastrichtian	NLD	EFP	4(7)		Ency Quarry, Maastricht
Fleury et al. 1985	Lepidorbitoides	sp.	%	%	Campanian-Maastrichtian	%	%		%	old world
Fleury et al. 1985	Lepidorbitoides	sp.	%	33	Maastrichtian	DEU	EFP		%	northern Germany
Fleury et al. 1985	Lepidorbitoides	sp.	%	18	Maastrichtian	LBY	AFP		%	Libya
Fleury et al. 1985	Lepidorbitoides	sp.	%	25	Maastrichtian	YEM	AFP		%	Yemen
Fleury et al. 1985	Lepidorbitoides	sp.	%	29	Maastrichtian	MDG	AFP		%	Madagascar
Fleury et al. 1985	Lepidorbitoides	sp.	%	42	Maastrichtian	RUS	ASP		%	S Russia
Fleury et al. 1985	Lepidorbitoides	sp.	%	46	Maastrichtian	PAK	ASP		%	Pakistan
Fleury et al. 1985	Lepidorbitoides	sp.	%	44	Maastrichtian	IND	ASP		%	S India
Fleury et al. 1985	Lepidorbitoides	sp.	%	47	Maastrichtian	IDN	ASP		%	Borneo
Fleury et al. 1985	Lepidorbitoides	sp.	%	65	Maastrichtian	PHL	ASP		%	Philippines?
Fleury 1977	Lepidorbitoides	sp.	%	36	late Cretaceous	GRC	EFP		%	coupe de Vitina, Griechenland
Fleury et al. 1990	Lepidorbitoides	sp.	%	36	Maastrichtian	GRC	EFP	pl. Fig.3		Monts Valtou, Gavrovo-Tripolitza (Griechenland)
Fleury et al. 1990	Lepidorbitoides	sp.	%	74	%	YUGf	EFP		%	Yougoslavie septentionale
Fleury et al. 1990	Lepidorbitoides	sp.	%	38	%	TUR	EFP		%	Turquie centrale
Fleury et al. 1990	Lepidorbitoides	sp.	%	37	%	YUG	EFP		%	Serbie occidentale
Fleury et al. 1990	Lepidorbitoides	sp.	%	36	%	GRC	EFP		%	Grèce orientale
Fleury et al. 1990	Lepidorbitoides	sp.	%	38	%	TUR	EFP		%	Taurus oriental
Fleury et al. 1990	Lepidorbitoides	sp.	%	28	%	SYR	AFP		%	Syrie
Fleury et al. 1990	Lepidorbitoides	sp.	%	24	%	QAT	AFP		%	Qatar
Fleury et al. 1990	Lepidorbitoides	sp.	%	25	%	YEM	AFP		%	Yémen
Fleury et al. 1990	Lepidorbitoides	sp.	%	26	%	SOM	AFP		%	Somalie
Goldbeck unpubl.	Lepidorbitoides	sp.	%	32	Santonian	ESP	EFP		%	Tremp area
Govda 1964	Lepidorbitoides	blanfordi	Rao	44	Maastrichtian	IND	ASP		%	Trichinopoly district; near the village of Kallacurchi
Govda 1964	Lepidorbitoides	inornata	Rao	44	Maastrichtian	IND	ASP		%	Trichinopoly district; near the village of Kallacurchi
Hagn 1971	Lepidorbitoides	bisambergensis	(Jaeger)	33	late Campanian	DEU	EFP	4(2)		Blaue Wand, Traun-Profil, östliches Oberbayern
Hagn 1971	Lepidorbitoides	sp.	%	33	late Campanian	DEU	EFP		%	Geröll von Almagmach, SW Immenstadt, Allgäu
Hanzawa 1962	Lepidorbitoides	socialis	(Leymerie)	31	%	FRA	EFP	1(1,2)		Gensac, Haute Garonne, France
Hanzawa 1962	Lepidorbitoides	minor	(Schlumberger)	%	%	%	%	1(3-6)	%	
Hanzawa 1962	Lepidorbitoides	minor	(Schlumberger)	%	%	%	%	1(7)	%	
Hanzawa 1962	Lepidorbitoides	socialis	(Leymerie)	31	%	FRA	EFP	4(5)		St. Marcit, Haute Garonne, France
Hanzawa 1962	Lepidorbitoides	socialis	(Leymerie)	31	%	FRA	EFP	8(2)		Gensac, Haute Garonne, France
Hanzawa 1962	Lepidorbitoides	sp.	Silvestri	%	%	%	%		%	
Hanzawa 1962	Lepidorbitoides	minor	(Schlumberger)	%	Maastrichtian	%	%		%	
Hashimoto 1982	Lepidorbitoides	minor	(Schlumberger)	65	Cretaceous	PHL	ASP		%	Pinugay Hill
Hashimoto 1982	Lepidorbitoides	sp.	%	65	Cretaceous	PHL	ASP		%	Barrios Lutak and Pandan, Central Cebu
Hashimoto 1982	Lepidorbitoides	minor	%	65	Cretaceous	PHL	ASP		%	N of Bato, SE Catanduanes
Hashimoto et al. 1978b	Lepidorbitoides	sp.	%	65	Cretaceous	PHL	ASP		%	near the Pandan High School, Bo. Pandan,; on the Naga-Uling Road; Cebu
Hashimoto et al. 1978a	Lepidorbitoides	sp.	%	65	Paleocene	PHL	ASP		%	Pinugay Hill, Tanay, Rizal, Central Luzon
Hashimoto et al. 1978a	Lepidorbitoides	minor	(Schlumberger)	65	?Cretaceous-Paleocene?	PHL	ASP	8(1-3, 7,10)		Pinugay Hill, Tanay, Rizal, Central Luzon
Hashimoto et al. 1978a	Lepidorbitoides	sp.	%	65	?Cretaceous-Paleocene?	PHL	ASP		%	Pinugay Hill, Tanay, Rizal, Central Luzon
Hashimoto & Matsumaru 1981	Lepidorbitoides	minor	(Schlumberger)	65	late Maastrichtian	PHL	ASP	15(4)		5 km north of Bato, southeastern Luzon
Hashimoto & Matsumaru 1984	Lepidorbitoides	sp.	%	65	%	PHL	ASP		%	Barrios Lutak & Pandan, Pandan Valley, Central Cebu
Hashimoto & Matsumaru 1984	Lepidorbitoides	minor	%	65	Maastrichtian	PHL	ASP		%	north of San Miguel, Catanduanes
Hofker 1966	Lepidorbitoides	minor	%	57	Dano-Maastrichtian	NLD	EFP		%	nine shaft Maurits III (49)(p.214)
Hofker 1966	Lepidorbitoides	minor	%	57	Paleocene, Dano-Maastrichtian	NLD	EFP		%	drill-hole Geleen-Zuid, S.M. XV (65)(p.276;fig.134)
Hottinger & Caus 1993	Lepidorbitoides	sp.	%	%	late Campanian-Maastrichtian	%	%		%	%
Ion 1975	Lepidorbitoides	minor	%	41	early Maastrichtian	ROM	EFP		%	Risnov
Ion 1975	Lepidorbitoides	socialis	%	41	early Maastrichtian	ROM	EFP		%	Risnov
Ion 1975	Lepidorbitoides	socialis	%	41	late Maastrichtian	ROM	EFP		%	Risnov
Kureshy 1977	Lepidorbitoides	socialis	(Leymerie)	46	late Campanian - early Maastrichtian	PAK	ASP		%	Murree Brewery, Baluchistan
Kureshy 1977	Lepidorbitoides	socialis	(Leymerie)	46	late Campanian - early Maastrichtian	PAK	ASP		%	Hamai, Baluchistan
Kureshy 1977	Lepidorbitoides	socialis	(Leymerie)	46	Campanian	PAK	ASP		%	Hamai, Baluchistan
Kureshy 1977	Lepidorbitoides	minor	de Cizancourt	46	early Maastrichtian	PAK	ASP		%	Harnai, Baluchistan
Kureshy 1980	Lepidorbitoides	socialis	(Leymerie)	46	Campanian-Maastrichtian	PAK	ASP		%	Pakistan
Kureshy 1980	Lepidorbitoides	minor	de Cizancourt	46	Campanian-Maastrichtian	PAK	ASP		%	Pakistan
Kureshy 1980	Lepidorbitoides	minor	%	21	Cretaceous	BHS	CFP		%	Bahama Island
Loeblich & Tappan 1988	Lepidorbitoides	sp.	Silvestri	59	Campanian-Maastrichtian	AUT	EFP		%	Austria
Loeblich & Tappan 1988	Lepidorbitoides	sp.	Silvestri	31	Campanian-Maastrichtian	FRA	EFP		%	France
Loeblich & Tappan 1988	Lepidorbitoides	sp.	Silvestri	35	Campanian-Maastrichtian	ITA	EFP		%	Italy
Loeblich & Tappan 1988	Lepidorbitoides	sp.	Silvestri	58	Campanian-Maastrichtian	CHE	EFP		%	Switzerland
Loeblich & Tappan 1988	Lepidorbitoides	sp.	Silvestri	38	Campanian-Maastrichtian	TUR	EFP		%	Turkey
Loeblich & Tappan 1988	Lepidorbitoides	schencki	Brönnimann	56	Maastrichtian	IRN	EFP	741(9-12)		Iran
Loeblich & Tappan 1988	Lepidorbitoides	socialis	(Leymerie)	31	late Maastrichtian	FRA	EFP	742(1-6)		coast of Ternes-Saint Marcet, Dept. Haute Garonne, France
Mavrikas et al. 1994	Lepidorbitoides	sp.	%	36	late Maastrichtian	GRC	EFP		%	Ori Valtou
McGowran 1968	Lepidorbitoides	sp.	%	46	Maastrichtian	PAK	EFP		%	Sind, West Pakistan
McGowran 1968	Lepidorbitoides	sp.	%	64	Senonian to Maastrichtian	MYS	ASP		%	Sarawak (Borneo), Western Pacific, 2 0 N, 113 0 E
Meric & Coruh 1991	Lepidorbitoides	socialis	(Leymerie)	38	middle-late Maastrichtian	TUR	EFP		%	Celikli well (NW Siirt, SE Anatolia)
Meric & Coruh 1991	Lepidorbitoides	cf. minor	(Schlumberger)	38	middle-late Maastrichtian	TUR	EFP		%	Celikli well (NW Siirt, SE Anatolia)
Meric et al. 1997	Lepidorbitoides	sp.	%	38	Maastrichtian	TUR	EFP		%	Seref ikochisar (Central Anatolia-Turkey)
Nagappa 1959	Lepidorbitoides	sp.	%	44	Maastrichtian	IND	ASP	2(3)		Trichinopoly district; 10°49' N, 78°42' E
~~Neumann 1972~~	~~Lepidorbitoides~~	~~minima~~	~~Douvillé~~	~~31~~	~~late Campanian~~	~~FRA~~	~~EFP~~	~~2(3)~~		~~environs d'Aubeterre (Charente), route de Chalais~~
~~Neumann 1972~~	~~Lepidorbitoides~~	~~minima~~	~~Douvillé~~	~~32~~	~~late Campanian~~	~~ESP~~	~~EFP~~	~~2(6)~~		~~Montsech~~
~~Neumann 1972~~	~~Lepidorbitoides~~	~~minima~~	~~Douvillé~~	~~31~~	~~late Campanian~~	~~FRA~~	~~EFP~~	~~2(7)~~		~~près de Brossac~~
Neumann 1972	Lepidorbitoides	minor	Schlumberger	57	Maastrichtian	INLD	EFP	2(8-11)		Maastricht

Caudri 1948	Senn 1940: p.587	%	%	%
Caudri 1948	%	%	%	%
Caudri 1948	%	%	%	%
Caus 1988	%	%	open marine shelf	%
Caus 1988	%	%	open marine shelf	%
Caus & Hottinger 1986	%	%		%
Caus et al. 1988	%	Gansserina gansseri	offshore to foreshore	%
Caus et al. 1988	%	Gansserina gansseri	open shelf deposit	%
Caus et al. 1988	%	Gansserina gansseri	%	%
Caus et al. 1988	%	Orbitoides (apiculata, sp), Siderolites calcitrapoides	%	%
Caus et al. 1988	%	Gansserina gansseri	%	%
Caus et al. 1996	%	Orbitoides, Sirtina	%	%
Caus et al. 1996	%	Orbitoides, Siderolites, Omphalocyclus	%	%
Caus et al. 1996	%	Orbitoides, Siderolites, Omphalocyclus	%	%
Caus et al. 1996	%	Orbitoides, Siderolites	%	%
~~Caus et al. 2002~~	~~%~~	~~Sulcoperculina, Vaughanina, Orbitoides~~	~~open marine environment with terrigenous input~~	~~%~~
Dilley 1973	Table 2	%	%	%
Ferrández-Canadell 2000	%	Orbitoides (apiculata, gruenbachensis)	%	%
Fleury et al. 1985	%	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury 1977	Fig. 1	Orbitoides	%	%
Fleury et al. 1990	Fig. 1	Loftusia	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Goldbeck unpubl.	%	%	%	%
Gowda 1964	Page 305	Nummofallotia, Orbitocyclina, Siderolites	%	%
Gowda 1964	Page 305	Nummofallotia, Orbitocyclina, Siderolites	%	%
Hagn 1971	Page 20	Orbitoides, Siderolites	%	%
Hagn 1971	Page 20	Orbitoides, Siderolites, Omphalocyclus	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	Type species: Orbitolites socialis
Hanzawa 1962	%	%	%	Syn: Orbitoides minor
Hashimoto 1982	%	Omphalocyclus macroporus, Pseudorbitella or Pseudorbitoides, Sulcoperculina?	%	%
Hashimoto 1982	%	Omphalocyclus macroporus	%	%
Hashimoto 1982	%	Omphalocyclus macroporus	%	%
Hashimoto et al. 1978b	Txt-fig. 1-2	Omphalocyclus	%	Globotruncana lapparenti, G. sp.
Hashimoto et al. 1978a	Txt-fig. 1-3	%	blocky lst., bedding plane uncertain	reworked specimens
Hashimoto et al. 1978a	Txt-fig. 1-3	Omphalocyclus, Orbitoides, Pseudorbitoides, Siderolites	sharpstone-bearing conglomeratic sst.	Globotruncana lapparenti, G. sp.
Hashimoto et al. 1978a	Txt-fig. 1-3	Omphalocyclus, Orbitoides, Pseudorbitoides, Siderolites	sharpstone-bearing conglomeratic sst.	Globotruncana lapparenti, G. sp.
Hashimoto & Matsumaru 1981	Page 64	Omphalocyclus	gray limestone	%
Hashimoto & Matsumaru 1984	%	Omphalocyclus macroporus	%	Globotruncana lapparenti, G. sp.
Hashimoto & Matsumaru 1984	%	Omphalocyclus macroporus	grey limestone	%
Hofker 1966	%	%	%	%
Hofker 1966	%	%	%	%
Hottinger & Caus 1993	%	Sirtina, Hellenocyclina	%	%
Ion 1975	Fig. 1	Orbitoides (media, apiculata, tissoti), Siderolites calcitrapoide	%	%
Ion 1975	Fig. 1	Orbitoides (media, apiculata, tissoti), Siderolites calcitrapoide	%	%
Ion 1975	Fig. 1	Orbitoides, Siderolites, Omphalocyclus	%	%
Kureshy 1977	Fig. 1	Orbitoides, Siderolites, Omphalocyclus, Sulcoperculina	Carbonate facies	%
Kureshy 1977	Fig. 1	Orbitoides, Siderolites, Omphalocyclus, Sulcoperculina	hard massive, splintry, light brown in color; Carbonate facies	%
Kureshy 1977	Fig. 1	Orbitoides	%	Orbitoides tissoti zone
Kureshy 1977	Fig. 1	Omphalocyclus, Orbitoides, Siderolites, Sulcoperculina	%	Orbitoides media zone
Kureshy 1980	Page 94	Orbitoides, Omphalocyclus, Siderolites, Sulcoperculina	%	%
Kureshy 1980	Page 94	Orbitoides, Omphalocyclus, Siderolites, Sulcoperculina	%	%
Kureshy 1980	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	Type species of Orbitocyclina
Loeblich & Tappan 1988	%	%	%	%
Mavrikas et al. 1994	Fig. 1	Siderolites, Pseudedomia, Orbitoides, Hellenocyclina, Sirtina	limestones with large rudists; plate-forme externe	
McGowran 1968	%	Siderolites, Omphalocyclus	%	%
McGowran 1968	%	%	%	%
Meric & Coruh 1991	Fig. 1	Orbitoides (apiculatus, medius), Omphalocyclus macroporus, Clypeorbis mamillata, Sulcoperculina sp., Cuneolina sp., Sirtina (Iranites) ornata	%	%
Meric & Coruh 1991	Fig. 1	Orbitoides (apiculatus, medius), Omphalocyclus macroporus, Clypeorbis mamillata, Sulcoperculina sp., Cuneolina sp., Sirtina (Iranites) ornata	%	%
Meric et al. 1997	%			%
Nagappa 1959	Page 178	Siderolites	brown impure limestone	%
~~Neumann 1972~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Neumann 1972~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Neumann 1972~~	~~%~~	~~%~~	~~%~~	~~%~~
Neumann 1972	%	%	%	%

Neumann 1972	Lepidorbitoides	socialis	Leymerie	31	Maastrichtian	FRA	EFP	2(12-15)		Gensac (Haute-Garonne)
Neumann 1972	Lepidorbitoides	socialis	Leymerie	31	Maastrichtian	FRA	EFP	3(1,6)		Gensac (Basses-Pyrénées)
Neumann 1972	Lepidorbitoides	socialis	Leymerie	33	Maastrichtian	DEU	EFP	3(2,5)		Allemagne
Neumann 1972	Lepidorbitoides	minor	Schlumberger	32	Maastrichtian	ESP	EFP	3(4)		région de Tremp
Neumann 1993	Lepidorbitoides	campaniensis	%	31	Campanian	FRA	EFP		%	Aquitaine septentrionale
Neumann 1993	Lepidorbitoides	bisambergensis	%	31	Campanian	FRA	EFP		%	Aquitaine septentrionale
Neumann 1993	Lepidorbitoides	campaniensis	%	32	Campanian	ESP	EFP		%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Lepidorbitoides	bisambergensis	%	32	Campanian	ESP	EFP		%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Lepidorbitoides	pembergeri	%	59	Campanian	AUT	EFP		%	Wiesterdoff II, Alpes Carniques
Neumann 1993	Lepidorbitoides	pembergeri	%	59	Campanian	AUT	EFP		%	Pemberger III, Alpes Carniques
Neumann 1993	Lepidorbitoides	pembergeri	%	59	Campanian	AUT	EFP		%	Région de Vienne
Neumann 1993	Lepidorbitoides	bisambergensis	%	59	Campanian	AUT	EFP		%	Région de Vienne
Neumann 1993	Lepidorbitoides	bisambergensis	%	31	early Maastrichtian	FRA	EFP		%	Maurens (Dordogne)
Neumann 1993	Lepidorbitoides	minor	%	31	early Maastrichtian	FRA	EFP		%	Maurens (Dordogne)
Neumann 1993	Lepidorbitoides	minor	%	32	Maastrichtian	ESP	EFP		%	plate-formes E pyrénéennes
Neumann 1993	Lepidorbitoides	socialis	%	32	Maastrichtian	ESP	EFP		%	plate-formes E pyrénéennes
Neumann 1993	Lepidorbitoides	bisambergensis	%	32	Maastrichtian	ESP	EFP		%	Montsech
Neumann 1993	Lepidorbitoides	minor	%	32	Maastrichtian	ESP	EFP		%	Montsech
Neumann 1993	Lepidorbitoides	socialis	%	32	Maastrichtian	ESP	EFP		%	Montsech
Neumann 1993	Lepidorbitoides	bisambergensis	%	59	Maastrichtian	AUT	EFP		%	Pemberger IV, Alpes Carniques
Neumann 1993	Lepidorbitoides	bisambergensis	%	59	Maastrichtian	AUT	EFP		%	Région de Vienne
Neumann 1993	Lepidorbitoides	minor	%	59	Maastrichtian	AUT	EFP		%	Région de Vienne
Neumann 1993	Lepidorbitoides	socialis	%	59	Maastrichtian	AUT	EFP		%	Région de Vienne
Neumann 1993	Lepidorbitoides	socialis	%	71	Maastrichtian	SVK/CZE	EFP		%	Tchécoslovaquie
Özcan 1993	Lepidorbitoides	socialis	(Leymerie)	38	late Maastrichtian	TUR	EFP	fig. 4j		north-east Kahta region of Adiyaman province, south-eastern Turkey
Özcan 1993	Lepidorbitoides	sp.	%	38	late Maastrichtian	TUR	EFP	fig. 4f,g		north-east Kahta region of Adiyaman province, south-eastern Turkey
Özcan & Özkan-Altiner 1997	Lepidorbitoides	campaniensis	van Gorsel	38	late Campanian	TUR	EFP	1(1-8)		1.5 km NW of Haymana
Özcan & Özkan-Altiner 1997	Lepidorbitoides	bisambergensis	(Jaeger)	38	early Maastrichtian	TUR	EFP	2(1)		NW of Haymana
Özcan & Özkan-Altiner 1997	Lepidorbitoides	bisambergensis	(Jaeger)	38	early Maastrichtian	TUR	EFP	1(9-16)		NW of Haymana
Özcan & Özkan-Altiner 1997	Lepidorbitoides	sp.	%	38	Maastrichtian	TUR	EFP		%	1 km SW of Yesilyurt village
Özcan & Özkan-Altiner 1997	Lepidorbitoides	socialis	(Leymerie)	38	late Maastrichtian	TUR	EFP	2(2)		SW of Yesilyurt village
Özcan & Özkan-Altiner 1997	Lepidorbitoides	sp.	%	38	Maastrichtian	TUR	EFP	2(4)		near Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Lepidorbitoides	sp.	%	38	Campanian	TUR	EFP		%	500 m SE of the Kartalkaya Hill
Özcan & Özkan-Altiner 1997	Lepidorbitoides	sp.	%	38	Campanian	TUR	EFP		%	SW of Haymana
Özcan & Özkan-Altiner 1997	Lepidorbitoides	socialis	(Leymerie)	38	late Maastrichtian	TUR	EFP	2(3)		near Saridegirmen village, 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Lepidorbitoides	?campaniensis	%	38	late Campanian	TUR	EFP	4(4)		Haymana Basin
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	sp.	%	38	late Cretaceous	TUR	EFP		%	Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	sp.	%	38	Maastrichtian	TUR	EFP		%	Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	sp.	%	38	Campanian-Maastrichtian	TUR	EFP		%	Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	sp.	%	38	late Maastrichtian	TUR	EFP		%	Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	sp.	%	38	late Maastrichtian	TUR	EFP		%	Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	sp.	%	38	Campanian-Maastrichtian	TUR	EFP		%	Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	sp.	%	38	Maastrichtian	TUR	EFP		%	Kahta-Adiyaman region (southeast Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	pembergeri	(Papp)	38	Campanian	TUR	EFP	fig.3(1)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	fig.3(2)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	fig.3(3)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	fig.3(4)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	fig.3(5)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	fig.3(6)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	fig.3(7)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	fig.3(8)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(9)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(10)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(11)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(12)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(13)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(14)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(15)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(16)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	fig.3(17)		Haymana region (central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Maastrichtian	TUR	EFP	fig.3(18)		Kahta-Adiyaman region (southeast Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Maastrichtian	TUR	EFP	fig.3(19)		Kahta-Adiyaman region (southeast Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Maastrichtian	TUR	EFP	fig.3(20)		Kahta-Adiyaman region (southeast Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	bisambergensis	(Jaeger)	38	Maastrichtian	TUR	EFP	fig.3(21)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	minor	(Schlumberger)	38	Maastrichtian	TUR	EFP	fig.3(22)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(23)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(24)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(25)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(26)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(27)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(28)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(29)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999a	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	fig.3(30)		Cide and Hanönü regions (northwest central Anatolia, Turkey)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian	TUR	EFP	1(1,3)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	pembergeri	(Papp)	38	Campanian	TUR	EFP	1(2,5)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	(Jaeger)	38	Maastrichtian	TUR	EFP	1(6,7)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	minor	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	minor	(Schlumberger)	38	Maastrichtian	TUR	EFP	1(8,9)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(10,11)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(12)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(13)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(14)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(15)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	campaniensis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(16,17)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(18)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	(Leymerie)	38	Maastrichtian	TUR	EFP	1(19-24)		Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP		%	Cide area (NW Black Sea coast)

Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Özcan 1993	%	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Loftusia	sandy bioclastic carbonates	%
Özcan 1993	%	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Loftusia	sandy bioclastic carbonates	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides	coarse-grained sandstone	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides	friable siltstone-sandstone	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides	friable siltstone-sandstone	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Omphalocyclus, Siderolites	friable sandstone	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Omphalocyclus, Siderolites, Sirtina, Hellenocyclina	bioclastic	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Sirtina, Omphalocyclus, Siderolites, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Loftusia, Sirtina, Omphalocyclus, Siderolites, Hellenocyclina	friable limy sandstone and sandy limestone	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1997	Fig. 1	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999a	%	%	%	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. ventricosa-R. calcarata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. ventricosa-R. calcarata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	%	%	A. mayaroensis zone

Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	2(1-3)	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	2(4,5)	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	Campanian-Maastrichtian	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	socialis	%	38	%	TUR	EFP	%	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	(Jaeger)	38	early Maastrichtian	TUR	EFP	2(6-9)	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	(Jaeger)	38	early Maastrichtian	TUR	EFP	2(10-12)	Kahta area (SE Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis asymmetrica	n. spp.	38	Campanian-Maastrichtian	TUR	EFP	2(13)	Haymana area (central Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	campaniensis	van Gorsel	38	Campanian-Maastrichtian	TUR	EFP	2(14)	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis asymmetrica	n. spp.	38	Campanian-Maastrichtian	TUR	EFP	2(15,16)	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis asymmetrica	n. spp.	38	Campanian-Maastrichtian	TUR	EFP	2(17,18)	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis asymmetrica	n. spp.	38	Campanian-Maastrichtian	TUR	EFP	2(19-22)	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	2(23-25)	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	2(26)	Hanönü area (NW Anatolia)
Özcan & Özkan-Altiner 1999b	Lepidorbitoides	bisambergensis	(Jaeger)	38	Campanian-Maastrichtian	TUR	EFP	2(27-30)	Hanönü area (NW Anatolia)
Özkan-Altiner & Özcan 1999	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	bisambergensis	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	bisambergensis	%	38	Maastrichtian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	campaniensis	%	38	Campanian	TUR	EFP	%	Haymana region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	minor	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	minor	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	bisambergensis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	pembergeri	%	38	Campanian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	campaniensis	%	38	Campanian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	socialis	%	38	Maastrichtian	TUR	EFP	%	Cide region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	bisambergensis	%	38	Maastrichtian	TUR	EFP	%	Hanönü region
Özkan-Altiner & Özcan 1999	Lepidorbitoides	campaniensis	%	38	Campanian	TUR	EFP	%	Hanönü region
~~Papp 1954~~	~~Lepidorbitoides~~	~~minima pembergeri~~	~~n. ssp.~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~1(3,4)~~	~~Steinbruch, Pembergerriegel~~
~~Papp 1954~~	~~Lepidorbitoides~~	~~minima minima~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~1(5)~~	~~N. Gehöft Pemberger, am Waldrand~~
~~Papp 1954~~	~~Lepidorbitoides~~	~~minima minima~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~1(6)~~	~~Flysch Bisamberg, nördlich Wien~~
Papp 1954	Lepidorbitoides	bisambergensis	Jäger	59	Campanian	AUT	EFP	1(7,8)	Sandstein bei Pemberger
Papp 1954	Lepidorbitoides	minor	(Schlumberger)	57	Maastrichtian	NLD	EFP	1(9,10)	Maastricht
Papp 1954	Lepidorbitoides	socialis	(Leymerie)	31	Maastrichtian	FRA	EFP	1(11)	Gensac; Fruska-Gora
~~Papp 1955a~~	~~Lepidorbitoides~~	~~minima pembergeri~~	~~Papp~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~Abb. 1, fig.3,4~~	~~Pembergerriegel (Steinbruch)~~
~~Papp 1955a~~	~~Lepidorbitoides~~	~~minima minima~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~Abb. 1, fig.5~~	~~nördlich Pemberger, am Waldrand~~
~~Papp 1955a~~	~~Lepidorbitoides~~	~~minima minima~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~Abb. 1, fig.6~~	~~Flysch Bisamberg, nördlich Wien~~
Papp 1955a	Lepidorbitoides	bisambergensis	Jäger	59	Campanian	AUT	EFP	Abb. 1, fig.7,8	Sandstein bei Pemberger
Papp 1955a	Lepidorbitoides	minor	(Schlumberger)	57	Maastrichtian	NLD	EFP	Abb. 1, fig.9,10	Maastricht
Papp 1955a	Lepidorbitoides	socialis	(Leymerie)	31	Maastrichtian	FRA	EFP	Abb. 1, fig.11	Gensac
~~Papp 1955b~~	~~Lepidorbitoides~~	~~minima pembergeri~~	~~Papp~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~%~~	~~Steinbruch, Pembergerriegel (II)~~
~~Papp 1955b~~	~~Lepidorbitoides~~	~~minima minima~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~%~~	~~nördlich Gehöft Pemberger (III)~~
Papp 1955b	Lepidorbitoides	bisambergensis	Jäger	59	Campanian	AUT	EFP	%	östlich Gehöft Pemberger (IV)
Papp 1955c	Lepidorbitoides	cf. minor	(Schlumberger)	59	early Maastrichtian	AUT	EFP	3(3)	Krampen
~~Papp 1956a~~	~~Lepidorbitoides~~	~~minima minima~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~1(1)~~	~~Bisamberg~~
Papp 1956a	Lepidorbitoides	bisambergensis	(Jaeger)	59	Campanian	AUT	EFP	1(2,3)	Hagenbachklamm
Papp 1956a	Lepidorbitoides	minor minor	(Schlumberger)	59	Maastrichtian	AUT	EFP	1(4)	St. Andrae-Wördern
Papp 1956a	Lepidorbitoides	socialis	n. ssp.	59	Maastrichtian	AUT	EFP	1(5)	Sievering-Gspöttgraben
Papp & Küpper 1953a	Lepidorbitoides	bisambergensis	Jäger	59	Campanian	AUT	EFP	1(10)	Sandsteine Pemberger
Papp & Küpper 1953a	Lepidorbitoides	bisambergensis	Jäger	59	Campanian	AUT	EFP	3(3)	Bisamberg bei Wien
Papp & Küpper 1953a	Lepidorbitoides	bisambergensis	Jäger	59	Campanian	AUT	EFP	3(4)	Sandsteine Pemberger
Premoli Silva & Brusa 1981	Lepidorbitoides	socialis	(Leymerie)	50	middle Maastrichtian	NRU	CFP	5(6,7); 6(1,4)	Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Lepidorbitoides	minor	(Schlumberger)	50	middle Maastrichtian	NRU	CFP	6(2); 8(3,4)	Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Lepidorbitoides	bisambergensis	(Jaeger)	50	middle Maastrichtian	NRU	CFP	7(1); 9(7)	Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Lepidorbitoides	minor	(Schlumberger)	50	middle Maastrichtian	NRU	CFP	11(2)	Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Lepidorbitoides	sp.	%	50	Maastrichtian	NRU	CFP	%	Hole 462; Nauru Basin
Premoli Silva & Brusa 1981	Lepidorbitoides	sp.	%	50	Maastrichtian	NRU	CFP	%	Hole 462; Nauru Basin
Premoli Silva & Brusa 1981	Lepidorbitoides	sp.	%	50	Maastrichtian	NRU	CFP	%	Hole 462A, Nauru Basin
Premoli Silva & Brusa 1981	Lepidorbitoides	sp.	%	49	Maastrichtian	KIR	CFP	%	Hole 165A; Line Islands
Pringgoprawiro et al. 1998	Lepidorbitoides	minor	(Rutten)	47	late Cretaceous	IDN	ASP	16(1,2)	"Indonesia"
Pringgoprawiro et al. 1998	Lepidorbitoides	socialis	(Rutten)	47	late Cretaceous	IDN	ASP	%	"Indonesia"
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	58	Maastrichtian	CHE	EFP	29(1,2); 31(1,3)	Affermée
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	31	Maastrichtian	FRA	EFP	%	Frankreich
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	32	Maastrichtian	ESP	EFP	%	Spanien
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	35	Maastrichtian	ITA	EFP	%	Italien
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	36	Maastrichtian	GRC	EFP	%	Griechenland
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	36	Maastrichtian	GRC	EFP	%	Rhodos
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	69	Maastrichtian	ZYP	EFP	%	Cypern
Renz 1936	Lepidorbitoides	socialis	(Leymerie)	%	%	IND	ASP	%	Indien
Renz 1955	Lepidorbitoides?	sp.	%	10	Maastrichtian	VEN	CFP	6(4-6)	2.55 km S. 37°E of the San Juan monument at San Juan de Los Morros, in the headwaters of Guebrada Aguada
Renz 1955	Lepidorbitoides?	sp.	%	10	Maastrichtian	VEN	CFP	6(7-8)	Paso Copey, west of San Sebastián, State of Aragua
Sartorio & Venturini 1988	Lepidorbitoides	%	%	25	Maastrichtian	YEM	AFP	p. 127	Ras Fartaq, P.D.R. of Yemen
Schlanger & Premoli Silva 1981	Lepidorbitoides	%	%	50	Maastrichtian	NRU	CFP	%	Site 462, Core 48 Nauru Basin
Seiglie & Ayala-Castanares 1963	Lepidorbitoides	planasi	Rutten	1	late Maastrichtian	CUB	CFP	41(3)	Camino Real Viejo de Yaguaramas-Abreus; 5.7 km al WSW de Abreus. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Lepidorbitoides	sp.	%	%	%	%	%	42(1)	%
Seiglie & Ayala-Castanares 1963	Lepidorbitoides	aff. planasi	Rutten	1	late Maastrichtian	CUB	CFP	%	Camino interior en finca Asturias a través del potrero; 450 m NE del Batey al S de Asturias, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Lepidorbitoides	sp.	%	1	%	CUB	CFP	%	Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Lepidorbitoides	floridensis	Cole	1	Maastrichtian	CUB	CFP	41(2)	Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Lepidorbitoides	sp.	%	%	%	%	%	42(2)	%
Sirel 1991	Lepidorbitoides	sp.	%	38	late Maastrichtian	TUR	EFP	%	Cide region
van Gorsel 1973a	Lepidorbitoides	campaniensis	n. sp.	31	late Campanian	FRA	EFP	1(1,2,4); 2(1,3,4); 3(3,4); 4(3)	SE of Aubeterre
van Gorsel 1973a	Lepidorbitoides	campaniensis	n. sp.	31	late Campanian	FRA	EFP	1(3)	between Aubeterre and Ribérac
van Gorsel 1973a	Lepidorbitoides	campaniensis	n. sp.	31	late Campanian	FRA	EFP	1(5,6); 3(2); 4(1)	NW of Neuvic sur Isle
van Gorsel 1973a	Lepidorbitoides	campaniensis	n. sp.	31	late Campanian	FRA	EFP	2(2), 4(2)	NW of Chalais/Bardenac
Verhallen et al. 1984	Lepidorbitoides	sp.	%	31	Maastrichtian	FRA	EFP	%	Saint Marcet, SW France
Verhallen et al. 1984	Lepidorbitoides	sp.	%	31	Maastrichtian	FRA	EFP	%	Gensac, SW France
Visser 1951	Lepidorbitoides	minor	(Schlumberger)	32	late Cretaceous	ESP	EFP	%	N. part, Spain
Visser 1951	Lepidorbitoides	minor	(Schlumberger)	57	Hervian and Maastrichtian (Md)	NLD	EFP	%	South-Limburg, Holland
Visser 1951	Lepidorbitoides	minor	(Schlumberger)	29	late Cretaceous	MDG	AFP	%	Madagascar
Visser 1951	Lepidorbitoides	minor	(Schlumberger)	44	late Cretaceous	IND	ASP	%	South-India
Visser 1951	Lepidorbitoides	minor	(Schlumberger)	57	Maastrichtian	NLD	EFP	9(3)	under the fortress of Sint Pieter on the St. Pietersberg

Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Siderolites, Omphalocyclus, Sirtina, Clypeorbis, Helenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	%	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	R. calcarata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Omphalocyclus, Sirtina, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Omphalocyclus	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Omphalocyclus	%	possibly G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. havanensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	%	%	possibly R. calcarata zone
Özcan & Özkan-Altiner 1999b	Fig. 3	%	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özcan & Özkan-Altiner 1999b	Fig. 3	%	%	G. havanensis (?) - G. aegyptiaca (?) zone
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncanella havanensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Abathomphalus mayaroensis	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Gansserina gansseri	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Radotruncana calcarata	%	%
~~Papp 1954~~		~~%~~ ~~%~~	~~%~~	~~%~~
~~Papp 1954~~		~~%~~ ~~Siderolites~~	~~%~~	~~%~~
~~Papp 1954~~		~~%~~ ~~%~~	~~%~~	~~%~~
Papp 1954		% Siderolites	Sandstones	%
Papp 1954		% %	%	%
Papp 1954		% %	%	%
~~Papp 1955a~~		~~%~~ ~~%~~	~~%~~	~~%~~
~~Papp 1955a~~		~~%~~ ~~%~~	~~%~~	~~%~~
~~Papp 1955a~~		~~%~~ ~~%~~	~~%~~	~~%~~
Papp 1955a		% %	%	%
Papp 1955a		% %	%	%
Papp 1955a		% %	%	%
~~Papp 1955b~~	~~Fig. 1~~	~~Orbitoides (tissoti, media), Siderolites vidali, Pseudorbitoides trechmanni~~	~~%~~	~~%~~
~~Papp 1955b~~	~~Fig. 1,2~~	~~Orbitoides media, Siderolites vidali~~	~~%~~	~~%~~
Papp 1955b	Fig. 1,2	Orbitoides (tissoti, media, jaegeri), Siderolites calcitrapoides	%	%
Papp 1955c	%	%	Orbitoidenkalke	%
~~Papp 1956a~~	~~Page 137~~	~~%~~	~~%~~	~~%~~
Papp 1956a	Page 137	%	%	%
Papp 1956a	Page 137	%	%	%
Papp 1956a	Page 137	%	%	%
Papp & Küpper 1953a	%	%	Sandsteine	%
Papp & Küpper 1953a	%	%	Kreideflysch	%
Papp & Küpper 1953a	%	%	Sandsteine	%
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48 soup
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48 2) soup; 3,4) CC
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48 soup
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48 CC
Premoli Silva & Brusa 1981	Fig. 5	Sulcoperculina; Globorotalia gansseri	%	Core 46; Lepidorbitoides-Sulcoperculina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Asterorbis, Orbitocyclina; Globorotalia gansseri	%	Core 48; Lepidorbitoides-Asterorbis-Orbitocyclina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Globorotalia gansseri	%	Core 7: Lepidorbitoides assemblage
Premoli Silva & Brusa 1981	Fig. 5	Sulcoperculina; Globorotalia gansseri	%	Core 17: Lepidorbitoides-Sulcoperculina assemblage
Pringgoprawiro et al. 1998	%	%	%	
Pringgoprawiro et al. 1998	%	%	%	
Renz 1936	Page 545	%	%	A- und B-Form; DM: mm-1cm; Syn.: Orbitolites socialis, Orbitoides socialis
Renz 1936	Page 545	%	%	%
Renz 1936	Page 545	%	%	%
Renz 1936	Page 545	%	%	%
Renz 1936	Page 545	%	%	%
Renz 1936	Page 545	%	%	%
Renz 1936	Page 545	%	%	%
Renz 1936	%	%	%	%
Renz 1955	Page 69	%	%	%
Renz 1955	Page 69	%	%	%
Sartorio & Venturini 1988	%	Orbitoides, Siderolites calcitrapoides, Pseudedomia	%	%
Schlanger & Premoli Silva 1981	Fig. 2	Globotruncana gansseri	%	%
Seiglie & Ayala-Castanares 1963	Page 6	Omphalocyclus	Caliza dura, recristalizada, sacaroidea, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	%	%	%	nicht in Liste aufgeführt
Seiglie & Ayala-Castanares 1963	Page 8	Orbitoides, Sulcoperculina	Calizas duras, recristalizadas color blanco amarillento	%
Seiglie & Ayala-Castanares 1963	Page 15	Omphalocyclus, Orbitoides, Pseudorbitoides, Vaughanina, Sulcoperculina	Calcirudita a calcarenita, dura, consolidada, color gris claro	%
Seiglie & Ayala-Castanares 1963	Page 15	Omphalocyclus, Orbitoides, Pseudorbitoides, Vaughanina, Sulcoperculina	Calcirudita a calcarenita, dura, consolidada, color gris claro	%
Seiglie & Ayala-Castanares 1963	%	%	%	nicht in Liste aufgeführt
Sirel 1991	Sirel 1991: fig.1	Siderolites, Sirtina, Omphalocyclus, Hellenocyclina, Orbitoides, Navarella	light gray limestone, green and dark red siltstone, tuffit intercalation	%
van Gorsel 1973a	Fig. 1,2	Siderolites, Orbitoides, Nummofallotia	%	%
van Gorsel 1973a	Fig. 1	%	%	%
van Gorsel 1973a	Fig. 1	%	%	%
van Gorsel 1973a	Fig. 1	%	%	%
Verhallen et al. 1984	Fig. 2	%	marls	Diskussion über Evolutionslinien
Verhallen et al. 1984	Fig. 48,49	%	blue marls	Diskussion über Evolutionslinien
Visser 1951	Page 297	%	%	%
Visser 1951	Page 297	%	%	%
Visser 1951	Page 297	%	%	%
Visser 1951	Page 297	%	%	%
Visser 1951	Page 204	%	light-yellow fossil waste-bed	%

Visser 1951	Lepidorbitoides	minor	(Schlumberger)	57	Maastrichtian	NLD	EFP	11(4)		Burgerwacht-quarry
Visser 1951	Lepidorbitoides	minor	(Schlumberger)	57	Maastrichtian	NLD	EFP	11(6)		under the fortress of Sint Pieter on the St. Pietersberg
Wannier 1983	Lepidorbitoides	socialis	%	32	Maastrichtian	ESP	EFP		%	Talarn (Tremp)
Wannier 1983	Lepidorbitoides	socialis	%	31	Maastrichtian	FRA	EFP		%	Dumes (Chalosse)
Wannier 1983	Lepidorbitoides	socialis	%	31	Maastrichtian	FRA	EFP		%	Gensac (Haute Garonne)
Wannier 1983	Lepidorbitoides	minor	%	57	Maastrichtian	NLD	EFP		%	Maastricht
Zambetakis-Lekkas 1988	Lepidorbitoides	sp.	%	36	late Campanian-early Maastrichtian	GRC	EFP		%	Coupe de Chrissovitsi
Zambetakis-Lekkas 1988	Lepidorbitoides	sp.	%	36	late Campanian-early Maastrichtian	GRC	EFP		%	Coupe de Kamenitsa
Zhang et al. 2002	Lepidorbitoides	gangdisicus	%	48	late Cretaceous	CHN	ASP		%	Tibet; 29°50'N; 84°10'E
Zhang et al. 2002	Lepidorbitoides	minor	%	48	late Cretaceous	CHN	ASP		%	Tibet; 29°50'N; 84°10'E
Zhang et al. 2002	Lepidorbitoides	zhongbaensis	%	48	late Cretaceous	CHN	ASP		%	Tibet; 29°50'N; 84°10'E
Zhang et al. 2002	Lepidorbitoides	gangdisicus	%	48	late Cretaceous	CHN	ASP		%	Tibet; 29°25'N; 87°05'E

Sulcoperculina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration		Site
~~Abdelghany 2003~~	~~Sulcoperculina~~	~~dickersoni~~	~~(Palmer)~~	~~23~~	~~late Campanian-Maastrichtian~~	~~OMN~~	~~AFP~~	~~10(12)~~		~~northern Oman Mountains~~
~~Abdelghany 2003~~	~~Sulcoperculina~~	~~dickersoni~~	~~(Palmer)~~	~~23~~	~~late Campanian-Maastrichtian~~	~~OMN~~	~~AFP~~		~~%~~	~~northern Oman Mountains~~
Ayala-Castanares 1963	Sulcoperculina	sp.	%	3	late Campanian	MEX	CFP		%	la margen derecha de la Carretera Panamericana, de México a Tuxtla Gutiérrez, ca 3.9 km vor Tuxtla Gutiérrez
Ayala-Castanares 1963	Sulcoperculina	sp.	%	3	late Campanian	MEX	CFP		%	mismo afloramiento que Muestra Ay-109-57; 5 metros más alta estratigráficamente
Ayala-Castanares 1963	Sulcoperculina	sp.	%	3	late Maastrichtian (?partially early)	MEX	CFP		%	en el camino Viejo entre Ocozocuautla y Ocuilapa; ca. 100 m adelante de la Cruz del Alto de Ocuilapa; afloramiento en el piso del camino
Ayala-Castanares 1963	Sulcoperculina	sp.	%	3	late Maastrichtian (?partially early)	MEX	CFP		%	afloramiento en el piso del mismo camino, ca. 150 m adelante de la localidad 102 Chis.
Ayala-Castanares 1963	Sulcoperculina	sp.	%	3	late Maastrichtian (?partially early)	MEX	CFP		%	afloramiento sobre el piso, ca. 150 m adelante de la localidad Ay-57-57
Ayala-Castanares 1963	Sulcoperculina	sp.	%	3	late Maastrichtian (?partially early)	MEX	CFP		%	afloramiento sobre Carretera Panamericana, 16.2 km antes de llegar a Tuxtla Gutiérrez, Chis.
~~Azema et al. 1979~~	~~Sulcoperculina~~	~~sp.~~	~~%~~	~~32~~	~~Maastrichtian~~	~~ESP~~	~~EFP~~	~~40(1)~~		~~Sierra Seca (Internal Prebetic)~~
~~Azema et al. 1979~~	~~Sulcoperculina~~	~~sp.~~	~~%~~	~~32~~	~~late Senonian~~	~~ESP~~	~~EFP~~	~~41(18)~~		~~Sierra del Segura~~
~~Azema et al. 1979~~	~~Sulcoperculina~~	~~obesa~~	~~Cizancourt~~	~~32~~	~~late Senonian~~	~~ESP~~	~~EFP~~	~~41(19)~~		~~Sierra del Segura~~
~~Azema et al. 1979~~	~~Sulcoperculina~~	~~sp.~~	~~%~~	~~32~~	~~Maastrichtian~~	~~ESP~~	~~EFP~~	~~39(1)~~		~~Sierra de Argueña (Prebetic)~~
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	9	%	GTM	CFP		%	Guatemala
Brönnimann 1954b	Sulcoperculina	sp.	%	1	Maastrichtian	CUB	CFP		%	Santa Clara (Las Villas) Province; Camagücy Province, Cuba
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	1	Maastrichtian	CUB	CFP		%	Camagücy Province
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	1	late Cretaceous	CUB	CFP		%	near Habana
Brönnimann 1954b	Sulcoperculina	sp.	%	2	early Cretaceous	USA	CFP		%	Florida
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	1	Maastrichtian	CUB	CFP		%	Oriente Province
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	1	early Maastrichtian	CUB	CFP		%	Central San Antonio, Habana Province
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	1	early Maastrichtian	CUB	CFP		%	Central San Antonio, Habana Province
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	1	%	CUB	CFP		%	Pinar del Rio Province
Brönnimann 1954b	Sulcoperculina	cubensis	(Palmer)	1	%	CUB	CFP		%	Pinar del Rio Province
Brönnimann 1954b	Sulcoperculina	vermunti	(Thiadens)	1	%	CUB	CFP		%	Pinar del Rio Province
Brönnimann 1954b	Sulcoperculina	dickersoni	(Palmer)	1	Middle-late Maastrichtian	CUB	CFP		%	City of Habana
Brönnimann 1954b	Sulcoperculina	vermunti	(Thiadens)	1	Middle-late Maastrichtian	CUB	CFP		%	City of Habana
Brönnimann 1954b	Sulcoperculina	cubensis	(Palmer)	1	Middle-late Maastrichtian	CUB	CFP		%	City of Habana
Brönnimann 1955	Sulcoperculina	cf. S. vermunti	(Thiadens)	6	late Cretaceous	JAM	CFP		%	Green Island, Jamaica, B.W.I.
Brönnimann 1955	Sulcoperculina	cf. S. vermunti	(Thiadens)	1	%	CUB	CFP		%	central and southern Las Villas Province, Cuba
Brönnimann 1955	Sulcoperculina	cf. S. vermunti	(Thiadens)	1	late Cretaceous	CUB	CFP		%	Las Villas Province, Cuba
Brönnimann 1957	Sulcoperculina	sp.	%	5	Campanian	USA	CFP		%	Kinney County, southwestern Texas
Brönnimann 1957	Sulcoperculina	globosa	de Cizancourt	1	Turonian-?early Maastrichtian	CUB	CFP		%	Taguasco town, Las Villas province, Cuba
Brönnimann 1957	Sulcoperculina	cf. S. vermunti	(Thiadens)	1	Turonian-?early Maastrichtian	CUB	CFP		%	Las Villas and Oriente provinces, Cuba
Brönnimann 1957	Sulcoperculina	sp.	%	1	Turonian-?early Maastrichtian	CUB	CFP		%	Las Villas and Oriente provinces, Cuba
Brönnimann 1957	Sulcoperculina	cf. S. vermunti	(Thiadens)	1	late Campanian	CUB	CFP		%	Gibara area, Oriente province
Brönnimann 1957	Sulcoperculina	n.sp.	%	1	late Campanian	CUB	CFP		%	Gibara area, Oriente province
Brönnimann 1957	Sulcoperculina	globosa	de Cizancourt	12	?Campanian	USA	CFP		%	San German area, Puerto Rico
Brönnimann 1957	Sulcoperculina	cf. S. vermunti	(Thiadens)	12	?Campanian	USA	CFP		%	San German area, Puerto Rico
Brönnimann 1957	Sulcoperculina	sp.	%	12	?Campanian	USA	CFP		%	San German area, Puerto Rico
Brönnimann 1957	Sulcoperculina	cf. S. vermunti	(Thiadens)	7	Turonian-?early Maastrichtian	HTI	CFP		%	northwest of Plaisance, Haiti
Brönnimann 1957	Sulcoperculina	globosa	de Cizancourt	7	Turonian-?early Maastrichtian	HTI	CFP		%	northwest of Plaisance, Haiti
Brönnimann 1957	Sulcoperculina	dickersoni	(Palmer)	2	late Maastrichtian	USA	CFP		%	Naussau County, Florida
Brönnimann 1958b	Sulcoperculina	sp.	%	2	Cretaceous	USA	CFP		%	Glades County, Florida
Butterlin 1967	Sulcoperculina	dickersoni vermunti	Thiadens	3	middle or late Maastrichtian	MEX	CFP	1(1)		Forage Mulato No.1. Municipio de Loma Bonita (Etat d'Oaxaca, près de la frontière avec l'État de Vera Cruz)
Butterlin 1967	Sulcoperculina	dickersoni vermunti	Thiadens	52	Maastrichtian (late?)	MEX	CFP	1(2-4)		Route Rayon-Tamasopo (État de san Luis Potosi)
Butterlin 1967	Sulcoperculina	globosa	de Cizancourt	3	middle or late Maastrichtian	MEX	CFP	1(5,6)		Sierra de Guzmantla. Section V. région de Atoyac (État de Vera Cruz)
Butterlin 1967	Sulcoperculina	globosa	de Cizancourt	7	Campanian	HTI	CFP	1(7)		Sentier Bois Carré-Fiéfié-Pérodin; 6 km eviron au Nord de Bois Carré, altitude 800m; Montagnes Noires; République d'Haiti
Butterlin 1967	Sulcoperculina	globosa	de Cizancourt	3	middle or late Maastrichtian	MEX	CFP	1(8)		Forage Mulato No.1. Municipio de Loma Bonita (Etat d'Oaxaca, près de la frontière avec l'État de Vera Cruz)
Butterlin 1967	Sulcoperculina	globosa	de Cizancourt	7	Campanian	HTI	CFP	1(11)		Sentier Dondon-Marmelade, juste à l'Est du premier passage de la rivière de Marmelade; Massif du Nord; République d'Haiti
~~Butterlin 1967~~	~~Sulcoperculina~~	~~globosa (?)~~	~~de Cizancourt~~	~~36~~	~~late Maastrichtian~~	~~GRC~~	~~EFP~~	~~1(9,10,12-14)~~		~~du col d'altitude 860m à Kedronas, Grèce~~
~~Butterlin 1967~~	~~Sulcoperculina~~	~~globosa (?)~~	~~de Cizancourt~~	~~60~~	~~late Maastrichtian~~	~~MKD~~	~~EFP~~	~~1(15)~~		~~Chemin Kato Gramatikon à Ano Gramatikon, à la cote 1030m (Province d'Édessa, Macédoine~~)
Butterlin 1981	Sulcoperculina	vermunti	(Thiadens)	68	Campanian-Maastrichtian	MEX	CFP	16(1,2)		Mexico, Caribe
Butterlin 1981	Sulcoperculina	dickersoni	(Palmer)	68	Campanian-Maastrichtian	MEX	CFP	16(3,4)		Mexico, Caribe
Butterlin 1981	Sulcoperculina	angulata	Brown & Brönnimann	68	Maastrichtian	MEX	CFP	16(5,6)		Mexico, Caribe
Butterlin 1981	Sulcoperculina	globosa	de Cizancourt	68	Campanian-Maastrichtian	MEX	CFP	16(7,8)		Mexico, Caribe
Butterlin 1981	Sulcoperculina	cubensis	(Palmer)	68	Maastrichtian	MEX	CFP	17(1,2)		Mexico, Caribe
Butterlin 1992	Sulcoperculina	sp.	%	67	Campanian-Maastrichtian	USA	CFP		%	forage au sud d'Haweii
Butterlin 1992	Sulcoperculina	sp.	%	67	middle Maastrichtian	USA	CFP		%	forage au sud d'Haweii
Butterlin 1992	Sulcoperculina	vermunti	%	50	late Campanian	NRU	CFP		%	fosse de Nauru
Butterlin 1992	Sulcoperculina	cubensis	%	50	late Campanian	NRU	CFP		%	fosse de Nauru
Butterlin 1992	Sulcoperculina	sp.	%	50	middle Maastrichtian	NRU	CFP		%	fosse de Nauru
Caudri 1944	?Camerina (Sulcoperculina)	dickersoni	Palmer	68	Maastrichtian	MEX	CFP		%	Mexico
Caudri 1944	?Camerina (Sulcoperculina)	dickersoni	Palmer	1	Maastrichtian	CUB	CFP		%	Cuba
Caudri 1944	?Camerina (Sulcoperculina)	cubensis	Palmer	1	Maastrichtian	CUB	CFP		%	Cuba
Caudri 1944	?Camerina (Sulcoperculina)	vermunti	Thiadens	1	Maastrichtian	CUB	CFP		%	Cuba
Caudri 1948	Sulcoperculina	vermunti	Thiadens	11	Maastrichtian	COL	CFP	74(1,4,7)		near Guaduas, Cundinamarce, Colombia
Caus et al. 2002	Sulcoperculina	dickersoni	(Palmer)	52	middle-late Campanian	MEX	CFP	1(3)		Cárdenas Basin; San Luis Potosí, NE Mexico
Caus et al. 2002	Sulcoperculina	globosa	Cizancourt	52	middle-late Campanian	MEX	CFP		%	Cárdenas Basin; San Luis Potosí, NE Mexico
Dilley 1973	Sulcoperculina	sp.	Thalmann	%	Campanian-Maastrichtian	%	CFP		%	Central America
Hanzawa 1962	Sulcoperculina	dickersoni	(Palmer)	1	%	CUB	CFP	8(5)		1 km W of Central San Antonio, Habana Province, Cuba
Hanzawa 1962	Sulcoperculina	sp.	Thalmann	%	late Cretaceous	%	%		%	%
Hottinger 1966	Sulcoperculina	dickersoni	(Palmer)	1	late Cretaceous	CUB	CFP	10(B)		Cuba
~~Hottinger 1966~~	~~Sulcoperculina~~	~~aff. cubensis~~	~~(Palmer)~~	~~32~~	~~Santonian~~	~~ESP~~	~~EFP~~	~~9(A); 10(E)~~		~~Sierra del Montsech~~

Visser 1951	Page 204	%	somewhat darker yellow fossil-waste-bed	%
Visser 1951	Page 204	%	light-yellow/Bryozoa-bed	%
Wannier 1983	%	Siderolites (cataloniensis, calcitrapoides)	marno-calcaires	Phylozone à Lepidorbitoides socialis
Wannier 1983	%	Siderolites calcitrapoides	%	Phylozone à Lepidorbitoides socialis
Wannier 1983	%	Siderolites (calcitrapoides, denticulatus)	%	Phylozone à Lepidorbitoides socialis
Wannier 1983	%	Siderolites (calcitrapoides, denticulatus)	tuffeau	Phylozone à Lepidorbitoides socialis
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zhang et al. 2002	Fig. 1	%	bioclastic limestone	%
Zhang et al. 2002	Fig. 1	%	bioclastic limestone	%
Zhang et al. 2002	Fig. 1	%	bioclastic limestone	%
Zhang et al. 2002	Fig. 1	%	reef limestone	%

Sulcoperculina

Publication	Loc.-Descr.	Association	Lithology and Facies	Remarks
~~Abdelghany 2003~~	~~Fig. 1~~	~~Siderolites~~	~~limestone, pink limestone~~	~~%~~
~~Abdelghany 2003~~	~~Fig. 1~~	~~Siderolites~~	~~chalky limestone~~	~~%~~
Ayala-Castanares 1963	Page 61	Orbitoides, Lepidorbitoides, Pseudorbitoides	gravas de color pardo amarillento	austührliche Lokalität im text
Ayala-Castanares 1963	Page 62	Orbitoides, Lepidorbitoides, Pseudorbitoides	gravas de color pardo amarillento	%
Ayala-Castanares 1963	Page 62	Orbitoides, Vaughanina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 62	Orbitoides, Vaughanina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 63	Orbitoides, Vaughanina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 64	Orbitoides	Calizas arenosas en capas gruesas, de color crema, intemperizan en pardo amarillento	%
~~Azema et al. 1979~~	~~%~~	~~Orbitoides, Lepidorbitoides, Siderolites~~	~~biomicrorudite (grainstone); open platform environment~~	~~%~~
~~Azema et al. 1979~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Azema et al. 1979~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Azema et al. 1979~~	~~%~~	~~Siderolites, Orbitoides, Lepidorbitoides~~	~~terrigenous biomicritic limestone (packstone), irregularly recrystallized; open carbonate platform facies~~	~~%~~
Brönnimann 1954b	%	?Pseudorbitoides	%	%
Brönnimann 1954b	%	Lepidorbitoides, Pseudorbitoides, Orbitoides, ?Meandropsina	%	%
Brönnimann 1954b	%	Vaughanina	%	%
Brönnimann 1954b	%	Vaughanina, ?Meandropsina	%	%
Brönnimann 1954b	%	Lepidorbitoides	%	%
Brönnimann 1954b	%	Vaughanina, Omphalocyclus, Orbitoides, Lepidorbitoides	%	%
Brönnimann 1954b	Page 95	Orbitoides, Omphalocyclus	%	%
Brönnimann 1954b	Page 95	%	%	%
Brönnimann 1954b	Page 95	Vaughanina, Omphalocyclus, Cuneolina, Sulcoperculina	%	%
Brönnimann 1954b	Page 95	Vaughanina, Omphalocyclus, Cuneolina, Sulcoperculina	%	%
Brönnimann 1954b	Page 95	Vaughanina, Omphalocyclus, Cuneolina, Sulcoperculina	%	%
Brönnimann 1954b	Page 95	Vaughanina, ?Meandropsina, Sulcoperculina	%	%
Brönnimann 1954b	Page 95	Vaughanina, ?Meandropsina, Sulcoperculina	%	%
Brönnimann 1954b	Page 95	Vaughanina, ?Meandropsina, Sulcoperculina	%	%
Brönnimann 1955	%	Pseudorbitoides	hard, yellow-brown, fragmental limestone	%
Brönnimann 1955	%	Pseudorbitoides, Sulcoperculina	%	%
Brönnimann 1955	%	Pseudorbitoides	heterogeneous, fragmental limestone	%
Brönnimann 1957	%	Pseudorbitoides	%	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina	%	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina	%	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina	%	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina, Cuneolina	limestone (fore-reef with deeper water intluence)	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina, Cuneolina	limestone (fore-reef with deeper water intluence)	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina	%	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina	%	%
Brönnimann 1957	%	Pseudorbitoides, Sulcoperculina	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	Vaughanina, Orbitoides	%	%
Brönnimann 1958b	Page 429	Lepidorbitoides, Pseudorbitoides, Orbitoides, Vaughanina	cream white microcoquinoid calcilutite	well cutting, Coastal Petroleum Company No.1, T 42 s - R 33 E - Sec. 25; Depth: below5800 ft
Butterlin 1967	%	Vaughanina, Orbitoides	%	Depth: 851,3-854,4m
Butterlin 1967	%	Lepidorbitoides	%	%
Butterlin 1967	%	Vaughanina	%	%
Butterlin 1967	%	Orbitoides	%	%
Butterlin 1967	%	Vaughanina, Orbitoides	%	%
Butterlin 1967	%	Pseudorbitoides	%	%
~~Butterlin 1967~~	~~%~~	~~Orbitoides, Omphalocyclus, Lepidorbitoides, Siderolites~~	~~%~~	~~%~~
~~Butterlin 1967~~	~~%~~	~~Lepidorbitoides, Orbitoides, Siderolites~~	~~%~~	~~%~~
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1992	DSDP	Lepidorbitoides, Pseudorbitoides	%	%
Butterlin 1992	DSDP	Vaughanina, Pseudorbitoides	%	Maastrichtien supérieur (Douglas 1973)
Butterlin 1992	DSDP	Pseudorbitoides, Vaughanina	%	zone à *Globtruncana subspinosa* (52.1) et *G. calcarata* (51.3)
Butterlin 1992	DSDP	Pseudorbitoides, Vaughanina	%	zone à *Globtruncana subspinosa* (52.1) et *G. calcarata* (51.3)
Butterlin 1992	DSDP	Lepidorbitoides, Orbitocyclina, Pseudorbitoides, Vaughanina	%	zone à *Globtruncana gansseri*
Caudri 1944	%	Lepidorbitoides, ?Meandropsina	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, Lepidorbitoides	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, Lepidorbitoides	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina, Lepidorbitoides	%	%
Caudri 1948	%	%	%	%
Caus et al. 2002	Page 138	Lepidorbitoides, Vaughanina, Orbitoides	interbedded silty limestone and argillaceous marl, intercalations of limestone rich in rudiss or other molluscs; open marine environment with terrigenous input	%
Caus et al. 2002	Page 138	Lepidorbitoides, Vaughanina, Orbitoides	interbedded silty limestone and argillaceous marl, intercalations of limestone rich in rudiss or other molluscs; open marine environment with terrigenous input	%
Dilley 1973	Table II	%	%	%
Hanzawa 1962	%	%	%	Syn.: Miscellanea dickersoni var. vermunti of Cole, 1947
Hanzawa 1962	%	%	%	Type species: Camerina? dickersoni; Syn.: Sulcoperculina cf. dickersoni
Hottinger 1966	%	%	%	%
~~Hottinger 1966~~	~~Fig. 2~~	~~%~~	~~calcaires plus ou moins marneux ou détritiques de couleur sombre~~	~~%~~

~~Hottinger 1966~~	~~Sulcoperculina~~	~~aff. cubensis~~	~~(Palmer)~~	~~32~~	~~Campanian~~	~~ESP~~	~~EFP~~	~~10(C,D); 11(A-E)~~	~~Montsech~~
~~Ismail & Boukhary 2001~~	~~Sulcoperculina~~	~~dickersoni~~	~~(Palmer)~~	~~20~~	~~Campanian~~	~~EGY~~	~~AFP~~	~~4(1-7)~~	~~Southern Galala, Eastern Desert, Egypt; 29°03' 29°05'N; 32°37' 32°35'E~~
~~Ismail & Boukhary 2001~~	~~Sulcoperculina~~	~~globosa~~	~~de Cizancourt~~	~~20~~	~~Campanian~~	~~EGY~~	~~AFP~~	~~2(5-7)~~	~~Southern Galala, Eastern Desert, Egypt; 29°03' 29°05'N; 32°37' 32°35'E~~
Krijnen 1967	Sulcoperculina	cf. S. globosa	de Cizancourt	13	late Campanian-early Maastrichtian	DWI	CFP	%	1500 m ESE of the Country-house San Juan, Central Curacao (Lat:12°14', Long:69°05'06")
Krijnen 1972	Sulcoperculina	sp.	%	6	%	JAM	CFP	%	Parish of Hanover, near Green Island and Haughton Hall, West Jamaica
Krijnen 1972	Sulcoperculina	sp.	%	6	late Campanian-early Maastrichtian	JAM	CFP	%	Parish of St. James, between Sunderland and Amity Hall, the Sunderland Inlier
Krijnen 1972	Sulcoperculina	sp.	%	6	Maastrichtian	JAM	CFP	%	Parish of St. James, about 100 to 150 m E of Stapleton, the Sunderland Inlier
Krijnen 1972	Sulcoperculina	sp.	%	6	Maastrichtian	JAM	CFP	%	Parish of St. James, between Amity Hall and Kensington, Sunderland Inlier
Krijnen 1972	Sulcoperculina	sp.	%	6	Maastrichtian	JAM	CFP	%	Parish of St. James between Amity Hall, Kensington and Stapleton, Sunderland Inlier
Krijnen 1972	Sulcoperculina	sp.	%	6	Maastrichtian	JAM	CFP	%	Parish of St. James near Stapleton, Sunderland Inlier
Krijnen 1972	Sulcoperculina	sp.	%	6	Maastrichtian	JAM	CFP	%	Parish of St. James near Stapleton, Sunderland Inlier
Krijnen 1972	Sulcoperculina	sp.	%	13	%	DWI	CFP	%	1500 m ESE of the Country-house St. Jan, Central Curacao
~~Kureshy 1977~~	~~Sulcoperculina~~	~~globosa~~	~~de Cizancourt~~	~~46~~	~~Maastrichtian~~	~~PAK~~	~~ASP~~	~~%~~	~~Lakhi Range, Sind~~
~~Kureshy 1977~~	~~Sulcoperculina~~	~~globosa~~	~~de Cizancourt~~	~~46~~	~~late Campanian - early Maastrichtian~~	~~PAK~~	~~ASP~~	~~%~~	~~Murree Brewery, Baluchistan~~
~~Kureshy 1977~~	~~Sulcoperculina~~	~~globosa~~	~~de Cizancourt~~	~~46~~	~~late Campanian - early Maastrichtian~~	~~PAK~~	~~ASP~~	~~%~~	~~Harrai, Baluchistan~~
~~Kureshy 1977~~	~~Sulcoperculina~~	~~globosa~~	~~de Cizancourt~~	~~46~~	~~early Maastrichtian~~	~~PAK~~	~~ASP~~	~~%~~	~~Harrai, Baluchistan~~
~~Kureshy 1980~~	~~Sulcoperculina~~	~~globosa~~	~~de Cizancourt~~	~~46~~	~~Campanian-Maastrichtian~~	~~PAK~~	~~ASP~~	~~%~~	~~Pakistan~~
Loeblich & Tappan 1988	Sulcoperculina	sp.	Thalmann	1	Campanian-Maastrichtian	CUB	CFP	%	Cuba
Loeblich & Tappan 1988	Sulcoperculina	sp.	Thalmann	7	Campanian-Maastrichtian	HTI	CFP	%	Haiti
Loeblich & Tappan 1988	Sulcoperculina	sp.	Thalmann	6	Campanian-Maastrichtian	JAM	CFP	%	Jamaica
Loeblich & Tappan 1988	Sulcoperculina	sp.	Thalmann	10	Campanian-Maastrichtian	VEN	CFP	%	Venezuela
Loeblich & Tappan 1988	Sulcoperculina	sp.	Thalmann	68	Campanian-Maastrichtian	MEX	CFP	%	Mexico
~~Loeblich & Tappan 1988~~	~~Sulcoperculina~~	~~sp.~~	~~Thalmann~~	~~36~~	~~Campanian-Maastrichtian~~	~~GRC~~	~~EFP~~	~~%~~	~~Greece~~
Loeblich & Tappan 1988	Sulcoperculina	dickersoni	(Palmer)	1	late Cretaceous	CUB	CFP	745(1-3,6-8)	Habana Prov., Cuba
Loeblich & Tappan 1988	Sulcoperculina	dickersoni	(Palmer)	1	late Cretaceous	CUB	CFP	745(4,5)	Santa Clara Prov., Cuba
~~Mavrikas et al. 1994~~	~~Sulcoperculina~~	~~sp.~~	~~%~~	~~36~~	~~late Maastrichtian~~	~~GRC~~	~~EFP~~	~~%~~	~~Ori Valtou~~
~~Meric & Coruh 1991~~	~~Sulcoperculina~~	~~sp.~~	~~%~~	~~38~~	~~Middle-late Maastrichtian~~	~~TUR~~	~~EFP~~	~~%~~	~~NW Siirt, SE Anatolia~~
Palmer 1934	?Camerina	dickersoni	n. sp.	1	late Cretaceous	CUB	CFP	14(1,2,4,6,8)	1 km W of Banos de Ciego Montero, Santa Clara Province
Palmer 1934	?Camerina	cubensis	n. sp.	1	late Cretaceous	CUB	CFP	14(3,5,7)	9 km W of Santa Clara, 3 km S of Carretera Central, Santa Clara Province
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	P1, La Trinitaria
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	P2, La Trinitaria
Pécheux 1984	Sulcoperculina	dickersoni	%	3	Campanian-Maastrichtian	MEX	CFP	%	P2, La Trinitaria
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	sp.	%	3	Campanian-Maastrichtian	MEX	CFP	%	P2, La Trinitaria
Pécheux 1984	Sulcoperculina	sp.	%	3	Campanian-Maastrichtian	MEX	CFP	%	P2, La Trinitaria
Pécheux 1984	Sulcoperculina	vermunti	%	3	Campanian-Maastrichtian	MEX	CFP	%	P3, La Trinitaria
Pécheux 1984	Sulcoperculina	sp.	%	3	Campanian-Maastrichtian	MEX	CFP	%	P3, La Trinitaria
Pécheux 1984	Sulcoperculina	globosa	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	globosa	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Sulcoperculina	globosa	%	3	Campanian-Maastrichtian	MEX	CFP	%	P1, La Trinitaria
Pécheux 1984	Sulcoperculina	globosa	%	3	Campanian-Maastrichtian	MEX	CFP	%	P3, La Trinitaria
Pécheux 1984	Sulcoperculina	sp.	%	3	Campanian-Maastrichtian	MEX	CFP	%	P3, La Trinitaria
Pécheux 1984	Sulcoperculina	globosa	%	3	Campanian-Maastrichtian	MEX	CFP	%	P3, La Trinitaria
Pécheux 1984	Sulcoperculina	vermunti	%		%	MEX	CFP	7(19,20)	%
Pessagno 1962	Sulcoperculina	dickersoni	(Palmer)	12	early Maastrichtian	USA	CFP	%	between Ponce and Juana Diaz, south-central Puerto Rico
Pessagno 1962	Sulcoperculina	dickersoni	(Palmer)	12	early Maastrichtian	USA	CFP	%	between Ponce and Juana Diaz, south-central Puerto Rico
Pessagno 1962	Sulcoperculina	dickersoni	(Palmer)	12	early Maastrichtian	USA	CFP	%	between Ponce and Adjuntos, south-central Puerto Rico
Pessagno 1962	Sulcoperculina	dickersoni	(Palmer)	12	early Maastrichtian	USA	CFP	%	between Ponce and Adjuntos, south-central Puerto Rico
Pessagno 1962	Sulcoperculina	dickersoni	(Palmer)	12	early Maastrichtian	USA	CFP	%	between Ponce and Adjuntos, south-central Puerto Rico
Pessagno 1962	Sulcoperculina	dickersoni	(Palmer)	12	Campanian	USA	CFP	%	south-central Puerto Rico
Premoli Silva & Brusa 1981	Sulcoperculina	cubensis	Palmer	50	middle Maastrichtian	NRU	CFP	1(12); 6(3); 9(8)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Sulcoperculina	sp.	%	50	middle Maastrichtian	NRU	CFP	2(9)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Sulcoperculina	vermunti	Thiadens	50	middle Maastrichtian	NRU	CFP	3(3,4)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Sulcoperculina	vermunti	Thiadens	50	middle Maastrichtian	NRU	CFP	%	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Sulcoperculina	sp.	%	50	Maastrichtian	NRU	CFP	%	Hole 462; Nauru Basin
Premoli Silva & Brusa 1981	Sulcoperculina	sp.	%	49	Maastrichtian	KIR	CFP	%	Hole 165A; Line Islands
Premoli Silva & Brusa 1981	Sulcoperculina	sp.	%	49	Maastrichtian	KIR	CFP	%	Hole 315A; Line Islands
Renz 1955	Sulcoperculina	globosa	de Cizancourt	10	Maestrichtian	VEN	CFP	1(3,4,7,8)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Sulcoperculina	globosa	de Cizancourt	10	Maestrichtian	VEN	CFP	1(5)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Sulcoperculina	globosa	de Cizancourt	10	Maestrichtian	VEN	CFP	1(6)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Sulcoperculina	obesa	de Cizancourt	10	Maestrichtian	VEN	CFP	2(1-2)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Sulcoperculina	dickersoni var. vermunti	(Thiadens)	10	Maestrichtian	VEN	CFP	2(3-6)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Sulcoperculina	dickersoni var. vermunti	(Thiadens)	10	Maestrichtian	VEN	CFP	2(7)	Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Sulcoperculina	dickersoni var. vermunti	(Thiadens)	1	%	CUB	CFP	2(8)	Kilometer 10, Pinar del Río - Luis Lazo road, Pinar del Río Province, Cuba
Renz 1955	Sulcoperculina	dickersoni var. vermunti	(Thiadens)	1	%	CUB	CFP	3(1)	Kilometer 10, Pinar del Río - Luis Lazo road, Pinar del Río Province, Cuba
Rosales Dominguez et al. 1994	Sulcoperculina	globosa	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Rìo Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	globosa	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Rìo Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	globosa	%	3	late Campanian-Maastrichtian	MEX	CFP	4(3)	Rìo Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	globosa	%	3	late Campanian-Maastrichtian	MEX	CFP	4(4)	Rìo Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	vermunti	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Rìo Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	vermunti	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Rìo Suchiapa, SE de Tuxtla Gutiérrez

~~Hottinger 1966~~	~~Fig. 2~~	~~%~~	~~%~~	~~%~~
~~Ismail & Boukhary 2001~~	~~%~~	~~Orbitoides, Omphalocyclus, Sulcoperculina~~	~~%~~	~~%~~
~~Ismail & Boukhary 2001~~	~~%~~	~~Orbitoides, Omphalocyclus, Sulcoperculina~~	~~%~~	~~%~~
Krijnen 1967	Fig. 1	Pseudorbitoides	hard calcarenite with conglomeratic layers near the base	%
Krijnen 1972	Fig. 1	Pseudorbitoides	%	%
Krijnen 1972	Fig. 1	Pseudorbitoides	sandy-silty level	%
Krijnen 1972	Fig. 1	Pseudorbitoides	%	%
Krijnen 1972	Fig. 1	Pseudorbitoides	marly bed	%
Krijnen 1972	Fig. 1	Pseudorbitoides	%	%
Krijnen 1972	Fig. 1	Pseudorbitoides	thin fossiliferous layer in outcropping sandy-conglomeratic sediments	%
Krijnen 1972	Fig. 1	Pseudorbitoides	%	%
Krijnen 1972	Fig. 1	Pseudorbitoides	calcarenitic limestone lenses	%
~~Kureshy 1977~~	~~Fig. 1~~	~~Siderolites, Omphalocyclus, Orbitoides~~	~~%~~	~~Orbitoides media zone~~
~~Kureshy 1977~~	~~Fig. 1~~	~~Lepidorbitoides, Orbitoides, Siderolites, Omphalocyclus~~	~~Carbonate facies~~	~~%~~
~~Kureshy 1977~~	~~Fig. 1~~	~~Orbitoides, Lepidorbitoides, Siderolites, Omphalocyclus~~	~~hard massive, splintry, light brown in color; Carbonate facies~~	~~%~~
~~Kureshy 1977~~	~~Fig. 1~~	~~Omphalocyclus, Orbitoides, Siderolites, Lepidorbitoides~~	~~%~~	~~Orbitoides media zone~~
~~Kureshy 1980~~	~~Page 94~~	~~Orbitoides, Lepidorbitoides, Omphalocyclus, Siderolites~~	~~%~~	~~%~~
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
~~Loeblich & Tappan 1988~~	~~%~~	~~%~~	~~%~~	~~%~~
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
~~Mavrikas et al. 1994~~	~~Fig. 1~~	~~%~~	~~limestones with large rudists~~	~~%~~
~~Meric & Coruh 1991~~	~~Fig. 1~~	~~Orbitoides, Omphalocyclus, Lepidorbitoides, Clypeorbis, Cuneolina, Sirtina~~	~~%~~	~~%~~
Palmer 1934	%	%	yellow marls	type species of *Sulcoperculina*
Palmer 1934	%	Orbitocyclina	%	syn.: *Sulcoperculina cubensis*
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Pseudorbitoides	marnes et calcaires	%
Pécheux 1984	%	Globigerina	marnes brunes et de calcaires bioclastiques	%
Pécheux 1984	%	Globigerina	marnes brunes et de calcaires bioclastiques	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Chubbina	marnes grises et conglomérats à éléments de socle	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Vaughanina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Vaughanina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	%	%	calcaires marneux	%
Pécheux 1984	%	Chubbina, Praealveolina, Orbitoides, ?Kathina	brèche massive	%
Pécheux 1984	%	Pseudorbitoides, Torreina, Globotruncana, Heterohelix, Pithonella	marnes brunes à grises	%
Pécheux 1984	%	Pseudorbitoides, Torreina, Globotruncana, Heterohelix, Pithonella	marnes brunes à grises	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, ?Kathina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, ?Kathina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Pseudorbitoides	marnes et calcaires	%
Pécheux 1984	%	Pseudorbitoides, Torreina, Pithonella	calcaires blancs	%
Pécheux 1984	%	Pseudorbitoides, Torreina, Globotruncana, Heterohelix, Pithonella	marnes brunes à grises	%
Pécheux 1984	%	Pseudorbitoides, Torreina, Globotruncana, Heterohelix, Pithonella	marnes brunes à grises	%
Pécheux 1984	%	%	%	%
Pessagno 1962	Txt-Fig. 1	Kathina	%	%
Pessagno 1962	Txt-Fig. 1	Kathina	%	%
Pessagno 1962	Txt-Fig. 1	Miliolids, Pseudogümbelina, Kathina, Vaughanina	massive limestones	Globotruncana fornicata-lapparenti-stuarti assemblage zone; thin section;Pessagno (MS., p.62): forams and limey muds transported to Rio Yauco sea floor by turbidity currents
Pessagno 1962	Txt-Fig. 1	Miliolids, Vaughanina	massive limestones	Globotruncana fornicata-lapparenti-stuarti assemblage zone; thin section; Pessagno (MS., p.62): forams and limey muds transported to Rio Yauco sea floor by turbidity currents
Pessagno 1962	Txt-Fig. 1	Miliolids, Pseudorbitoides	massive limestones	thin section; Pessagno (MS., p.62): forams and limey muds transported to Rio Yauco sea floor by turbidity currents
Pessagno 1962	%	%	limestone	%
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48-2; Depth: 78-81 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48-1; Depth: 11-13 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48-2; Depth: 78-81 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48-1; Depth: 11-13 cm; Core 51-3; Depth: 44-47 cm; Core 51-3; Depth: 44-47 cm; Core 52-1; Depth: 98-101 cm
Premoli Silva & Brusa 1981	Fig. 5	Lepidorbitoides; Globorotalia gansseri	%	Core 46; Lepidorbitoides-Sulcoperculina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Lepidorbitoides; Globorotalia gansseri	%	Core 17: Lepidorbitoides-Sulcoperculina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Globorotalia gansseri	%	Core 17/18: Sulcoperculina-Pseudorbitoididae assemblage
Renz 1955	Renz 1955: p.64	%	%	%
Renz 1955	Renz 1955: p.64	%	%	%
Renz 1955	Renz 1955: p.64	%	%	%
Renz 1955	Renz 1955: p.65	%	%	%
Renz 1955	Renz 1955: p.65	%	%	%
Renz 1955	Renz 1955: p.65	%	%	%
Renz 1955	Renz 1955: p.65	%	%	%
Renz 1955	Renz 1955: p.66	%	%	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%

Rosales Dominguez et al. 1994	Sulcoperculina	vermunti	%	3	late Campanian-Maastrichtian	MEX	CFP	%		Rio Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	vermunti	%	3	late Campanian-Maastrichtian	MEX	CFP	%		Rio Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	vermunti	%	3	late Campanian-Maastrichtian	MEX	CFP	%		Rio Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Sulcoperculina	diazi	%	3	late Campanian-Maastrichtian	MEX	CFP	%		Rio Suchiapa, SE de Tuxtla Gutiérrez
Schlanger & Premoli Silva 1981	Sulcoperculina	sp.	%	49	Campanian-Maastrichtian	KIR	CFP	%		adjacent to the Line Islands
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Camino vecinal Yaguaramas-Tierra Nueva-Alava; 3.15 kms. al NE del entronque con el circuito Sur, frente a la finca Ocujito, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Camino Alava-Bidasoa; finca La Cienfueguera; 1.7 km. al NW del río Mayor, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina (?)	minima	sp. nov.	1	Campanian	CUB	CFP	8(1-4)		Camino Serventia-La Carrera; 3.6 km. ESE del Central Perseverancia, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Camino Viejo de Yaguaramas-Abreus; 2.3 kms. al WSW del Batey Cienaguita; 3 kms. al N de Algodones. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Camino Real Viejo de Yaguaramas-Abreus; 400 m. al W del Batey Cienaguita. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	cf. S. globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		Camino interior en finca Asturias; a través del potrero; 480 m NE del entronque del camino Serventia del Real Campina-finca Asturias con el camino Circulatión del Hato Magdalena; 1 km de los Ferrocarriles Occidentales de Cuba; 4 km SE del Central Perseverancia
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Camino interior en finca Asturias a través del potrero; 450 m NE del Batey al S de Asturias, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	dickersoni	(Palmer)	1	Campanian-early Maastrichtian	CUB	CFP	%		Pozo Ranchuelo A, situado 5.5 km al SW de Aguada de Pasajeros; núcleo aproximadamente a 977 pies de profundidad. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	dickersoni	(Palmer)	1	Campanian-early Maastrichtian	CUB	CFP	4(1-3)		Pozo Ranchuelo A, núcleo de 1267 a 1270 pies de profundidad.
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Pozo Ranchuelo A, núcleo de 1267 a 1270 pies de profundidad.
Seiglie & Ayala-Castanares 1963	Sulcoperculina	dickersoni	(Palmer)	1	Campanian-early Maastrichtian	CUB	CFP	4(4)		Pozo Ranchuelo A, núcleo de 1388 a 1395 pies de profundidad.
Seiglie & Ayala-Castanares 1963	Sulcoperculina	dickersoni	(Palmer)	1	Campanian-early Maastrichtian	CUB	CFP	%		Pozo Ranchuelo A, núcleo de 1780 a 1781 pies y 6 pulgadas de profundidad.
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Pozo Ranchuelo A, núcleo de 1801 a 1802 pies de profundidad.
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		500 m al S de Provincial
Seiglie & Ayala-Castanares 1963	Sulcoperculina	cf. S. globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		Extremo NW de la loma Guayos, situada a 2.8 km al SE del pueblo de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		600 m al SSW de Chirino Prov. Matanzas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	angulata	Brown & Brönnimann	1	Campanian-Maastrichtian	CUB	CFP	5(4)		5 km al S del trébol de la Via Monumental sobre la Vía Blanca, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Camino de Guayos a Neiva, 500 m aproximadamente antes de Neiva, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	cf. S. globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		Cantera San Juan Bosco en el antiguo camino de Sti. Spiritus-Zaza; a 2.75 km al ENE del entronque de la Carretera Central con el Central Tuinucú, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Lado SW de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Sulcoperculina	globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		Lado SW de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Lado SW de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Sulcoperculina	globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		Lado SW de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Lado N de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	diazi	sp. nov.	1	Campanian	CUB	CFP	%		Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	diazi	sp. nov.	1	Campanian	CUB	CFP	7(1)		Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		6.2 km de Fomento en el camino a Pedrero
Seiglie & Ayala-Castanares 1963	Sulcoperculina	diazi	sp. nov.	1	Campanian	CUB	CFP	6(1-2); 7(2-3)		6.2 km de Fomento en el camino a Pedrero; afloramiento al E del camino, antes de llegar a una casa, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	cf. S. globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		Camino de Fomento a Sta. Lucia, 200 m antes de llegar a La Redonda, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Sulcoperculina	sp.	%	1	%	CUB	CFP	%		Cantera Penalver, en el tramo de la Via Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Sulcoperculina	globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	5(1)		Cantera Penalver, en el tramo de la Via Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Sulcoperculina	globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	5(2)		Profundidad 2789-2808 pies
Seiglie & Ayala-Castanares 1963	Sulcoperculina	globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	%		Profundidad 2808-2830 pies
Seiglie & Ayala-Castanares 1963	Sulcoperculina	globosa	de Cizancourt	1	late Campanian-Maastrichtian	CUB	CFP	5(3)		Profundidad 976-981 pies
Seiglie & Ayala-Castanares 1963	Sulcoperculina	diazi	sp. nov.	1	Campanian	CUB	CFP	6(3-4)		%

Pseudorbitoides

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Ayala-Castanares 1963	Pseudorbitoides	sp.	%	3	late Campanian	MEX	CFP	%	rargen derecha de la Carretera Panamericana, de México a Tuxtla Gutiérrez, ca. 3,9 km vor Tuxtla Gutiérrez
Ayala-Castanares 1963	Pseudorbitoides	sp.	%	3	late Campanian	MEX	CFP	%	nismo afloramiento que la muestra Ay-109-57, 5 m más alta estratigráficamente
Brönnimann 1954b	Pseudorbitoides	sp.	%	1	Maestrichtian	CUB	CFP	%	Santa Clara (Las Villas) Province, and Camagüey Province, Cuba
Brönnimann 1954b	Pseudorbitoides	israelskyi	Vaughan & Cole	2	late Cretaceous	USA	CFP	%	Florida
Brönnimann 1954b	?Pseudorbitoides	sp.	Cole	2	early Cretaceous	USA	CFP	%	Florida
Brönnimann 1955	Pseudorbitoides	trechmanni	Douvillé	6	late Cretaceous	JAM	CFP	9(1-9); 10(1-8)	Green Island, Jamaica, B.W.I.
Brönnimann 1955	Pseudorbitoides	rutteni	Brönnimann	1	%	CUB	CFP	%	central and southern Las Villas Province, Cuba
Brönnimann 1955	Pseudorbitoides	rutteni	Brönnimann	1	late Cretaceous	CUB	CFP	11(1-7)	Las Villas Province, Cuba
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	6	Campanian-Maestrichtian	JAM	CFP	%	Jamaica
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	1	Campanian-Maestrichtian	CUB	CFP	%	Cuba
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	9	Campanian-Maestrichtian	GTM	CFP	%	Guatemala
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	7	Campanian-Maestrichtian	HTI	CFP	%	Haiti
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	10	Campanian-Maestrichtian	VEN	CFP	%	Venezuela
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	68	Campanian-Maestrichtian	MEX	CFP	%	Mexico
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	%	Campanian-Maestrichtian	USA	CFP	%	southern United States
Brönnimann 1955	Pseudorbitoides	sp.	Douvillé	13	Campanian-Maestrichtian	D.W.I.	CFP	%	possibly Bonaire, D.W.I
Brönnimann 1955	Pseudorbitoides	trechmanni	Douvillé	6	%	JAM	CFP	%	Jamaica
Brönnimann 1955	Pseudorbitoides	trechmanni	Douvillé	1	%	CUB	CFP	%	Cuba
Brönnimann 1955	Pseudorbitoides	trechmanni	Douvillé	7	%	HTI	CFP	%	Haiti
Brönnimann 1955	Pseudorbitoides	trechmanni	Douvillé		%	USA	CFP	%	southern United States
~~Brönnimann 1955~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~51~~	~~%~~	~~PNG~~	~~ASP~~	~~%~~	~~New Guinea~~
~~Brönnimann 1955~~	~~Pseudorbitoides~~	~~longispiralis~~	~~Papp & Küpper~~	~~59~~	~~early Maestrichtian~~	~~AUT~~	~~EFP~~	~~%~~	~~Silberegg, Guttaring Klein St. Paul, Kärnten, Austria~~
Brönnimann 1955	Pseudorbitoides	rutteni	Brönnimann	1	%	CUB	CFP	12(1-11)	road from Camajani to Santa Clarita, Las Villas Province
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	4	%	USA	CFP	1(1-5); 2(1,3-5)	Louisiana
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	4	%	USA	CFP	2(2)	Mississippi
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	4	Campanian-?	USA	CFP	%	NE Louisiana
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	4	%	USA	CFP	%	Mississippi
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	4	%	USA	CFP	%	Louisiana
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	5	%	USA	CFP	%	Texas
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	68	%	MEX	CFP	%	Mexico
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	9	%	GTM	CFP	%	Guatemala
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	8	%	HND	CFP	%	British Honduras
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	1	%	CUB	CFP	%	Cuba
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	7	%	HTI	CFP	%	Haiti
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	12	%	USA	CFP	%	Puerto Rico
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	4	late Campanian	USA	CFP	%	Hinds County, Mississippi
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	5	%	USA	CFP	%	Uvalde county, Texas
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	5	%	USA	CFP	%	Zavala county, Texas
Brönnimann 1957	Pseudorbitoides	israelskyi	Vaughan & Cole	5	%	USA	CFP	%	Kinney County, SW Texas
Brönnimann 1958b	Pseudorbitoides(?)	chubbi	Brönnimann	5	Campanian	USA	CFP	1(1-3)	Elm creek, 0.5 mile south of the Southern Pacific Railway, Kinney County, Texas
Brönnimann 1958b	Orbitoides	sp.	%	2	Cretaceous	USA	CFP	%	Glades County, Florida

Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Vaughanina	packstone con fragmentos biógenos	%
Schlanger & Premoli Silva 1981	Page 819	Pseudorbitoides	%	%
Seiglie & Ayala-Castanares 1963	Page 5	Orbitoides	Caliza arenácea, blanco amarillenta, en capas de 10 pulgadas de espesor	%
Seiglie & Ayala-Castanares 1963	Page 5	Omphalocyclus, Orbitoides, Asterorbis, Archaeolithothamnium	Caliza recristalizada, estratificada, blanco amarillenta, con numerosos foraminíferos en color blanco	%
Seiglie & Ayala-Castanares 1963	Page 5	Asterorbis, Gavelinella, Pithonella, Stomiosphaera	Caliza margosa consoidada, algo arenácea	%
Seiglie & Ayala-Castanares 1963	Page 6	Omphalocyclus, Orbitoides, Asterorbis, Vaughanina, Archaeolithothamnium	Caliza densa, dura, aporcelanada, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 6	Orbitoides, Omphalocyclus, Asterorbis, Vaughanina, Archaeolithothamnium	Calizas duras, recristalizadas, blancas, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 7	Orbitoides, Omphalocyclus,	Calizas duras, recristalizadas en parte, color crema rosáceo, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 8	Orbitoides, Lepidorbitoides, Asterorbis, Archaeolithothamnium	Calizas duras, recristalizadas color blanco amarillento	%
Seiglie & Ayala-Castanares 1963	Page 8	Asterorbis, Vaughanina	Marga arcillosa de grano fino a muy fino; dureza media, color gris oscuro	%
Seiglie & Ayala-Castanares 1963	Page 9	%	Margas grises, interestratificadas con calizas margoso-arenáceas; grises, corales, equinodermos	%
Seiglie & Ayala-Castanares 1963	Page 9	%	Margas grises, interestratificadas con calizas margoso-arenáceas; grises, corales, equinodermos	%
Seiglie & Ayala-Castanares 1963	Page 9	%	Margas, lutitas y algunas areniscas, color gris oscuro	%
Seiglie & Ayala-Castanares 1963	Page 9	Smoutina	Marga conglomerática, fosilífera, estratificada, de color gris	%
Seiglie & Ayala-Castanares 1963	Page 9	Smoutina	Marga arenácea, arcillosa, fosilífera, color gris oscuro a negro	%
Seiglie & Ayala-Castanares 1963	Page 9	Sulcorbitoides, Globotruncana, Pseudoguembelina; Globotruncana linneiana, G. stuarti	Caliza beigénica con rudistas, entre capas de basalto	%
Seiglie & Ayala-Castanares 1963	Page 10	Orbitoides, Asterorbis, Vaughanina, Archaeolithothmnium	Caliza arrecifal, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 10	Orbitoides, Vaughanina	Canto de caliza dura, redepositada en un conglomerado del Eoceno o Maastrichtiano	%
Seiglie & Ayala-Castanares 1963	Page 10	Orbitoides, "Historbioides"	Canto en las calciruditas de la formación Penalver, "lime gravel"	%
Seiglie & Ayala-Castanares 1963	Page 11	Sulcorbitoides	Capas finas de caliza, interestratificadas con lutitas.	%
Seiglie & Ayala-Castanares 1963	Page 11	Orbitoides, Asterorbis, Vaughanina	Caliza blanca a blanco-grisácea, masiva, dura	%
Seiglie & Ayala-Castanares 1963	Page 12	Torreina, Pseudorbitoides	Caliza masiva algo detrítica de color blanco rosáceo con macroforaminífero	%
Seiglie & Ayala-Castanares 1963	Page 12	Torreina, Pseudorbitoides	Caliza masiva algo detrítica de color blanco rosáceo con macroforaminífero	%
Seiglie & Ayala-Castanares 1963	Page 12	Torreina, Pseudorbitoides	Caliza masiva algo detrítica de color blanco rosáceo con macroforaminífero	%
Seiglie & Ayala-Castanares 1963	Page 12	Torreina, Pseudorbitoides	Caliza masiva algo detrítica de color blanco rosáceo con macroforaminífero	%
Seiglie & Ayala-Castanares 1963	Page 12	Pseudorbitoides	Caliza masiva, color rosáceo, con numerosos foraminíferos grandes y auperficies estriadas del deslizamiento	%
Seiglie & Ayala-Castanares 1963	Page 12	Orbitoides, Vaughanina	Caliza masiva, color rosáceo, con numerosos foraminíferos	%
Seiglie & Ayala-Castanares 1963	Page 13	Vaughanina, Orbitoides	Caliza blanca, densa, masiva	%
Seiglie & Ayala-Castanares 1963	Page 13	Orbitoides, Miliolidae	Caliza psseudo-oolítica	%
Seiglie & Ayala-Castanares 1963	Page 13	Orbitoides	Caliza detrítica, masiva, con abundantes foraminíferos grandes	%
Seiglie & Ayala-Castanares 1963	Page 13	Monolepidorbis, Orbitoides, Miliolidae	Caliza amarillo-ocre, dura, masiva con abundante fauna da foraminíferos grandes	%
Seiglie & Ayala-Castanares 1963	Page 14	Orbitoides	Caliza dura, masiva, color crema-amarillento a carmelita grisáceo con foraminíferos grandes	%
Seiglie & Ayala-Castanares 1963	Page 14	Omphalocyclus, Asterorbis, Vaughanina, Siderolites	Calcirudita, deleznable, arcillosa, color gris claro	%
Seiglie & Ayala-Castanares 1963	Page 15	Omphalocyclus, Orbitoides, Lepidorbitoides, Pseudorbitoides, Vaughanina	Calcirudita a calcarenita, dura, consolidada, color gris claro	%
Seiglie & Ayala-Castanares 1963	Page 15	%	%	%
Seiglie & Ayala-Castanares 1963	Page 15	%	%	%
Seiglie & Ayala-Castanares 1963	%	%	%	%
Seiglie & Ayala-Castanares 1963	%	%	%	%

Pseudorbitoides

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Ayala-Castanares 1963	Page 61	Orbitoides, Lepidorbitoides, Sulcoperculina	Gravas de color pardo amarillento	nähere Lok-Beschreibung im Text
Ayala-Castanares 1963	Page 62	Orbitoides, Sulcoperculina, Lepidorbitoides	Gravas de color pardo amarillento	%
Brönnimann 1954b	%	Lepidorbitoides, Orbitoides, Sulcoperculina, ?Meandropsina, Vaughanina	%	
Brönnimann 1954b	%	Vaughanina, Orbitoides	%	well; Depth: 2985-3000 feet
Brönnimann 1954b	%	Vaughanina	%	%
Brönnimann 1955	%	rare Sulcoperculina	%	topotype
Brönnimann 1955	%	Sulcoperculina	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
Brönnimann 1955	%	%	%	%
~~Brönnimann 1955~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Brönnimann 1955~~	~~%~~	~~%~~	~~%~~	~~%~~
Brönnimann 1955	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	limestone	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	%
Brönnimann 1957	%	%	%	Baker, Ridgway, et al., McRae well No. 1 in SE 1/4 SW 1/4-NW 1/4 Sec. 24, T. 7 N., R. 1 W.; Depth: 3916 - 3922 ft
Brönnimann 1957	%	%	Anacacho limestone	well
Brönnimann 1957	%	%	Anacacho limestone	well
Brönnimann 1957	%	%	Upson clay	exposure (Bureau of Economic Geology locality 136-T-1)
Brönnimann 1958b	Page 424	Pseudorbitoides israelskyi	%	%
Brönnimann 1958b	Page 429	Sulcoperculina, Orbitoides, Lepidorbitoides, Vaughanina	cream white microcoquinoid calcilutite	well cutting, Coastal Petroleum Company No.1, T 42 s - R33 E - Sec. 25; Depth: below5800 ft

Butterlin 1967	Pseudorbitoides	sp. cf. rutteni	Brönnimann	7	Campanian	HTI	CFP	%		Sentier Dondon-Marmelade, juste à l'Est du premier passage de la rivière de Marmelade; Massif du Nord; République d'Haïti
Butterlin 1981	Pseudorbitoides	rutteni	Brönnimann	68	Campanian-early Maastrichtian	MEX	CFP	33(1-4)		Mexico, Caribe
Butterlin 1981	Pseudorbitoides(?)	chubbi	Brönnimann	68	Campanian	MEX	CFP	33(5,6)		Mexico, Caribe
Butterlin 1981	Pseudorbitoides	curacaoensis	Krijnen	68	late Campanian-early Maastrichtian	MEX	CFP	33(7-9)		Mexico, Caribe
Butterlin 1981	Pseudorbitoides	trechmanni trechmanni	Douvillé	68	Campanian-Maastrichtian	MEX	CFP	34(1,3,6)		Mexico, Caribe
Butterlin 1981	Pseudorbitoides	trechmanni pectinata	Krijnen	68	Campanian-Maastrichtian	MEX	CFP	34(2,4,5)		Mexico, Caribe
Butterlin 1981	Pseudorbitoides	israelskyi	Vaughan & Cole	68	Campanian	MEX	CFP	34(7,8)		Mexico, Caribe
Butterlin 1992	Pseudorbitoides	israelskyi	Vaughan & Cole	49	late Campanian	KIR	CFP	1(10)		voisinage des îles Line (Leg 33-Loc.316-27.3-65(19 A)) [Kiribati]
Butterlin 1992	Pseudorbitoides	israelskyi	Vaughan & Cole	49	late Campanian	KIR	CFP	1(11)		voisinage des îles Line (Leg 33-Loc.316-27.3-65/69(15)) [Kiribati]
Butterlin 1992	Pseudorbitoides	cf. israelskyi	%	49	middle Maastrichtian	KIR	CFP	%		échantillon 315-9cc
Butterlin 1992	Pseudorbitoides	israelskyi	%	50	late Campanian	NRU	CFP	%		fosse de Nauru (Leg 61-Site 462; sections 52.1 et 51.3)
Butterlin 1992	Pseudorbitoides	sp.	%	50	middle Maastrichtian	NRU	CFP	%		fosse de Nauru (Leg 61-Site 462; sections 48.1 et 48.2)
~~Butterlin 1992~~	~~Pseudorbitoides~~	~~israelskyi~~	~~%~~	~~51~~	~~Campanian~~	~~PNG~~	~~ASP~~	~~%~~		~~Nouvelle Guinée~~
Butterlin 1992	Pseudorbitoides	sp.	%	67	Campanien-Maastrichtien	USA	CFP	%		au sud d'Hawaii (Leg 17, Site 165 A)
Butterlin 1992	Pseudorbitoides	sp.	%	67	middle Maastrichtian	USA	CFP	%		au sud d'Hawaii (Leg 17, Site 165 A)
~~Butterlin 1992~~	~~Pseudorbitoides~~	~~yini~~	~~Liu~~	~~48~~	~~%~~	~~CHN~~	~~ASP~~	~~%~~		~~Tibet~~
~~Butterlin 1992~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~59~~	~~%~~	~~AUT~~	~~EFP~~	~~%~~		~~Autriche~~
Caudri 1944	Pseudorbitoides	israelskyi	Vaughan & Cole	1	Maestrichtian	CUB	CFP	%		Cuba
Caudri 1944	Pseudorbitoides	trechmanni	Douvillé	1	Maestrichtian	CUB	CFP	%		Cuba
Dilley 1973	Pseudorbitoides	sp.	Douvillé	%	Campanian-Maastrichtian	%	CFP	%		Northern America, Central America
Frizzell 1954	Pseudorbitoides	israelskyi	Vaughan & Cole	5	Gulf, late Cretaceous	USA	CFP	%		Texas
Frizzell 1954	Pseudorbitoides	israelskyi	Vaughan & Cole	5	Gulf, late Cretaceous	USA	CFP	%		Texas
Hanzawa 1962	Pseudorbitoides	sp.	Douvillé	%	Campanian to Maastrichtian	%	%	%	%	
Hanzawa 1962	Pseudorbitoides	israelskii	Vaughan & Cole	%	Campanian	%	%	1(26,27)	%	
Hanzawa 1962	Pseudorbitoides	rutteni	Brönnimann	%	late Campanian or Maestrichtian	%	%	%	%	
~~Hashimoto 1982~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~65~~	~~late Cretaceous~~	~~PHL~~	~~ASP~~	~~%~~		~~Pinugay, Tanay, Rizal~~
~~Hashimoto et al. 1978a~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~65~~	~~?Cretaceous-Paleocene?~~	~~PHL~~	~~ASP~~	~~%~~		~~Pinugay Hill, Tanay, Rizal, Central Luzon~~
~~Hashimoto et al. 1978a~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~65~~	~~Cretaceous~~	~~PHL~~	~~ASP~~	~~8(9)~~		~~Pinugay Hill, Tanay, Rizal, Central Luzon~~
~~Hashimoto et al. 1978a~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~65~~	~~Paleocene~~	~~PHL~~	~~ASP~~	~~9(14,15)~~		~~Pinugay Hill, Tanay, Rizal, Central Luzon~~
~~Hashimoto & Matsumaru 1981~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~65~~	~~Cretaceous~~	~~PHL~~	~~ASP~~	~~%~~		~~Pinugay Hill, Tanay, Rizal~~
Krijnen 1967	Pseudorbitoides	curacaoensis	nov. Sp.	13	late Campanian-early Maastrichtian	DWI	CFP	1(1-3); 2(1-6); 3(1-4); 4(17,27); 5(1)		1500 m ESE of the country-house San Juan, Curacao; Netherlands Antilles; Lat: 12°15', Long: 69°05'06"
Krijnen 1972	Pseudorbitoides	curacaoensis	Krijnen	13	late Campanian-early Maastrichtian	DWI	CFP	1(1-9)		near St. Jan (Cas Abao), Curacao
Krijnen 1972	Pseudorbitoides	cf. P. (?) chubbi	Brönnimann	6	Campanian	JAM	CFP	2(1-7); 3(1-6); 4(1-6)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni trechmanni	Douvillé	6	Campanian	JAM	CFP	5(1-18); 6(1-6); 7(1-6); 8(1-6); 9(1-6)		near Green Island, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni pectinata	subsp. nov.	6	Campanian	JAM	CFP	10(1-11); 11(1-6); 12(1-6); 13(1-5)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni trechmanni	Douvillé	6	Campanian	JAM	CFP	14(1-11); 15(1-15); 19(1-10)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni trechmanni	Douvillé	6	Campanian	JAM	CFP	16(1-5); 17(1-5)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni trechmanni	Douvillé	6	Campanian	JAM	CFP	18(1-6)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni trechmanni	Douvillé	6	Campanian	JAM	CFP	20(1-6)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni pectinata	subsp. nov.	6	Campanian	JAM	CFP	21(1-6); 22(1-6); 23(1-6)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni pectinata	subsp. nov.	6	Campanian	JAM	CFP	24(1-6); 26(1-5)		Sunderland Inlier, Jamaica
Krijnen 1972	Pseudorbitoides	trechmanni pectinata	subsp. nov.	6	Campanian	JAM	CFP	25(1-6)		Sunderland Inlier, Jamaica
Loeblich & Tappan 1988	Pseudorbitoides	sp.	Brönnimann	6	Campanian-Maastrichtian	JAM	CFP	%		Jamaica
Loeblich & Tappan 1988	Pseudorbitoides	sp.	Brönnimann	1	Campanian-Maastrichtian	CUB	CFP	%		Cuba
Loeblich & Tappan 1988	Pseudorbitoides	sp.	Brönnimann	7	Campanian-Maastrichtian	HTI	CFP	%		Haiti
Loeblich & Tappan 1988	Pseudorbitoides	sp.	Brönnimann	5	Campanian-Maastrichtian	USA	CFP	%		Texas
Loeblich & Tappan 1988	Pseudorbitoides	sp.	Brönnimann	4	Campanian-Maastrichtian	USA	CFP	%		Louisiana
Loeblich & Tappan 1988	Pseudorbitoides	trechmanni	Douvillé	6	late Cretaceous	JAM	CFP	746(1-10)		Green Island, Jamaica
~~McGowran 1968~~	~~Pseudorbitoides~~	~~sp.~~	~~%~~	~~51~~	~~Campanian~~	~~PNG~~	~~ASP~~	~~%~~		~~Port Moresby District, Western Pacific~~
~~Papp 1954~~	~~Pseudorbitoides~~	~~longispiralis~~	~~Papp & Küpper~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~1(1)~~		~~Silberegg SW of Guttaring, Kärnten~~
~~Papp 1954~~	~~Pseudorbitoides~~	~~cf. trechmanni~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~1(2)~~		~~Steinbruch Wietersdorfer Zementfabrik, Pemberger Riegel, oberhalb Bergstation~~
~~Papp 1955a~~	~~Pseudorbitoides~~	~~longispiralis~~	~~Papp & Küpper~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~Abb. 1, fig 1~~		~~Silberegg~~
~~Papp 1955a~~	~~Pseudorbitoides~~	~~cf. trechmanni~~	~~Douvillé~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~Abb. 1, fig 2~~		~~Pembergerriegel (Steinbruch)~~
~~Papp 1955b~~	~~Pseudorbitoides~~	~~longispiralis~~	~~%~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~%~~		~~S Guttaring Silberegg~~
~~Papp 1955b~~	~~Pseudorbitoides~~	~~trechmanni~~	~~%~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~%~~		~~Pembergerriegel Steinbruch WWietersdorf (II)~~
~~Papp & Küpper 1963b~~	~~Pseudorbitoides~~	~~longispiralis~~	~~n. sp.~~	~~59~~	~~Campanian~~	~~AUT~~	~~EFP~~	~~2(3)~~		~~Silberegg Steinbruch~~
Pécheux 1984	Pseudorbitoides	israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	7(26,27)		Tuxtla Guttierez
Pécheux 1984	Pseudorbitoides	israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	%		Tuxtla Guttierez
Pécheux 1984	Pseudorbitoides	sp. cf. israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	%		Tuxtla Guttierez
Pécheux 1984	Pseudorbitoides	sp. cf. israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	%		Tuxtla Guttierez
Pécheux 1984	Pseudorbitoides	israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	7(21,22)		P3, La Trinitaria
Pécheux 1984	Pseudorbitoides	israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	%		P3, La Trinitaria
Pécheux 1984	Pseudorbitoides	israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	%		P3, La Trinitaria
Pécheux 1984	Pseudorbitoides	israelskyi	%	3	Campanien-Maastrichtien	MEX	CFP	7(28)		P3, La Trinitaria
Pécheux 1984	Pseudorbitoides	israelskyi morphotype kozanyi	%	3	Campanien-Maastrichtien	MEX	CFP	7(31-33)		Tuxtla Guttierez
Pécheux 1984	Pseudorbitoides	israelskyi morphotype hedbergi	%	3	Campanien-Maastrichtien	MEX	CFP	7(29,30)		P3, La Trinitaria
Pécheux 1984	Pseudorbitoides	israelskyi morphotype hedbergi	%	3	Campanien-Maastrichtien	MEX	CFP	%		P3, La Trinitaria
Pécheux 1984	Pseudorbitoides	israelskyi	%	3	%	MEX	CFP	7(25)		
Pessagno 1962	Pseudorbitoides	israelskyi	Vaughan & Cole	12	early Maastrichtian	USA	CFP	%		between Ponce and Adjuntas, south-central Puerto Rico
Pessagno 1962	Pseudorbitoides	israelskyi	Vaughan & Cole	12	early Maastrichtian	USA	CFP	%		between Ponce and Adjuntas, south-central Puerto Rico
Pessagno 1962	Pseudorbitoides	israelskyi	Vaughan & Cole	12	Middle-late Maastrichtian	USA	CFP	%		west of Penuelas, south-central Puerto Rico
Pessagno 1962	Pseudorbitoides	israelskyi	Vaughan & Cole	12	Campanian	USA	CFP	%		south-central Puerto Rico
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	50	late Campanian	NRU	CFP	4(1)		Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	israelskyi	Vaughan & Cole	50	late Campanian	NRU	CFP	4(3); 5(5); 7(3)		Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp. aff. P. israelskyi	Vaughan & Cole	50	late Campanian	NRU	CFP	5(4)		Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	50	middle Maastrichtian	NRU	CFP	10(5)		Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	50	late Campanian	NRU	CFP	10(8)		Site 462, Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	50	Maastrichtian	NRU	CFP	%		Hole 462, Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	50	Campanian	NRU	CFP	%		Hole 462; Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	50	Maastrichtian	NRU	CFP	%		Hole 462A; Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	50	Campanian	NRU	CFP	%		Hole 462A; Nauru Basin
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	49	Maastrichtian	KIR	CFP	%		Hole 165A; Line Islands
Premoli Silva & Brusa 1981	Pseudorbitoides(?)	sp.	%	49	Maastrichtian	KIR	CFP	%		Hole 165A; Line Islands
Premoli Silva & Brusa 1981	Pseudorbitoides	sp.	%	49	Campanian	KIR	CFP	%		Hole 316; Line Islands
Renz 1955	Pseudorbitoides	israelskii	Vaughan & Cole	10	Maestrichtian	VEN	CFP	4(3,5)		Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Pseudorbitoides	israelskii	Vaughan & Cole	10	Maestrichtian	VEN	CFP	4(4)		2.55 km S 37°E of the San Juan monument at San Juan de Los Morros, in the headwaters of Quebrada Aguada
Renz 1955	Pseudorbitoides?	sp.	%	10	Maestrichtian	VEN	CFP	4(6-7)		Paso Copey, west of San Sebastián, State of Aragua
Renz 1955	Pseudorbitoides?	sp.	%	10	Maestrichtian	VEN	CFP	4(8)		Paso Copey, west of San Sebastián, State of Aragua
Rosales Dominguez et al. 1994	Pseudorbitoides	sp.	%	3	late Campanian-Maastrichtian	MEX	CFP	%		Río Suchiapa, SE de Tuxtla Gutiérrez
Schlanger & Premoli Silva 1981	Pseudorbitoides	sp.	%	49	Campanian-Maastrichtian	KIR	CFP	%		W Kingman Reef, northern Line Islands
Schlanger & Premoli Silva 1981	Pseudorbitoides	sp.	%	49	Campanian-Maastrichtian	KIR	CFP	%		Line Islands
Schlanger & Premoli Silva 1981	Pseudorbitoides	sp.	%	50	Campanian	NRU	CFP	%		Nauru Basin
Seiglie & Ayala-Castañares 1963	Pseudorbitoides	rutteni	Brönnimann	1	early Maestrichtian	CUB	CFP	12(2)		Camino Chirino a Portocarrero, 400 m al N de la tienda La Molina
Seiglie & Ayala-Castañares 1963	Pseudorbitoides	rutteni	Brönnimann	1	early Maestrichtian	CUB	CFP	%		Camino del Mulato a la finca Carlota, Prov. Las Villas

Butterlin 1967	%	Sulcoperculina	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1992	ODP (DSDP)	%	%	zone à *Globotruncana calcarata*
Butterlin 1992	ODP (DSDP)	%	%	zone à *Globotruncana calcarata*
Butterlin 1992	ODP (DSDP)	Asterorbis, Sulcoperculina	%	zone à *Globotruncana gansseri*
Butterlin 1992	ODP (DSDP)	Vaughanina, Sulcoperculina	%	zone à *Globotruncana subspinosa* (52.1), et *G. calcarata* (51.3)
Butterlin 1992	ODP (DSDP)	Lepidorbitoides, Orbitocyclina, Asterorbis, Sulcoperculina, Vaughanina	%	zone à *Globotruncana gansseri*
~~Butterlin 1992~~	~~%~~	~~%~~	~~%~~	~~%~~
Butterlin 1992	DSDP	Lepidorbitoides, Sulcoperculina	%	%
Butterlin 1992	DSDP	Vaughanina, Sulcoperculina	%	Maastrichtien supérieur (Douglas, 1973)
~~Butterlin 1992~~	~~%~~	~~%~~	~~%~~	~~probablement synonyme de *P. israelsky*~~
~~Butterlin 1992~~	~~%~~	~~%~~	~~%~~	~~Papp selbst hat dies angezweifelt~~
Caudri 1944	%	Orbitoides, Lepidorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina	%	%
Caudri 1944	%	Orbitoides, Lepidorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina	%	%
Dilley 1973	Table 2	%	%	%
Frizzell 1954	%	%	%	keine näheren Angaben zur Lokalität
Frizzell 1954	%	%	%	keine näheren Angaben zur Lokalität
Hanzawa 1962	%	%	%	Type species: Pseudorbitoides trechmanni
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
~~Hashimoto 1982~~	~~%~~	~~Omphalocyclus~~	~~sandstone conglomerate~~	~~%~~
~~Hashimoto et al. 1978a~~	~~Txt-fig. 1-3~~	~~Lepidorbitoides, Omphalocyclus, Siderolites, Orbitoides~~	~~sharpstone bearing conglomeratic sst.~~	~~%~~
~~Hashimoto et al. 1978a~~	~~Txt-fig. 1-3~~	~~%~~	~~dark grey, banded limestone~~	~~Globotruncana lapparenti, G. sp.~~
~~Hashimoto et al. 1978a~~	~~Txt-fig. 1-3~~	~~%~~	~~blocky lst., bedding plane uncertain~~	~~Globotruncana lapparenti, G. sp.~~
~~Hashimoto & Matsumaru 1981~~	~~%~~	~~%~~	~~%~~	~~%~~
Krijnen 1967	Fig. 1	%	hard calcarenite, organoclastic, with conglomeratic layers near the base	%
Krijnen 1972	Page 9	Sulcoperculina	calcarenitic limestone lenses	%
Krijnen 1972	Page 7	Sulcoperculina	%	%
Krijnen 1972	Page 6	Sulcoperculina	%	%
Krijnen 1972	Page 7	Sulcoperculina	%	%
Krijnen 1972	Page 7	Sulcoperculina	%	%
Krijnen 1972	Page 7	Sulcoperculina	%	%
Krijnen 1972	Page 7	Sulcoperculina	%	%
Krijnen 1972	Page 7	Sulcoperculina	%	%
Krijnen 1972	Page 7	Sulcoperculina	%	%
Krijnen 1972	Page 8	%	%	%
Krijnen 1972	Page 8	Sulcoperculina	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
~~McGowran 1968~~	~~%~~	~~Orbitoides~~	~~%~~	~~%~~
~~Papp 1954~~	~~%~~	~~Siderolites, Orbitoides~~	~~%~~	~~%~~
~~Papp 1954~~	~~%~~	~~Orbitoides, Siderolites~~	~~%~~	~~%~~
~~Papp 1955a~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Papp 1955a~~	~~%~~	~~%~~	~~%~~	~~%~~
~~Papp 1955b~~	~~Abb. 1~~	~~Orbitoides (tissoti, media), Siderolites vidali~~	~~Sandstein und Mergel~~	~~%~~
~~Papp 1955b~~	~~Abb. 2~~	~~Lepidorbitoides minima, Orbitoides (tissoti, media), Siderolites vidali~~	~~Sandstein und Mergel~~	~~%~~
~~Papp & Küpper 1953b~~	~~%~~	~~%~~	~~%~~	~~holotypus~~
Pécheux 1984	%	Orbitoides, Orbitocyclina, Asterorbis, Sulcoperculina	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Asterorbis, Sulcoperculina	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Asterorbis, Sulcoperculina	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Sulcoperculina, ?Kathina	calcaires gréseux	%
Pécheux 1984	%	Sulcoperculina, Torreina, Pithonella	calcaires blancs	%
Pécheux 1984	%	Torreina, Sulcoperculina, Globotruncana, Heterohelix, Pithonella	calcaires fins, de couleur blanche à café au lait, parfois légèrement marneux	%
Pécheux 1984	%	Torreina, Sulcoperculina, Globotruncana, Heterohelix, Pithonella	calcaires fins, de couleur blanche à café au lait, parfois légèrement marneux	%
Pécheux 1984	%	Torreina, Sulcoperculina, Globotruncana, Heterohelix, Pithonella	calcaires fins, de couleur blanche à café au lait, parfois légèrement marneux	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Sulcoperculina, ?Kathina	calcaires gréseux	%
Pécheux 1984	%	Torreina, Sulcoperculina, Globotruncana, Heterohelix, Pithonella	calcaires fins, de couleur blanche à café au lait, parfois légèrement marneux	%
Pécheux 1984	%	Torreina, Sulcoperculina, Globotruncana, Heterohelix, Pithonella	calcaires fins, de couleur blanche à café au lait, parfois légèrement marneux	%
Pécheux 1984	%	%	%	%
Pessagno 1962	Txt-fig. 1	Miliolids, Sulcoperculina, Vaughanina	massive limestone	Globotruncana fornicata-lapparenti-stuarti assemblage zone; thin section
Pessagno 1962	Txt-fig. 1	Miliolids, Sulcoperculina	massive limestone	thin section
Pessagno 1962	Txt-fig. 3	%	%	%
Pessagno 1962	%	%	limestone	%
Premoli Silva & Brusa 1981	Fig. 5	%		Core 51-3; Depth: 44-47 cm
Premoli Silva & Brusa 1981	Fig. 5	%		Core 52-1; Depth: 98-101 cm
Premoli Silva & Brusa 1981	Fig. 5	%		Core 51-3; Depth: 44-47 cm
Premoli Silva & Brusa 1981	Fig. 5	%		Core 48 soup
Premoli Silva & Brusa 1981	Fig. 5	%		Core 52-1; Depth: 98-101 cm
Premoli Silva & Brusa 1981	Fig. 5	Globorotalia gansseri		Core 48: Pseudorbitoides assemblage
Premoli Silva & Brusa 1981	Fig. 5	Vaughanina, Globorotalia calcarata		Core 51/52: Pseudorbitoides-Vaughanina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Globorotalia gansseri		Core 7: Pseudorbitoides assemblage
Premoli Silva & Brusa 1981	Fig. 5	Vaughanina, Globorotalia calcarata		Core 21: Pseudorbitoides-Vaughanina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Vaughanina, Globorotalia gansseri		Core 16: Pseudorbitoides-Vaughanina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Globorotalia gansseri		Core 17: Pseudorbitoides? Assemblage
Premoli Silva & Brusa 1981	Fig. 5	Globorotalia calcarata		Core 27
Renz 1955	Page 67	%		%
Renz 1955	Page 67	%		%
Renz 1955	Page 67	%		%
Renz 1955	Page 67	%		%
Rosales Dominguez et al. 1994	Page 30	Sulcoperculina, Asterorbis, Aktinorbitoides, Vaughanina	packstone con fragmentos biógenos	%
Schlanger & Premoli Silva 1981	Fig. 2	%	within vulcaniclastic strata	%
Schlanger & Premoli Silva 1981	Fig. 2	Sulcoperculina	reefs	%
Schlanger & Premoli Silva 1981	Fig. 2	Vaughanina; Globotruncana subspinosa, G. calcarata	deep-water and sill volcanism	%
Seiglie & Ayala-Castanares 1963	Page 10	%	Toba lítica de grano mediano	Zona de Orbitoides media-Pseudorbitoides rutteni
Seiglie & Ayala-Castanares 1963	Page 10	%	Caliza dura, masiva, algo detrítica	Zona de Orbitoides media-Pseudorbitoides rutteni

Seiglie & Ayala-Castanares 1963	Pseudorbitoides	rutteni	Brönnimann	1	early Maestrichtian	CUB	CFP	11(1); 12(1,3); 13(2)		Lado SW de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	rutteni	Brönnimann	1	early Maestrichtian	CUB	CFP	%		Lado SW de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	rutteni	Brönnimann	1	early Maestrichtian	CUB	CFP	10(2-3); 11(1); 13(1)		Lado N de la loma La Pena, al N de Arroyo Blanco, Jatibonico, Prov. De Camagüey
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	rutteni	Brönnimann	1	early Maestrichtian	CUB	CFP	%		Foblado de Quemadito, en el camino de Fomento a Sta. Lucía, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	rutteni	Brönnimann	1	early Maestrichtian	CUB	CFP	%		Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	israelskyi	Vaughan & Cole	4	Campanian	USA	CFP	%		Louisiana
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	israelskyi	Vaughan & Cole	68	Campanian	MEX	CFP	%		México
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	israelskyi	Vaughan & Cole	10	Campanian	VEN	CFP	%		Venezuela
~~Seiglie & Ayala-Castanares 1963~~	~~Pseudorbitoides~~	~~israelskyi~~	~~Vaughan & Cole~~	~~51~~	~~Campanian~~	~~PNG~~	~~ASP~~	~~%~~		~~Nueva Guinea~~
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	israelskyi	Vaughan & Cole	7	Campanian	HTI	CFP	%		Haití
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	israelskyi	Vaughan & Cole	8	Campanian	HND	CFP	%		Honduras Británica
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	israelskyi	Vaughan & Cole	12	Campanian	USA	CFP	%		Fuerto Rico
Seiglie & Ayala-Castanares 1963	Pseudorbitoides	israelskyi	Vaughan & Cole	1	Campanian	CUB	CFP	%		Cuba
Vaughan & Cole 1943	Pseudorbitoides	israelskii	Vaughan & Cole	4	late Cretaceous	USA	CFP	17(1-2)		Franklin Parish, Louisiana
Vaughan & Cole 1943	Pseudorbitoides	trechmanni	Douvillé	6	late Cretaceous	JAM	CFP	17(5-6)		Green Island, Jamaica

Vaughanina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Ayala-Castanares 1963	Vaughanina	cubensis	Palmer	1	late Maastrichtian, evtl. teilweise early	CUB	CFP	%	between Ocozocuautla and Ocuilapa, ca. 100 m adelante de la Cruz del Alto de Ocuilapa; afloramiento en el piso del camino
Ayala-Castanares 1963	Vaughanina	cubensis	Palmer	1	late Maastrichtian, evtl. teilweise early	CUB	CFP	%	afloramiento en el piso del mismo camino, ca. 150 m adelante de la localidad 102 Chis.
Ayala-Castanares 1963	Vaughanina	cubensis	Palmer	1	late Maastrichtian, evtl. teilweise early	CUB	CFP	%	afloramiento sobre el piso, ca. 150 m adelante de la localidad Av-57-57
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	17(6)	W. of Central San Antonio, railroad to Central Hershey, Habana Province, Cuba
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	Maestrichtian	CUB	CFP	%	Cuba
Brönnimann 1954b	Vaughanina	cubensis	Palmer	2	late Cretaceous	USA	CFP	%	Florida
Brönnimann 1954b	Vaughanina	cubensis	Palmer	10	late Cretaceous	VEN	CFP	%	Venezuela
Brönnimann 1954b	Vaughanina	cubensis	Palmer	9	late Cretaceous	GTM	CFP	%	southern Petén, Guatemala
Brönnimann 1954b	Vaughanina	cubensis	Palmer	14	late Cretaceous	MEX	CFP	%	Veracruz, Mexico
Brönnimann 1954b	Vaughanina	cubensis	Palmer	13	late Cretaceous	D.W.I.	CFP	%	Bonaire, D.W.I
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	%	Santa Clara (Las Villas) Province and Camagücy Province, Cuba
Brönnimann 1954b	Vaughanina	sp.	%	%	Maestrichtian	%	%	%	%
Brönnimann 1954b	Vaughanina	sp.	%	1	Maestrichtian	CUB	CFP	%	southern Santa Clara
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	Maestrichtian	CUB	CFP	%	Camagüey Province
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	%	rear Habana
Brönnimann 1954b	Vaughanina	cubensis	Palmer	2	late Cretaceous	USA	CFP	%	Florida
~~Brönnimann 1954b~~	~~Vaughanina~~	~~sp~~	~~%~~	~~2~~	~~early Cretaceous~~	~~USA~~	~~CFP~~	~~%~~	~~Florida~~
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	Senonian to Danian-Montian	CUB	CFP	%	Oriente Province.
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	Cretaceous	CUB	CFP	%	Central San Antonio, Habana Province
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	Cretaceous	CUB	CFP	%	Central San Antonio, Habana Province
~~Brönnimann 1954b~~	~~Vaughanina~~	~~cubensis~~	~~Palmer~~	~~1~~	~~Paleocene~~	~~CUB~~	~~CFP~~	~~16(4,6-9); 18(4,7,9-10)~~	~~Central San Antonio, Habana Province~~
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	Maestrichtian	CUB	CFP	%	Finar del Rio Province
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	middle-late Maestrichtian	CUB	CFP	16(1-3,5,10);17(1-5); 18(8)	City of Habana
Brönnimann 1954b	Vaughanina	barkeri	Brönnimann	14	late Cretaceous	MEX	CFP	18(1-3)	Chalchijapa River, Isthmus of Tehuantepec, State of Veracruz, Mexico
Brönnimann 1954b	Vaughanina	cubensis	Palmer	1	%	CUB	CFP	16(11)	Las Villas Province
Brönnimann 1957	Vaughanina	cubensis	%	2	late Maastrichtian	USA	CFP	%	Nassau County, Florida
Brönnimann 1958a	Vaughanina	cf. barkeri	Brönnimann	1	late Campanian or early Maastrichtian	CUB	CFP	%	central Camagüey Province, 4 km NE of Majagua
Brönnimann 1958b	Vaughanina	jordanae	Brönnimann	2	late Cretaceous	USA	CFP	1(4-7)	Glades County, Florida
Brönnimann 1958b	Vaughanina	guatemalensis	Brönnimann	9	Maestrichtian	GTM	CFP	1(8)	Cobán area, Guatemala
Butterlin 1967	Vaughanina	cubensis	Palmer	14	middle or late Maastrichtian	MEX	CFP	%	Forage Mulato No.1. Municipio de Loma Bonita (Etat d'Oaxaca, près de la frontière avec l'Etat de Vera Cruz)
Butterlin 1967	Vaughanina	barkeri	Brönnimann	14	late Campanian or early Maastrichtian	MEX	CFP	%	Sierra de Guzmantla. Section V. région de Atoyac (Etat de Vera Cruz)
Butterlin 1981	Vaughanina	jordanae	Brönnimann	68	Maastrichtian	MEX	CFP	30(4,5)	Mexico, Caribe
Butterlin 1981	Vaughanina	cubensis	Palmer	68	late Campanian-Maastrichtian	MEX	CFP	30(6,7)	Mexico, Caribe
Butterlin 1981	Vaughanina	barkeri	Brönnimann	68	late Campanian-early Maastrichtian	MEX	CFP	30(8,9)	Mexico, Caribe
Butterlin 1981	Vaughanina	guatemalensis	Brönnimann	68	late Campanian-early Maastrichtian	MEX	CFP	30(10)	Mexico, Caribe
Butterlin 1992	Vaughanina	cf. barkeri	Brönnimann	50	late Campanian	NRU	CFP	1(8)	(..eg 61-Site 462-51.3-44/47(7))
Butterlin 1992	Vaughanina	cf. barkeri	Brönnimann	50	late Campanian	NRU	CFP	1(9)	(..eg 61-Site 462-51.3-44/47(8))
Butterlin 1992	Vaughanina	cubensis	%	50	late Campanian	NRU	CFP	%	fosse de Nauru (Leg 61, Site 462, sections 52.1 et 51.3)
Butterlin 1992	Vaughanina	sp.	%	50	middle Maastrichtian	NRU	CFP	%	fosse de Nauru (Leg 61, Site 462, sections 48.1 et 48.2)
Butterlin 1992	Vaughanina	sp.	%	67	middle Maastrichtian	USA	CFP	%	au sud d'Hawaii (Leg 17, Site 165.A)
Caudri 1944	Vaughanina	cubensis	Palmer	1	Maastrichtian	CUB	CFP	%	Cuba
Caus et al. 2002	Vaughanina	cf. cubensis	Palmer	52	middle-late Campanian	MEX	CFP	%	Cárdenas Basin; San Luis Potosí, NE Mexico
Dilley 1973	Vaughanina	sp.	Palmer	%	Maastrichtian	%	CFP	%	Northern America, Central America
Ellis & Messina 1967	Vaughanina	barkeri	Brönnimann	14	Maastrichtian	MEX	CFP	(1-4)	Veracruz, Mexico
Ellis & Messina 1967	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	(1-5)	Havana Prov., Cuba
Ellis & Messina 1967	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	(6-10)	Havana, Cuba
Ellis & Messina 1967	Vaughanina	cubensis	Palmer	2	late Cretaceous	USA	CFP	(23-24)	Nassau County, Florida
Ellis & Messina 1967	Vaughanina	cubensis	Palmer	13	late Cretaceous; Danian-Montian (Paleocene)	D.W.I.	CFP	(25)	Bonaire
Ellis & Messina 1967	Vaughanina	cubensis	Palmer	1	late Cretaceous; Danian-Montian (Paleocene)	CUB	CFP	(25)	Cuba
Ellis & Messina 1967	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	(26-29)	Cuba
Ellis & Messina 1967	Vaughanina	cubensis	Palmer	10	Maastrichtian	VEN	CFP	(30-33)	San Sebastian, Venezuela
Ellis & Messina 1967	Vaughanina	guatemalensis	Brönnimann	9	Maastrichtian	GTM	CFP	(1-7)	Alta Verapaz Prov., Guatemala
Ellis & Messina 1967	Vaughanina	jordanae	Brönnimann	2	Maastrichtian	USA	CFP	(1-16)	Glades County, Florida
Hanzawa 1962	Vaughanina	cubensis	Palmer	%	%	%	CFP	3(43-45)	Caribbean-Gulf of Mexico region
Hanzawa 1962	Vaughanina	cubensis	Palmer	%	%	%	CFP	7(5)	Caribbean-Gulf of Mexico region
Hanzawa 1962	Vaughanina	barkeri	Brönnimann	%	%	%	CFP	7(6)	Caribbean-Gulf of Mexico region
Hanzawa 1962	Vaughanina	sp.	Palmer	%	%	%	CFP	%	Caribbean-Gulf of Mexico region
Hanzawa 1962	Vaughanina	barkeri	Brönnimann	%	late Cretaceous	%	CFP	7(6)	Caribbean-Gulf of Mexico region
Loeblich & Tappan 1988	Vaughanina	sp.	Palmer	1	late Campanian-Maastrichtian	CUB	CFP	%	Cuba
Loeblich & Tappan 1988	Vaughanina	sp.	Palmer	2	late Campanian-Maastrichtian	USA	CFP	%	Florida
Loeblich & Tappan 1988	Vaughanina	sp.	Palmer	68	late Campanian-Maastrichtian	MEX	CFP	%	Mexico
Loeblich & Tappan 1988	Vaughanina	sp.	Palmer	9	late Campanian-Maastrichtian	GTM	CFP	%	Guatemala
Loeblich & Tappan 1988	Vaughanina	sp.	Palmer	10	late Campanian-Maastrichtian	VEN	CFP	%	Venezuela
Loeblich & Tappan 1988	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	749(1,3-6,8)	Habana Prov., Cuba
Loeblich & Tappan 1988	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	749(2,7)	Matanzas Prov., Cuba
Krijnen 1972	Vaughanina	cubensis	Palmer	1	%	CUB	CFP	27(1-3)	Bermudez Station 239; one km west of Central San Antonio, Madruga, Prov. Matanzas (= R.H.Palmer 1214), Cuba
Palmer 1934	Vaughanina	cubensis	n. sp.	1	late Cretaceous	CUB	CFP	12(5); 13(2,4)	1 km W of Central San Antonio, railroad to Central Hershey, Havana Province
Pécheux 1984	Vaughanina	cubensis	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Vaughanina	cubensis	%	3	Campanian-Maastrichtian	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Vaughanina	cubensis	%	%	%	MEX	CFP	7(23)	%

Seiglie & Ayala-Castanares 1963	Page 12	Torreina, Sulcoperculina	Caliza masiva algo detrítica de color blanco rosáceo con macroforaminíferos	Zona de Orbitoides media-Pseudorbitoides rutteni
Seiglie & Ayala-Castanares 1963	Page 12	Torreina, Sulcoperculina	Caliza masiva algo detrítica de color blanco rosáceo con macroforaminíferos	Zona de Orbitoides media-Pseudorbitoides rutteni
Seiglie & Ayala-Castanares 1963	Page 12	Sulcoperculina	Caliza masiva, color rosáceo, con numerosos foraminíferos grandes y superficies estriadas del deslizamiento	Zona de Orbitoides media-Pseudorbitoides rutteni
Seiglie & Ayala-Castanares 1963	Page 14	Orbitoides, Ayalaina	Conglomerado calcáreo gris, con abundantes foraminíferos grandes	Zona de Orbitoides media-Pseudorbitoides rutteni
Seiglie & Ayala-Castanares 1963	Page 15	Omphalocyclus, Orbitoides, Lepidorbitoides, Vaughanina, Sulcoperculina, Rhapydionina	Calcirudita a calcarenita, dura, consolidada, color gris claro	Zona de Orbitoides media-Pseudorbitoides rutteni
Seiglie & Ayala-Castanares 1963	%	%	%	Zona de Orbitoides tissoti-Sulcorbitoides pardoi
Seiglie & Ayala-Castanares 1963	%	%	%	Zona de Orbitoides tissoti-Sulcorbitoides pardoi
Seiglie & Ayala-Castanares 1963	%	%	%	Zona de Orbitoides tissoti-Sulcorbitoides pardoi
~~Seiglie & Ayala-Castanares 1963~~	~~%~~	~~%~~	~~%~~	~~Zona de Orbitoides tissoti-Sulcorbitoides pardoi~~
Seiglie & Ayala-Castanares 1963	%	%	%	Zona de Orbitoides tissoti-Sulcorbitoides pardoi
Seiglie & Ayala-Castanares 1963	%	%	%	Zona de Orbitoides tissoti-Sulcorbitoides pardoi
Seiglie & Ayala-Castanares 1963	%	%	%	Zona de Orbitoides tissoti-Sulcorbitoides pardoi
Seiglie & Ayala-Castanares 1963	%	%	%	Zona de Orbitoides tissoti-Sulcorbitoides pardoi
Vaughan & Cole 1943	%	%	%	Evansville Investment Co., sec. 2, T. 14 N., R. 8 E., Depth: between 4167-4172 feet
Vaughan & Cole 1943	%	%	%	%

Vaughanina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Ayala-Castanares 1963	Page 62	Orbitoides, Sulcoperculina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 62	Orbitoides, Sulcoperculina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Ayala-Castanares 1963	Page 63	Orbitoides, Sulcoperculina	areniscas de color amarillo, que intemperizan en pardo amarillento	%
Brönnimann 1954b	Page 93	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	Lepidorbitoides, Pseudorbitoides, Orbitoides, Sulcoperculina, ?Archaias	%	%
Brönnimann 1954b	%	Lepidorbitoides, Orbitoides	%	%
Brönnimann 1954b	%	Sulcoperculina	%	%
Brönnimann 1954b	%	Sulcoperculina, ?Meandropsina	%	%
Brönnimann 1954b	%	Pseudorbitoides, Orbitoides	%	Depth: 2985-3000 ft
~~Brönnimann 1954b~~	~~%~~	~~Pseudorbitoides?~~	~~%~~	~~%~~
Brönnimann 1954b	%	Omphalocyclus, Orbitoides, Lepidorbitoides, Sulcoperculina	%	%
Brönnimann 1954b	Page 95	%	%	redeposited
Brönnimann 1954b	Page 95	%	%	%
~~Brönnimann 1954b~~	~~Page 95~~	~~%~~	~~%~~	~~redeposited~~
Brönnimann 1954b	Page 95	Sulcoperculina, Omphalocyclus, Cuneolina; G. stuarti	%	%
Brönnimann 1954b	Page 95	?Meandropsina, Sulcoperculina; G. mayaroensis	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1954b	%	%	%	%
Brönnimann 1957	%	Vaughanina, Orbitoides, Sulcoperculina	%	Depth: 2985-3000 ft
Brönnimann 1958a	Text-Fig. 1	Sulcoperculina, G. fornicata, G. contusa, G. rosetta, G. stuarti, S. ex gr. lapparenti	dark gray, hard fragmental limestone; reefal or fore-reefal	Cuban American Cristales well no. 1A; Depth 2789-2808 ft, 2808-2838 ft; stratigraphic sequence not undisturbed
Brönnimann 1958b	%	Sulcoperculina, Pseudorbitoides, Lepidorbitoides, Orbitoides, Orbitocyclina	cream white microcoquinoid calcilutite	well cutting, Coastal Petroleum Company No.1, T 42 s - R 33 E - Sec. 25; Depth: 6180-6200 ft
Brönnimann 1958b	%	Orbitocyclina, Orbitoides, Sulcoperculina, Siderolites	hard, dense, whitish to very pale orange limestone	%
Butterlin 1967	%	Sulcoperculina, Orbitoides	%	Depth: 851,3-854,4m
Butterlin 1967	%	Sulcoperculina	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1981	%	%	%	%
Butterlin 1992	ODP (DSDP)	%	%	eher *V. barkeri* (Butterlin 1992)
Butterlin 1992	ODP (DSDP)	%	%	zone à *Globotruncana gansseri*; eher *V. barkeri* (Butterlin 1992)
Butterlin 1992	ODP (DSDP)	Pseudorbitoides, Sulcoperculina	%	zone à *Globotruncana subspinosa* et *G. calcarata*; eher V. barkeri (Butterlin 1992)
Butterlin 1992	ODP (DSDP)	Lepidorbitoides, Orbitocyclina, Sulcoperculina, Pseudorbitoides	%	zone à Globotruncana gansseri; eher *V. barkeri* (Butterlin 1992)
Butterlin 1992	DSDP	Pseudorbitoides, Sulcoperculina	%	Maastrichtien supérieur (Douglas 1973)
Caudri 1944	%	Orbitoides, Pseudorbitoides, Lepidorbitoides, Omphalocyclus, ?Meandropsina	%	%
Caus et al. 2002	Page 138	Lepidorbitoides, Sulcoperculina, Orbitoides	silty limestone and argillaceous marl, intercalations of limestone rich in rudists, other molluscs; open marine environment with terrigenous input	%
Dilley 1973	table II	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Ellis & Messina 1967	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	Type species: Vaughanina cubensis
Hanzawa 1962	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Krijnen 1972	Page 10	%	%	%
Palmer 1934	%	Orbitoides (palmeri, browni)	%	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	%	Orbitoides, Orbitocyclina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	%	%	%	%

Pécheux 1984	Vaughanina	cubensis	%	%	%	MEX	CFP	7(24)	%
Pessagno 1962	Vaughanina	cubensis	Palmer	12	early Maastrichtian	USA	CFP	%	between Ponce and Adjuntas, south-central Puerto Rico
Pessagno 1962	Vaughanina	cubensis	Palmer	12	Middle-late Maestrichtian	USA	CFP	%	west of Penuelas, south-central Puerto Rico
Pessagno 1962	Vaughanina	cubensis	Palmer	12	Campanian	USA	CFP	%	south-central Puerto Rico
Premoli Silva & Brusa 1981	Vaughanina	cubensis	Palmer	50	late Campanian	NRU	CFP	1(1,2,4-6)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	sp.	%	50	late Campanian	NRU	CFP	1(3); 10(10)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	sp.	%	50	late Campanian	NRU	CFP	2(1,2)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	cubensis	Palmer	50	late Campanian	NRU	CFP	2(3-5,7,8)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	jordanae	Brönnimann	50	late Campanian	NRU	CFP	2(6); 3(5)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	cubensis	Palmer	50	late Campanian	NRU	CFP	3(6,8,9)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	sp.	%	50	late Campanian	NRU	CFP	4(2); 5(1)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	cubensis	%	50	late Campanian	NRU	CFP	5(2); 7(4); 12(10)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	sp.	%	50	middle Maastrichtian	NRU	CFP	7(2)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	cubensis	Palmer	50	late Campanian	NRU	CFP	10(9)	Site 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	sp.	%	50	Campanian	NRU	CFP	%	Hole 462; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	sp.	%	50	Campanian	NRU	CFP	%	Hole 462A; Nauru Basin
Premoli Silva & Brusa 1981	Vaughanina	sp.	%	49	Maastrichtian	KIR	CFP	%	Hole 165A; Line Islands
Renz 1955	Vaughanina	cubensis	Palmer	10	Maestrichtian	VEN	CFP	3(4-8); 4(1-2)	Paso Copey, west of San Sebastián, State of Aragua
Rosales Dominguez et al. 1994	Vaughanina	sp.	%	3	late Campanian-Maastrichtian	MEX	CFP	%	Río Suchiapa, SE de Tuxtla Gutiérrez
Rosales Dominguez et al. 1994	Vaughanina	cubensis	%	3	late Campanian-Maastrichtian	MEX	CFP	4(1)	Río Suchiapa, SE de Tuxtla Gutiérrez
Schlanger & Premoli Silva 1981	Vaughanina	sp.	%	50	Campanian	NRU	CFP	%	Site 462; Nauru Basin
Seiglie & Ayala-Castanares 1963	Vaughanina	sp.	%	1	%	CUB	CFP	%	Camino Viejo de Yaguaramas-Abreus; 2.3 kms. al WSW del Batey Cienaguita; 3 kms. al N de Algodones. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis cubensis	Palmer	1	late Maastrichtian	CUB	CFP	%	Camino Real Viejo de Yaguaramas-Abreus; 400 m. al W del Batey Cienaguita. Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis minor	subsp. nov.	1	late Campanian to early Maastrichtian	CUB	CFP	%	Camino Viejo Rodas-Abreus; 750 m al S del Arroyo Almendrillo; 2 km al N. de Abreus, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis minor	subsp. nov.	1	late Campanian to early Maastrichtian	CUB	CFP	%	Pozo Ranchuelo A, 5.5 km SW of Aguada de Pasajeros; Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis minor	subsp. nov.	1	late Campanian to early Maastrichtian	CUB	CFP	18(2,3); 19(1,2)	Pozo Ranchuelo A
Seiglie & Ayala-Castanares 1963	Vaughanina	guatemalensis	Brönnimann	1	late Campanian to early Maastrichtian	CUB	CFP	16(2)	Pozo Ranchuelo A
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis cubensis	Palmer	1	late Maastrichtian	CUB	CFP	18(1)	Extremo NW de la loma Guayos, situada a 2.8 km al SE del pueblo de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis globosa	subsp. nov.	1	early Maastrichtian	CUB	CFP	19(3); 20(1,2)	600 m al SSW de Chirino Prov. Matanzas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis cubensis	Palmer	1	late Maastrichtian	CUB	CFP	%	Quarry San Juan Bosco, Sti. Spiritus-Zaza; 2.75 km ENE del entronque de la Carretera Central con el Central Tuinucú, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis cubensis	Palmer	1	late Maastrichtian	CUB	CFP	%	Cantera en el extremo sureste de la loma Guayos, 1 2.8 km al SE del pueblo de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	barkeri	Brönnimann	1	Campanian to Maastrichtian	CUB	CFP	16(3); 17(1,2,4)	Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	barkeri	Brönnimann	1	Campanian to Maastrichtian	CUB	CFP	17(3,5)	Camino Fomento a Pedrero, 6.3 km de Fomento, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis	Palmer	1	%	CUB	CFP	%	Cantera en un mogote de caliza unos 2.5 km al SW de Guayos, Prov. Las Villas
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis	Palmer	1	%	CUB	CFP	%	Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Seiglie & Ayala-Castanares 1963	Vaughanina	cubensis	Palmer	1	%	CUB	CFP	%	Cantera Penalver, en el tramo de la Vía Monumental entre la Vía Blanca y la Carretera Central, Prov. La Habana
Vaughan & Cole 1943	Vaughanina	cubensis	Palmer	1	late Cretaceous	CUB	CFP	17(3,4); 18(1-10)	Habana Prov., Cuba

Orbitocyclina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site
Aguilar et al. 2002	Lepidorbitoides	minima	%	52	Campanian	MEX	CFP	1	Cardenas
Aguilar et al. 2002	Lepidorbitoides	minima	%	52	late Campanian	MEX	CFP	2(1-4);3(1-5)	Cardenas
Ayala-Castanares 1963	Lepidorbitoides	minima	Douvillé	3	late Campanian	MEX	CFP	%	right side of road Carretera Panamericana, de México a Tuxtla Gutiérrez, ca 3.9 km vor Tuxtla Gutiérrez
Ayala-Castanares 1963	Lepidorbitoides	minima	Douvillé	3	late Campanian	MEX	CFP	%	mismo afloramiento que Muestra Ay-109-57; 5 metros más alta estratigráficamente
Butterlin 1967	Lepidorbitoides	minima	Douvillé	52	Maastrichtian (late?)	MEX	CFP	%	Route Rayon-Tamasopo (État de san Luis Potosi)
Butterlin 1981	Pseudorbitella	americana	Hanzawa	68	%	MEX	CFP	32(6,7)	Mexico, Caribe
Butterlin 1992	Orbitocyclina	minima	%	50	Maastrichtien moyen	NRU	CFP	%	fosse de Nauru (Leg 61, Site 462, sections 48.1 et 48.2)
Butterlin 1992	Orbitocyclina	minima	(H. Douvillé)	52	Campanien sup. ou Maastrichtien inf.	MEX	CFP	1(3)	Capas Cardenas. Route Rayon-Tamasopo. Etat de San Luis Potosi (Mexique)
Butterlin 1992	Orbitocyclina	minima	(H. Douvillé)	50	Maastrichtien moyen	NRU	CFP	1(4)	Leg 61-Loc. 462-48.2-78/80(9)
Butterlin 1992	Orbitocyclina	minima	(H. Douvillé)	%	%	%	%	1(5)	%
Butterlin 1992	Orbitocyclina	minima	(H. Douvillé)	%	%	%	%	1(6)	%
Caudri 1944	Lepidorbitoides	minima	H. Douvillé	68	Maastrichtian	MEX	CFP	%	Mexico
Caudri 1944	Lepidorbitoides	minima	H. Douvillé	1	Maastrichtian	CUB	CFP	%	Cuba
Caus et al. 2002	Lepidorbitoides	minima	Douvillé	52	middle-late Campanian	MEX	CFP	1(1,2)	Cárdenas Basin; San Luis Potosí, NE Mexico
Gowda 1964	Orbitocyclina	ariyalurensis	Rao	44	Maestrichtian	IND	ASP	%	Trichinopoly district; near the village of Kallacurchi
Hanzawa 1962	Pseudorbitella	n. gen.	Hanzawa	%	Maastrichtian	%	%	%	restricted to Western Hemisphere
Hanzawa 1962	Pseudorbitella?	sp.	%	1	%	CUB	CFP	1(13)	Las Villas Province, Cuba
Hanzawa 1962	Pseudorbitella?	sp.	%	1	%	CUB	CFP	1(14)	5.1 km SE of Caliseo on the Carretera Central, Matanzas Province, Cuba
Hanzawa 1962	Pseudorbitella	americana	Hanzawa	2	Maastrichtian	USA	CFP	7(1-4)	Peninsular Oil and Refining Company's J. W. Cory
Hanzawa 1963	Pseudorbitella	americana	Hanzawa	1	%	CUB	CFP	3(1-7)	Santa Clara Province, Cuba
Loeblich & Tappan 1988	Orbitocyclina	sp.	Vaughan	68	Campanian-Maastrichtian	MEX	CFP	%	Mexico
Loeblich & Tappan 1988	Orbitocyclina	sp.	Vaughan	1	Campanian-Maastrichtian	CUB	CFP	%	Cuba
Loeblich & Tappan 1988	Orbitocyclina	sp.	Vaughan	2	Campanian-Maastrichtian	USA	CFP	%	Florida
Loeblich & Tappan 1988	Orbitocyclina	sp.	Vaughan	4	Campanian-Maastrichtian	USA	CFP	%	Louisiana
Loeblich & Tappan 1988	Orbitocyclina	minima	Vaughan	52	Maastrichtian	MEX	CFP	751(1-5)	near Cardenas, San Luis Potosi, Mexico
Loeblich & Tappan 1988	Orbitocyclina	americana	(Hanzawa)	2	upper Cretaceous, subsurface	USA	CFP	752(1-4)	Monroe County, Florida, USA
Neumann 1972	Lepidorbitoides	minima	Douvillé	31	late Campanian	FRA	EFP	2(3)	environs d'Aubeterre (Charente), route de Chalais
Neumann 1972	Lepidorbitoides	minima	Douvillé	32	late Campanian	ESP	EFP	2(6)	Montsech
Neumann 1972	Lepidorbitoides	minima	Douvillé	31	late Campanian	FRA	EFP	2(7)	près de Brossac
Papp 1954	Lepidorbitoides	minima pembergeri	n. ssp.	59	Campanian	AUT	EFP	1(3,4)	Steinbruch, Pembergerriegel
Papp 1954	Lepidorbitoides	minima minima	Douvillé	59	Campanian	AUT	EFP	1(5)	N. Gehöft Pemberger, am Waldrand
Papp 1954	Lepidorbitoides	minima minima	Douvillé	59	Campanian	AUT	EFP	1(6)	Flysch Bisamberg, nördlich Wien
Papp 1955a	Lepidorbitoides	minima pembergeri	Papp	59	Campanian	AUT	EFP	Abb. 1, fig.3,4	Pembergerriegel (Steinbruch)
Papp 1955a	Lepidorbitoides	minima minima	Douvillé	59	Campanian	AUT	EFP	Abb. 1, fig.5	nördlich Pemberger, am Waldrand
Papp 1955a	Lepidorbitoides	minima minima	Douvillé	59	Campanian	AUT	EFP	Abb. 1, fig.6	Flysch Bisamberg, nördlich Wien
Papp 1955b	Lepidorbitoides	minima pembergeri	Papp	59	Campanian	AUT	EFP	%	Steinbruch, Pembergerriegel (II)
Papp 1955b	Lepidorbitoides	minima minima	Douvillé	59	Campanian	AUT	EFP	%	nördlich Gehöft Pemberger (III)
Papp 1956a	Lepidorbitoides	minima minima	Douvillé	59	Campanian	AUT	EFP	1(1)	Bisamberg
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	7(34-36)	Tuxtla Guttierez
Pécheux 1984	Orbitocyclina	minima	%	3	%	MEX	CFP	%	Tuxtla Guttierez

Laffitteina

Publication	Genus	Species	Reference	Loc-No	Stratigraphic age	Country	Faunal Province	Illustration	Site

Pécheux 1984	%	%	%	%
Pessagno 1962	Text-fig.1	Sulcoperculina, Pseudorbitoides	massive limestone	Globotruncana fornicata-lapparenti-stuarti assemblage zone; thin section
Pessagno 1962	Text-fig.3	%	%	%
Pessagno 1962	%	%	limestone	%
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 51-3; Depth: 1) 91-96 cm; 2) 44-47 cm; 5) 91-96 cm; 6) 44-47 cm; Core 52-1; Depth: 4) 98-101 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 52-1; Depth: 3,10) 98-101 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 52-1; Depth: 1,2) 98-101 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 51-3; Depth: 3,8) 44-47 cm; 4,5,7) 91-96 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 51-3; Depth: 91-96 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 51-3; Depth: 6,9) 91-96 cm; 8) 44-47 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 52-1; Depth: 101-107 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 52-1; Depth: 98-101 cm
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 48, CC
Premoli Silva & Brusa 1981	Fig. 5	%	%	Core 51-3; Depth: 44-47 cm
Premoli Silva & Brusa 1981	Fig. 5	Pseudorbitoides, Globorotalia calcarata	%	Core 51/52: Pseudorbitoides-Vaughanina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Pseudorbitoides, Globorotalia calcarata	%	Core 21: Pseudorbitoides-Vaughanina assemblage
Premoli Silva & Brusa 1981	Fig. 5	Pseudorbitoides, Globorotalia gansseri	%	Core 16: Pseudorbitoides-Vaughanina assemblage
Renz 1955	Page 66	%	%	%
Rosales Dominguez et al. 1994	Page 30	Sulcoperculina	packstone con fragmentos biógenos	%
Rosales Dominguez et al. 1994	Page 30	Sulcoperculina	packstone con fragmentos biógenos	%
Schlanger & Premoli Silva 1981	Fig. 2	Pseudorbitoides; Globotruncana subspinosa, G. calcarata	%	%
Seiglie & Ayala-Castanares 1963	Page 6	Omphalocyclus, Orbitoides, Sulcoperculina	Caliza densa, dura, aporcelanada, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 6	Orbitoides, Omphalocyclus, Sulcoperculina	Calizas duras, recristalizadas, blancas, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 7	%	Caliza margosa	%
Seiglie & Ayala-Castanares 1963	Page 8	%	Marga arcillosa de grano fino a muy fino; dureza media, color gris oscuro	core depth 977 feet
Seiglie & Ayala-Castanares 1963	Page 8	Orbitoides	Caliza margosa, dura, uniforme, densa	core depth 1152-1153 feet
Seiglie & Ayala-Castanares 1963	Page 8	Orbitoides	Caliza margosa, dura, uniforme, densa	core depth 1152-1153 feet
Seiglie & Ayala-Castanares 1963	Page 10	Orbitoides, Sulcoperculina	Caliza arrecifal, blanca, con macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 10	Orbitoides, Sulcoperculina	Canto de caliza dura, redepositada en un conglomerado del Eoceno o Maastrichtiano; arrecifes orgánicos	%
Seiglie & Ayala-Castanares 1963	Page 11	Orbitoides, Sulcoperculina	Caliza blanca a blanco-grisácea, masiva, dura	%
Seiglie & Ayala-Castanares 1963	Page 11	%	Caliza masiva, nodulosa, con pequenas ostras	%
Seiglie & Ayala-Castanares 1963	Page 12	Orbitoides, Sulcoperculina	Caliza masiva, color rosáceo, con numerosos foraminíferos	%
Seiglie & Ayala-Castanares 1963	Page 13	Orbitoides, Sulcoperculina	Caliza blanca, densa, masiva	%
Seiglie & Ayala-Castanares 1963	Page 14	Orbitoides	Caliza masiva, blanca o gris, densa, dura con abundantes macroforaminíferos	%
Seiglie & Ayala-Castanares 1963	Page 14	Omphalocyclus, Siderolites, Sulcoperculina	Calcirudita, deleznable, arcillosa, color gris claro	%
Seiglie & Ayala-Castanares 1963	Page 15	Omphalocyclus, Orbitoides, Lepidorbitoides, Pseudorbitoides, Sulcoperculina	Calcirudita a calcarenita, dura, consolidada, color gris claro	%
Vaughan & Cole 1943	%	%	%	%

Orbitocyclina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks
Aguilar et al., 2002	Fig. 1	%	%	%
Aguilar et al., 2002	Fig. 1	Sulcoperculina (globosa, dickersoni), Vaughanina cf. cubensis; Globotruncana (arca, linneiana)	%	%
Ayala-Castanares 1963	Page 61	Orbitoides, Sulcoperculina, Pseudorbitoides	gravas de color pardo amarillento	ausführliche Lokalität im Text
Ayala-Castanares 1963	Page 62	Orbitoides, Sulcoperculina, Pseudorbitoides	gravas de color pardo amarillento	%
Butterlin 1967	%	Sulcoperculina	%	%
Butterlin 1981	%	%	%	%
Butterlin 1992	%	Lepidorbitoides, Sulcoperculina, Pseudorbitoides, Vaughanina	%	zone à *Globotruncana gansseri*
Butterlin 1992	%	%	%	%
Butterlin 1992	%	%	%	%
Butterlin 1992	%	%	%	%
Butterlin 1992	%	%	%	%
Caudri 1944	%	?Camerina, Borelis, ?Meandropsina	%	%
Caudri 1944	%	Orbitoides, Pseudorbitoides, Vaughanina, Omphalocyclus, ?Meandropsina	%	%
Caus et al. 2002		Sulcoperculina, Vaughanina, Orbitoides	open marine environment with terrigenous input	%
Govda 1964	p.305	Lepidorbitoids, Nummofallotia, Siderolites	%	%
Hanzawa 1962	%	%	%	Type species: Pseudorbitella americana Hanzawa
Hanzawa 1962	%	%	%	%
Hanzawa 1962	%	%	%	microspheric form?
Hanzawa 1962	%	%	%	Core: No. W-445; Depth:5,760-6,770 ft
Hanzawa 1963	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	Type species of Pseudorbitella
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Neumann 1972	%	%	%	%
Papp 1954	%	%	%	%
Papp 1954	%	Siderolites	%	%
Papp 1954	%	%	%	%
Papp 1955a	%	%	%	%
Papp 1955a	%	%	%	%
Papp 1955a	%	%	%	%
Papp 1955b	Fig. 1	Orbitoides (tissoti, media), Siderolites vidali, Pseudorbitoides trechmanni	%	%
Papp 1955b	Fig. 1,2	Orbitoides media, Siderolites vidali	%	%
Papp 1956a	Page 137	%	%	%
Pécheux 1984	%	Orbitoides, Sulcoperculina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Sulcoperculina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Sulcoperculina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Sulcoperculina, Pseudorbitoides	grès, parfois calcaires ou conglomératiques, et de marnes	%
Pécheux 1984	%	Orbitoides, Sulcoperculina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Sulcoperculina, Pseudorbitoides	calcaires gréseux	%
Pécheux 1984	%	Orbitoides, Vaughanina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	%	Orbitoides, Vaughanina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%
Pécheux 1984	%	Orbitoides, Vaughanina, Sulcoperculina, Chubbina	marnes gréseuses et de calcaires micritiques	%

Laffitteina

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks

Blanc 1975	Lafitteina	mengaudi	(Astre)	31	Maastrichtian	FRA	EFP	pl.1, 2	Vertus, Dept. Marne; France; Lat: 721,36, Long: 135,92
Caus 1988	Lafitteina	sp.	%	32	late Maastrichtian	ESP	EFP	%	Pyrenean basin
Caus & Hottinger 1986	Lafitteina	sp.	%	32	Maastrichtian	ESP	EFP	%	Pyrenees
Fleury et al. 1979	Lafitteina	mengaudi	(Astre)	36	late Cretaceous	GRC	EFP	%	la moitié occidentale du chaînon d'Ayios Nikolaos, Peloponne
Fleury et al. 1985	Lafitteina	sp.	%	%	Maastrichtian	%	%	%	northern and western Africa, middle Europe, Irar
Fleury et al. 1985	Lafitteina	sp.	%	32	Maastrichtian	ESP	EFP	%	Spain
Fleury et al. 1985	Lafitteina	sp.	%	35	Maastrichtian	ITA	EFP	%	Italy
Fleury et al. 1985	Lafitteina	sp.	%	63	Maastrichtian	SVN	EFP	%	Slovenia
Fleury et al. 1985	Lafitteina	sp.	%	62	Maastrichtian	HRV	EFP	%	Croatia
Fleury et al. 1985	Lafitteina	sp.	%	36	Maastrichtian	GRC	EFP	%	Greece
Fleury et al. 1985	Lafitteina	sp.	%	69	Maastrichtian	ZYP	EFP	%	Cyprus
Fleury et al. 1985	Lafitteina	sp.	%	38	Maastrichtian	TUR	EFP	%	Turkey
Fleury et al. 1985	Lafitteina	sp.	%	43	Maastrichtian	AFG	ASP	%	Hindoukouch
Fleury et al. 1985	Lafitteina	sp.	%	46	Maastrichtian	PAK	ASP	%	Pakistan
Fleury et al. 1985	Lafitteina	sp.	%	15	Maastrichtian	MAR	AFP	%	Morocco
Fleury et al. 1985	Lafitteina	sp.	%	16	Maastrichtian	DZA	AFP	%	Algeria
Fleury et al. 1985	Lafitteina	sp.	%	17	Maastrichtian	TUN	AFP	%	Tunesia
Fleury et al. 1985	Lafitteina	sp.	%	18	Maastrichtian	LBY	AFP	%	Libya
Gusic & Jelaska 1990	?Lafitteina	sp.	%	62	Maastrichtian	HRV	EFP	19(2)	Likva cove W of Sutivan; Island of Brac
Gusic et al. 1998	Lafitteina	sp.	%	62	Maastrichtian	HRV	EFP	%	Island of Brac
Inan 1996a	Lafitteina	oeztuerki	%	38	Maastrichtian	TUR	EFP	%	Koyulhisar-Sivas
Inan 1996a	Lafitteina	aff. marsicana	%	38	Maastrichtian	TUR	EFP	%	Koyulhisar-Sivas
Inan 1996b	Lafitteina	boluensis	Dizer	38	late Maastrichtian	TUR	EFP	2(8-12)	Ilgaz mountains (Kastamonu)
Inan 1996b	Lafitteina	aff. marsicana	Farinacci	38	late Maastrichtian	TUR	EFP	1(1,2)	Tecer mountains (Sivas), Koyulhisar (Sivas)
Inan 1996b	Lafitteina	marsicana	Farinacci	38	late Maastrichtian	TUR	EFP	1(3-6)	Tecer mountains (Sivas)
Inan 1996b	Lafitteina	oeztuerki	Inan	38	late Maastrichtian	TUR	EFP	1(7,8,11); 2(3,4,6,7)	Koyulhisar (Sivas)
Inan 1996b	Lafitteina	oeztuerki	Inan	38	late Maastrichtian	TUR	EFP	1(9,10); 2(1,2)	Koyulhisar (Sivas), Tecer Mountains (Sivas)
Inan 1996b	Lafitteina	oeztuerki	Inan	38	late Maastrichtian	TUR	EFP	2(5)	Tecer mountains (Sivas)
Inan 1996b	Lafitteina	boluensis	Dizer	38	late Maastrichtian	TUR	EFP	2(8-12)	Ilgaz mountains (Kastamonu)
Inan 1996b	Lafitteina	bibensis	Marie	38	Paleocene	TUR	EFP	3(1-3,7,8)	Niksar (Tokat)
Inan 1996b	Lafitteina	bibensis	Marie	38	Paleocene	TUR	EFP	3(4,6)	Koyulhisar (Sivas)
Inan 1996b	Lafitteina	bibensis	Marie	38	Paleocene	TUR	EFP	3(5)	Kayabogazi (Mudurnu)
Inan 1996b	Lafitteina	cf. monodi	Marie	38	Paleocene	TUR	EFP	3(9-13)	Niksar (Tokat)
Inan 1996b	Lafitteina	erki	(Sirel)	38	Paleocene	TUR	EFP	4(1,3,11)	Tecer mountains (Sivas)
Inan 1996b	Lafitteina	erki	(Sirel)	38	Paleocene	TUR	EFP	4(2)	Kayabogazi (Mudurnu)
Inan 1996b	Lafitteina	erki	(Sirel)	38	Paleocene	TUR	EFP	4(4,5,7,8,13)	Koyulhisar (Sivas)
Inan 1996b	Lafitteina	erki	(Sirel)	38	Paleocene	TUR	EFP	4(6)	Gölköy (Ordu)
Inan 1996b	Lafitteina	erki	(Sirel)	38	Paleocene	TUR	EFP	4(9,10,12)	Haymana (Ankara)
Inan 1996b	Lafitteina	bibensis	Marie	38	Maastrichtian	TUR	EFP	%	Demrecay area, Beydaglari
Inan 1996b	Lafitteina	bibensis	Marie	38	late Maastrichtian	TUR	EFP	%	Gölköy area
Inan 1996b	Lafitteina	oeztuerki	Inan	38	late Maastrichtian	TUR	EFP	%	Gölköy area
Inan 1996b	Lafitteina	aff. marsicana	Farinacci	38	late Maastrichtian	TUR	EFP	%	between Koyulhisar and Resadiye
Inan 1996b	Lafitteina	oeztuerki	Inan	38	late Maastrichtian	TUR	EFP	%	between Koyulhisar and Resadiye
Inan 1996b	Lafitteina	cf. marsicana	Farinacci	38	late Maastrichtian	TUR	EFP	%	Tecer mountains (Sivas)
Inan 1996b	Lafitteina	marsicana	Farinacci	38	late Maastrichtian	TUR	EFP	%	Tecer mountains (Sivas)
Inan 2002	Lafitteina	turcica	n. sp.	38	Maastrichtian	TUR	EFP	1(1-5)	Yolak ridge, Tecer mountains (Sivas)
Loeblich & Tappan 1988	Lafitteina	sp.	Marie	31	Maastrichtian	FRA	EFP	%	France
Loeblich & Tappan 1988	Lafitteina	sp.	Marie	32	Maastrichtian	ESP	EFP	%	Spain
Loeblich & Tappan 1988	Lafitteina	sp.	Marie	35	Maastrichtian	ITA	EFP	%	Italy
Loeblich & Tappan 1988	Lafitteina	sp.	Marie	36	Maastrichtian	GRC	EFP	%	Greece
Loeblich & Tappan 1988	Lafitteina	sp.	Marie	75	Maastrichtian	YUGf	EFP	%	Yugoslavia
Loeblich & Tappan 1988	Lafitteina	sp.	Marie	19	Maastrichtian	MRT	AFP	%	W. Africa, Mauritania
Loeblich & Tappan 1988	Lafitteina	mengaudi	G. Astre	31	Maastrichtian	FRA	EFP	759(1,2,9)	Mont-Aimé, Dept. Marne; France
Loeblich & Tappan 1988	Lafitteina	mengaudi	G. Astre	31	Maastrichtian	FRA	EFP	759(3-8)	Vertus, Dept. Marne; France
Renz 1955	Lafitteina	sp.	%	10	Paleocene	VEN	CFP	3(2)	at base of lighthouse, large morro of San Juan, State of Guárico
Renz 1955	Lafitteina	sp.	%	10	Paleocene	VEN	CFP	3(3)	at Morro de la Gruta, N of San Sebastian, State of Aragua
Sirel 1996	Lafitteina	mengaudi	(Astre)	38	late Maastrichtian	TUR	EFP	1(1-22)	Dündarli town, SW of Kayseri, Central Turkey
Sirel 1996	Lafitteina	mengaudi	(Astre)	38	Paleocene	TUR	EFP	2(1-22); 3(1-11)	Gölköy section, S of Ordu, Northern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Danian-Thanetian	TUR	EFP	%	Haymana basin, S of Ankara
Sirel 1996	Lafitteina	mengaudi	%	38	Maastrichtian	TUR	EFP	%	Haymana basin, S of Ankara
Sirel 1996	Lafitteina	mengaudi	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Danian-Thanetian	TUR	EFP	%	Gölköy town, S of Ordu, Northern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Maastrichtian	TUR	EFP	%	Peyamli hill, 8 km north of Dündarli town, SW of Kayseri
Sirel 1996	Lafitteina	mengaudi	%	38	early Paleocene	TUR	EFP	%	Peyamli hill, 8 km north of Dündarli town, SW of Kayseri
Sirel 1996	Lafitteina	mengaudi	%	38	Maastrichtian	TUR	EFP	%	Demircilik village, NW of Tecer mountains, S of Sivas, Central Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	early Paleocene	TUR	EFP	%	Demircilik village, NW of Tecer mountains, S of Sivas, Central Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Maastrichtian	TUR	EFP	%	Hekimhan town, NW of Malatya, Eastern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	early Paleocene	TUR	EFP	%	Gölköy town, S of Ordu, Northern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Maastrichtian	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km west of Haymana town, S of Ankara
Sirel 1996	Lafitteina	mengaudi	%	38	early Paleocene	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km west of Haymana town, S of Ankara
Sirel 1996	Lafitteina	mengaudi	%	38	early Thanetian	TUR	EFP	%	Yarisli place, W of Burdur, Southern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Tertiary	TUR	EFP	%	S of Cücelköy village,, Elfani, E of Zonguldak, Northern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Paleocene	TUR	EFP	%	Ovacuma village, Ulus town, NE of Zonguldak, Northern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	?Paleocene	TUR	EFP	%	Seben town, S of Bolu, Northern Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Maastrichtian	TUR	EFP	%	Eozandere place, Ilgaz mountains, N of Cankiri, Central Turkey
Sirel 1996	Lafitteina	mengaudi	%	38	Paleocene	TUR	EFP	%	Gölköy section, S of Ordu, Northern Turkey
Sirel 1996	Lafitteina	aff. mengaudi	(Astre)	38	Paleocene	TUR	EFP	4(1,4-8,10,12-18)	Gölköy section, S of Ordu, Northern Turkey
Sirel 1996	Lafitteina	aff. mengaudi	(Astre)	38	Paleocene	TUR	EFP	4(2,3,9,11)	Eolu regions, Northern Turkey
Sirel 1996	Lafitteina	aff. mengaudi	(Astre)	38	Maastrichtian	TUR	EFP	4(19)	Ilgaz mountains, N of Cankiri, Northern Turkey
Sirel 1996	Lafitteina	aff. mengaudi	%	38	Maastrichtian	TUR	EFP	%	Eozandere place, Ilgaz mountains, N of Cankiri, Central Turkey
Sirel 1996	Lafitteina	aff. mengaudi	%	38	Paleocene	TUR	EFP	%	Gölköy section, S of Ordu, Northern Turkey
Sirel 1996	Lafitteina	aff. mengaudi	%	38	?Paleocene	TUR	EFP	%	Seben town, S of Bolu, Northern Turkey
Sirel 1996	Lafitteina	conica	Drooger	38	late Maastrichtian	TUR	EFP	5(1-12); 6(1-12); 7(1-17)	Eozandere village, Ilgaz mountains, N of Cankiri
Sirel 1996	Lafitteina	conica	%	38	Maastrichtian	TUR	EFP	%	Eozandere place, Ilgaz mountains, N of Cankiri, Central Turkey
Sirel 1996	Lafitteina	erki	(Sirel)	38	early Thanetian	TUR	EFP	8(1-8)	Gölköy town, S of Ordu
Sirel 1996	Lafitteina	erki	%	38	Thanetian	TUR	EFP	%	Gölköy town, S of Ordu, Northern Turkey
Sirel 1996	Lafitteina	erki	%	38	early Thanetian	TUR	EFP	%	Yarisli place, W of Burdur, Southern Turkey
Sirel 1996	Lafitteina	koyulhisarica	n.sp.	38	late Maastrichtian	TUR	EFP	9(1-22)	Koyulhisar town, NE of Sivas, Central Turkey
Zambetakis-Lekkas 1988	Lafitteina	mengaudi	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Chrissovitsi
Zambetakis-Lekkas 1988	Lafitteina	mengaudi	%	36	late Maastrichtian	GRC	EFP	%	Coupe de Kamenitsa

Siderolites

Publication	Genus	Species	Reference	Loc-No	Stratigraphic Age	Country	Faunal Province	Illustration	Site

Blanc 1975	Page 62	%	calcarénite jaunâtre plus ou moins indurée, à passées marneuses (sur 5 m	%
Caus 1988	%	%	lagoon	%
Caus & Hottinger 1986	%	%	fácies detríticas y posiblemente salobres	%
Fleury et al. 1979	Fig. 3	Rhapydionina	niveaux blanc où alternent de nouveau dolomies, calcaires "rubannés", parfois bréchique	*Syn: Laffitteina marsicana* Farinacci
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Fleury et al. 1985	Fig. 4	%	%	%
Gusic & Jelaska 1990	%	%	grainstone	%
Gusic et al. 1988	Fig. 1	%	skeletal wackestone; restricted platform, shallow subtidal, probably with fresh-water (brackish) influence	%
Inan 1996a	Fig. 1	%	Limestone; Lagoon - Tida	%
Inan 1996a	Fig. 1	%	Limestone; Tidal - Back reef	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	Rhapydionina	%	%
Inan 1996b	Fig. 1	Orbitoides, Cuneolina	%	%
Inan 1996b	Fig. 1	Omphalocyclus, Cuneolina, Loftusia	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 1996b	Fig. 1	%	%	%
Inan 2002	Fig. 1	%	clayey limestone, sandy lst., brecchiated lst. and dolomitic lst. interbedding; shallowmarine	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Renz 1955	%	%	limestone	eigentlich nur oKreide und östliche Hemisphäre
Renz 1955	%	%	limestone	eigentlich nur oKreide und östliche Hemisphäre
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	Loftusia, Siderolites, Hellenocyclina, Orbitoides, Sirtina	Sandstone, sandy limestone, argillaceous limestone	%
Sirel 1996	Fig. 1	Omphalocyclus, Siderolites, Hellenocyclina, Orbitoides, Loftusia	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	Fig. 1	%	algal limestones	%
Sirel 1996	Fig. 1	Loftusia, Siderolites, Hellenocyclina, Orbitoides, Omphalocyclus	limestone; shallow water	%
Sirel 1996	Fig. 1	%	algal limestones; shallow water	%
Sirel 1996	Fig. 1	Loftusia, Omphalocyclus	limestone; shallow water	%
Sirel 1996	Fig. 1	Globorotalia	algal limestones; shallow water	%
Sirel 1996	Fig. 1	Loftusia	limestone; shallow water	%
Sirel 1996	Fig. 1	%	algal limestones; shallow water	%
Sirel 1996	Fig. 1	Omphalocyclus, Siderolites, Hellenocyclina, Orbitoides, Sirtina	limestone; shallow water	%
Sirel 1996	Fig. 1	%	algal limestones; shallow water	%
Sirel 1996	Fig. 1	%	limestone; shallow water	%
Sirel 1996	Fig. 1	%	limestone; shallow water	%
Sirel 1996	Fig. 1	%	limestone; shallow water	%
Sirel 1996	Fig. 1	%	algal limestones; shallow water	%
Sirel 1996	Fig. 1	Loftusia	limestone; shallow water	%
Sirel 1996	Fig. 1	%	limestone	%
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	Loftusia	limestone; shallow water	%
Sirel 1996	Fig. 1	%	limestone	%
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	%	%	%
Sirel 1996	Fig. 1	Loftusia	limestone; shallow water	%
Sirel 1996	Fig. 1	%	%	type locality
Sirel 1996	Fig. 1	%	limestone	%
Sirel 1996	Fig. 1	%	algal limestone and marls	%
Sirel 1996	Fig. 1	Loftusia	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%

Siderolites

Publication	Loc-Descr.	Association	Lithology and Facies	Remarks

Abdelghany 2003	Siderolites	calcitrapoides	Lamarck	23	late Campanian-Maastrichtian	OMN	AFP	%		northern Oman Mountains
Abdelghany 2003	Siderolites	calcitrapoides	Lamarck	23	late Campanian-Maastrichtian	OMN	AFP	fig. 10; 13,14; sample 4		northern Oman Mountains
Abramovich et al. 2002	Siderolites	denticulatus	Douvillé	29	%	MDG	AFP	3(1-3)		Amboanio, Mahajanga Basin, Madagascar
Abramovich et al. 2002	Siderolites	calcitrapoides	Lamarck	29	%	MDG	AFP	3(4-5)		Eerivotra, Mahajanga Basin, Madagascar
Al-Omari & Sadek 1976	Siderolites	calcitrapoides	Lamarck	56	Maastrichtian	IRN	AFP	%		Iran
Al-Omari & Sadek 1976	Siderolites	sp.	%	23	Maastrichtian	OMN	AFP	%		Oman
Andreieff & Neumann 1983	Siderolites	praevidali	n. sp.	31	Campanian	FRA	EFP	1(1-9); 2(1-7, 9-11)		La Brande, près de Pons (Charente-Maritime)
Andreieff & Neumann 1983	Siderolites	praevidali	n. sp.	31	Campanian	FRA	EFP	2(8)		Région de Mirambeau (Charente-Maritime)
Andreieff & Neumann 1983	Siderolites	praevidali	n. sp.	31	Campanian	FRA	EFP	2(12,13)		Sondage d'Archiac (Charente)
Andreieff & Neumann 1983	Siderolites	praevidali	n. sp.	31	Campanian	FRA	EFP	3(1)		Falaise du Pilou (Charente-Maritime)
Andreieff & Neumann 1983	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	1(10,11,13); 3(3)		Le Caillaud (Charente-Maritime)
Andreieff & Neumann 1983	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	1(12)		Aubeterre (Charente)
Andreieff & Neumann 1983	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	1(14,15)		Montgouverne près de Pons (Charente-Maritime)
Andreieff & Neumann 1983	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	3(2)		Saint-Martial-sur-Né (Charente)
Andreieff & Neumann 1983	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	3(4)		Falaise du Pilou (Charente-Maritime)
Andreieff & Neumann 1983	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	3(5,7-9)		Le Buisson (Dordogne)
Andreieff & Neumann 1983	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	3(6)		Le Caillaud (Charente-Maritime)
Andrusov 1934	Siderolites	vidali	Douvillé	71	Maastrichtian	SVK	EFP	%		Eradlo, près de Brezová
Arni 1933	Siderolites	heracleae	Arni	36	Maastrichtian	GRC	EFP	5(1)		~~Karvéla~~-Kamm, Thessalischer Pindos
Arni 1933	Siderolites	heracleae	Arni	38	%	TUR	EFP	5(2)		Kepestepe (Tavargullu), Ost Eregli, Kleinas. Schwarzmeerküste
Arni 1933	Siderolites	calcitrapoides	Lamarck	36	Maastrichtian	GRC	EFP	5(3,4)		Karvéla-Kamm, Thessalischer Pindos
Azema et al. 1979	Siderolites	calcitrapoides	(Lamarck)	32	Maastrichtian	ESP	EFP	40(1)		Sierra Seca (Internal Prebetic)
Azema et al. 1979	Siderolites	calcitrapoides	(Lamarck)	32	Maastrichtian	ESP	EFP	39(1)		Sierra de Arguena (Prebetic)
~~Azema et al. 1979~~	~~?Siderolites~~	~~sp.~~	~~%~~	~~65~~	~~?Cretaceous-Paleocene?~~	~~PHL~~	~~ASP~~	~~%~~		~~Pinugay Hill, Tanay, Rizal, Central Luzon~~
Barattolo & Schiattarella (IT)	Siderolites	cf. calcitrapoides	%	35	Maastrichtian	ITA	EFP	%		Capri
Barattolo & Schiattarella (IT)	Siderolites	calcitrapoides	%	35	Maastrichtian-Paleocene?	ITA	EFP	%		Capri
Barrier & Neumann 1959	Siderolites	sp.	%	31	Campanian	FRA	EFP	%		Cordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Siderolites	sp.	%	31	Campanian	FRA	EFP	%		Cordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Siderolites	sp.	%	31	Maastrichtian	FRA	EFP	%		Cordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Barrier & Neumann 1959	Siderolites	sp.	%	31	Maastrichtian	FRA	EFP	%		Cordogne (Lalinde, Limeuil, Le Bugue, Le Buisson, Saint-Cyprien) France
Bignot 1972	Siderolites	calcitrapoides	Lamarck	63	Maastrichtian	SVN	EFP	%		Le Sabotin
Bignot 1972	Siderolites	denticulatus	Douvillé	63	Maastrichtian	SVN	EFP	%		Le Sabotin
Bignot 1972	Siderolites	calcitrapoides	Lamarck	63	Maastrichtian	SVN	EFP	%		la route 2058 entre Sedovec et Ravnica
Bignot 1972	Siderolites	sp.	%	63	Maastrichtian	SVN	EFP	%		Coupe de Kalise
Bignot & Neumann 1997	Siderolites	vidali	Douvillé	58	Campanian	CHE	EFP	%		Schweiz
Bignot & Neumann 1997	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	%		Österreich
Busulini et al. 1984	Siderolites	calcitrapoides	%	35	late Maastrichtian	ITA	EFP	%		Sovana et Lanaitto (Oliena)
Butterlin 1967	Siderolites	calcitrapoides	Lamarck	36	late Maastrichtian	GRC	EFP	%		du col d'altitude 860m à Kedronas, Grèce
Butterlin 1967	Siderolites	calcitrapoides	Lamarck	36	late Maastrichtian	GRC	EFP	%		Chemin Kato Gramatikon à Ano Gramatikon, à la cote 1030m (Province d'Édessa, Macédoine)
Caus 1988	Siderolites	sp.	%	32	Maastrichtian	ESP	EFP	%		Pyrenean basin
Caus 1988	Siderolites	sp.	%	32	Maastrichtian	ESP	EFP	%		Pyrenean basin
Caus & Cornella 1983	Siderolites	calcitrapoides	%	32	Maastrichtian; 70-<70 Ma	ESP	EFP	%		Sierra del Montsec, Sierras Marginales; bassin sud-pyrénéen
Caus & Cornella 1983	Siderolites	denticulatus	%	32	Maastrichtian; <70-<70 Ma	ESP	EFP	%		Sierra del Montsec, Sierras Marginales; bassin sud-pyrénéen
Caus et al. 1996	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	2(5)		Turkey
Caus et al. 1996	Siderolites	calcitrapoides s.l.	%	31/32	early Maastrichtian	FRA/ESP	EFP	%		South-Pyrenean
Caus et al. 1996	Siderolites	calcitrapoides	%	31/32	middle-late Maastrichtian	FRA/ESP	EFP	%		North- Pyrenean
Caus et al. 1996	Siderolites	calcitrapoides	%	31	late Maastrichtian	FRA	EFP	%		Gensac (France)
Cox 1937	Siderolites	calcitrapoides	%	56	%	IRN	AFP	%		Iran
Cox 1937	Siderolites	sp.	%	23	%	OMN	AFP	%		Jabal al Abyadh, near Yanqul, Oman Peninsula
Cox 1937	Siderolites	calcitrapoides	%	56	late Cretaceous	IRN	AFP	%		Kuh-I-Abbagh, Bakhtiari Country
Dilley 1973	Siderolites	%	Lamarck	%	Maastrichtian	%	%	%		N. Europe, S Europe, N Africa, Middle East, S USSR, India
Fleury 1977	Siderolites	calcitrapoides	%	36	late Cretaceous	GRC	EFP	%		coupe du Mavrovouni, Griechenland
Fleury et al. 1985	Siderolites	calcitrapoides	%	32	Maastrichtian	ESP	EFP	%		N Spain
Fleury et al. 1985	Siderolites	calcitrapoides	%	57	Maastrichtian	NLD	EFP	%		Netherlands
Fleury et al. 1985	Siderolites	calcitrapoides	%	56	Maastrichtian	IRN	AFP	%		Iran
Fleury et al. 1985	Siderolites	calcitrapoides	%	16	Maastrichtian	DZA	AFP	%		Algeria
Fleury et al. 1985	Siderolites	calcitrapoides	%	18	Maastrichtian	LBY	AFP	%		Libya
Fleury et al. 1985	Siderolites	calcitrapoides	%	22	Maastrichtian	SAU	AFP	%		Saudi-Arabia
Fleury et al. 1985	Siderolites	calcitrapoides	%	28	Maastrichtian	SYR	AFP	%		Syria
Fleury et al. 1985	Siderolites	calcitrapoides	%	46	Maastrichtian	PAK	ASP	%		Pakistan
Fleury et al. 1985	Siderolites	calcitrapoides	%	44	Maastrichtian	IND	ASP	%		southern India
Fleury et al. 1990	Siderolites	calcitrapoides	%	36	Maastrichtian	GRC	EFP	pl, fig. E		monts Valtou
Fleury et al. 1990	Siderolites	calcitrapoides	%	62	%	HRV	EFP	%		Yougoslavie septentrionale
Fleury et al. 1990	Siderolites	calcitrapoides	%	38	%	TUR	EFP	%		Turquie centrale
Fleury et al. 1990	Siderolites	calcitrapoides	%	37	%	YUG	EFP	%		Serbie occidentale
Fleury et al. 1990	Siderolites	calcitrapoides	%	36	%	GRC	EFP	%		Grèce orientale
Fleury et al. 1990	Siderolites	calcitrapoides	%	28	%	SYR	AFP	%		Syrie
Fleury et al. 1990	Siderolites	calcitrapoides	%	56	%	IRN	AFP	%		Iran, Chaine du Zagros
Gaetani et al. 1980	Siderolites	calcitrapoides	Lamarck	73	late Maastrichtian	CHN	ASP	14(1,3,6)		Kangi Chu, Zanskar Range (Ladakh-Himalaya)
Görmüs 1999	Siderolites	calcitrapoides	Lamarck	38	early-Middle Maastrichtian	TUR	EFP	%		Hasanlikaya location, 10-15 km SW Hekimhan town center
Gowda 1964	Siderolites	calcitrapoides	Lamarck	44	Maastrichtian	IND	ASP	%		Trichinopoly district; near the village of Kallacurchi
Gowda 1964	Siderolites	calcitrapoides	Lamarck	44	Maastrichtian	IND	ASP	%		Pondicherry district, South India
Hagn 1971	Siderolites	calcitrapoides	Lamarck	33	late Maastrichtian	DEU	EFP	%		Almagmach SW Immenstadt, Allgäu
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		drill-hole Maastricht, G.B. 3496 (15)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		E.N.C.I. quarry, Lichtenberg section
Hofker 1966	Siderolites	calcitrapoides	%	57	%	NLD	EFP	%		Kunrade-chalk
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		Albert Canal, cutting of Caster and Vroenhover
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		Eiebosch
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		drill-hole Terblijt, G.B. 3525
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		Windhagen, north of Windhagen
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		quarry Franssen-Nelissen
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		Schieversberg, quarry Muyres and Bundersberg
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		de Tombe (37)
Hofker 1966	Siderolites	calcitrapoides	%	57	%	NLD	EFP	%		t Rooth (38)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		E.N.C.I. quarry, Lichtenberg section (39)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		Well Fortress St. Pieter, drill-hole G.B. 194 (40)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		quarry van der Zwaan (41)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		Valkenburg, municipal grotto (42)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		drill-hole Sibbe, G.B. 3621 (43)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		quarry Curfs (44)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		Keerderberg (45)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		drill-hole Weert, G.B. 3670 (53)
Hofker 1966	Siderolites	calcitrapoides	%	57	Dano-Maastrichtian	NLD	EFP	%		drill-hole Heisterbrug, S.M. XVIII (63)
Hofker 1966	Siderolites	calcitrapoides	%	57	Paleocene, Dano-Maastrichtiar	NLD	EFP	%		drill-hole Puth, S.M. XVII (64)

Abdelghany 2003	Fig. 1	Sulcoperculina	limestone, pink limestone	%
Abdelghany 2003	Fig. 1	Orbitoides, Sulcoperculina	chalky limestone	%
Abramovich et al. 2002	Fig. 1	%	%	%
Abramovich et al. 2002	Fig. 1	%	%	%
Al-Omari & Sadek 1976	%	Omphalocyclus, Orbitoides	%	%
Al-Omari & Sadek 1976	%	Omphalocyclus	%	%
Andreieff & Neumann 1983	%	%	%	biozone CIVa
Andreieff & Neumann 1983	%	%	%	biozone CIVb
Andreieff & Neumann 1983	%	%	%	profondeurs: 77,30m; 74,60m; biozone CIVa
Andreieff & Neumann 1983	%	%	%	biozone CIVa
Andreieff & Neumann 1983	%	%	%	biozone CVI
Andreieff & Neumann 1983	%	%	%	biozone CV
Andreieff & Neumann 1983	%	%	%	biozone CVI
Andreieff & Neumann 1983	%	%	%	biozone CV
Andreieff & Neumann 1983	%	%	%	biozone CIVb
Andreieff & Neumann 1983	%	%	%	biozone CVII
Andreieff & Neumann 1983	%	%	%	biozone CIVb
Andrusov 1934	%	Orbitoides	%	%
Arni 1933	%	Orbitoides media, O. apiculata, Lepidorbitoides paronai	Bindemittel von sandigen, brecciösen, selten kongl. Lagen, eingeschaltet in Plattenkalk	%
Arni 1933	%	%	fossilführender Sandstein	%
Arni 1933	%	%	brecciöse bis kongl. Lage des oberen Plattenkalk	%
Azema et al. 1979	%	Orbitoides, Lepidorbitoides, Sulcoperculina	biomicrorudite (grainstone); open platform environment	%
Azema et al. 1979	%	Sulcoperculina, Orbitoides, Lepidorbitoides	terrigenous biomicritic limestone (packstone), irregularly recrystallized; open carbonate platform facies	%
~~Azema et al. 1979~~	~~Txt Fig. 1–3~~	~~Lepidorbitoides, Omphalocyclus, Pseudorbitoides, Orbitoides~~	~~sharpstone bearing conglomeratic sst.~~	~~Globotruncana lapparenti, G. sp.~~
Barattolo & Schiattarella (IT)	%	%	calcareous polygenic conglomerate	keine genaue Lokalität, Paper aus dem Internet!!!
Barattolo & Schiattarella (IT)	%	Hellenocyclina	whitish sub-crystalline limestone	keine genaue Lokalität, Paper aus dem Internet!!!
Barrier & Neumann 1959	%	Nummofallotia cretacea	calcaires grumeleux plus ou moins fins	%
Barrier & Neumann 1959	%	Cuneolina, Dictyopsella, Nummofallotia cretacea	calcaires grumeleux plus ou moins gréseux et grossiers	%
Barrier & Neumann 1959	%	Dictyopsella, Nummofallotia cretacea, Orbitoides media	calcaires finement grumeleux	%
Barrier & Neumann 1959	%	Meandropsina, Nummofallotia cretacea	calcaires détritiques plus ou moins gréseux	%
Bignot 1972	Page 86	Orbitoides, Lepidorbitoides	%	%
Bignot 1972	Page 86	Orbitoides, Lepidorbitoides	%	%
Bignot 1972	Page 87	%	%	%
Bignot 1972	Page 94	Orbitoides, Lepidorbitoides	%	%
Bignot & Neumann 1997	%	Orbitoides	%	Paläolatitude angegeben
Bignot & Neumann 1997	%	Orbitoides	%	Paläolatitude angegeben
Busulini et al. 1984	Fig. 2	Orbitoides apiculata, Clypeorbis mamillata, Lepidorbitoides cf. socialis	%	%
Butterlin 1967	%	Orbitoides, Omphalocyclus, Lepidorbitoides, Sulcoperculina	%	%
Butterlin 1967	%	Lepidorbitoides, Orbitoides, Sulcoperculina	%	%
Caus 1988	%	%	Carbonate platform, deeper protected shelf (40-60m); open marine shelf	%
Caus 1988	%	%	terrigeneous platform; protected shelf (0-60 m); open marine shelf	%
Caus & Cornella 1983	%	Cuneolina, Dictyopsella, Omphalocyclus	%	%
Caus & Cornella 1983	%	Cuneolina, Dictyopsella, Omphalocyclus	%	%
Caus et al. 1996	%	Orbitoides	%	%
Caus et al. 1996	%	Orbitoides, Omphalocyclus, Lepidorbitoides	%	%
Caus et al. 1996	%	Orbitoides, Omphalocyclus, Lepidorbitoides	%	%
Caus et al. 1996	%	Orbitoides, Lepidorbitoides	%	%
Cox 1937	%	Loftusia, Omphalocyclus macropora	%	%
Cox 1937	%	Omphalocyclus macropora	%	%
Cox 1937	%	Omphalocyclus macropora, Orbitoides cf. media	%	%
Dilley 1973	Table 2	%	%	%
Fleury 1977	Fig. 1	Omphalocyclus	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1985	Fig. 3	%	%	%
Fleury et al. 1990	Fig. 1	%	%	schlechte Abb.
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Fleury et al. 1990	%	%	%	%
Gaetani et al. 1980	Fig. 1	Omphalocyclus	grey silty marls, dark grey marly packstone; very shallow	comparable with present day low attitude Calcarina assemblage
Görmüs 1999	%	Orbitoides	%	%
Gowda 1964	Page 305	Lepidorbitoides, Nummofallotia, Orbitocyclina	%	%
Gowda 1964	Page 308	%	Limestone	%
Hagn 1971	Page 20	Orbitoides, Omphalocyclus	%	%
Hofker 1966	p.66;fig.42;tab.15	%	%	%
Hofker 1966	p.81;fig.51,1-7,fig. 52	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.84;fig.53,1-2,fig.95	%	%	%
Hofker 1966	fig.62	%	%	%
Hofker 1966	p.126,fig. 66	%	%	%
Hofker 1966	p.127,figs.75,76	%	%	%
Hofker 1966	p.130;figs.85,1;86	%	%	%
Hofker 1966	p.130,131;fig.85,4-7	%	%	%
Hofker 1966	p.133;figs.92,93	%	%	%
Hofker 1966	p.158;fig.85,8	%	%	%
Hofker 1966	p.158;fig.51,4;52	%	%	%
Hofker 1966	p.159;figs.96,1;97	%	%	%
Hofker 1966	p.159;figs.96,2;98	%	%	%
Hofker 1966	p.171;fig.99	%	%	%
Hofker 1966	p.171;fig.100	%	%	%
Hofker 1966	p.172;figs.101,102	%	%	%
Hofker 1966	p.173;figs.103,104	%	%	%
Hofker 1966	p.216;fig.112	%	%	%
Hofker 1966	p.275;fig.132	%	%	%
Hofker 1966	p.275;fig.133	%	%	%

Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		E.N.C.I. quarry, Lichtenberg section
Hofker 1966	Siderolites	laevigata	%	57	%	NLD	EFP	%		Kunrade-chalk
Hofker 1966	Siderolites	laevigata	%	57	Paleocene, Dano-Maastrichtian	NLD	EFP	%		Albert Canal, cutting of Caster and Vroenhover
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		cuarry Franssen-Nelissen
Hofker 1966	Siderolites	laevigata	%	57	%	NLD	EFP	%		Schieversberg, quarry Muyres and Bundersberg
Hofker 1966	Siderolites	laevigata	%	57	%	NLD	EFP	%		ce Tombe (37)
Hofker 1966	Siderolites	laevigata	%	57	%	NLD	EFP	%		t Rooth (38)
Hofker 1966	Siderolites	laevigata	%	57	%	NLD	EFP	%		E.N.C.I. quarry, Lichtenberg section (39)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		Well Fortress St. Pieter, drill-hole G.B. 194 (40)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		cuarry van der Zwaan (41)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		Valkenburg, municipal grotto (42)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		crill-hole Sibbe, G.B. 3621 (43)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		cuarry Curfs (44)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		keerderberg (45)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		Ravensbosch (46)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		cuarry Curfs, eastern section (47)
Hofker 1966	Siderolites	laevigata	%	30	Dano-Maastrichtian	BEL	EFP	%		Albert Canal, cutting of Vroenhoven, Belgium (48)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		cuarry Curfs, western section (50)
Hofker 1966	Siderolites	laevigata	%	30	Paleocene, Dano-Maastrichtian	BEL	EFP	%		Albert Canal, km 23.250 and km 23.650, Belgium (52)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		crill-hole Weert, G.B. 3670 (53)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		crill-hole Heisterbrug, S.M. XVIII (63)
Hofker 1966	Siderolites	laevigata	%	57	Paleocene, Dano-Maastrichtian	NLD	EFP	%		crill-hole Puth, S.M. XVI (64)
Hofker 1966	Siderolites	laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		crill-hole Geleen-Centrum, S.M. XVI (66)
Hofker 1966	Siderolites	cf. vidali	%	30	Dano-Maastrichtian	BEL	EFP	%		Albert Canal, cutting of Vroenhoven, Belgium (48)
Hofker 1966	Siderolites	cf. vidali	%	57	Dano-Maastrichtian	NLD	EFP	%		Welterberg, well I and well II (58)
Hofker 1966	Siderolites	calcitrapoides laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		mine shaft Maurits III (49)
Hofker 1966	Siderolites	calcitrapoides laevigata	%	57	Dano-Maastrichtian	NLD	EFP	%		Welterberg, well I and well II (58)
Hottinger 1966	Siderolithes	calcitrapoides	Lamarck	32	Maastrichtian	ESP	EFP	%		Montsech
Inan 1996a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%		Koyulhisar-Sivas
Ion 1975	Siderolites	calcitrapoides	%	41	early Maastrichtian	ROM	EFP	%		Risnov-vallée du Ghimbav.
Ion 1975	Siderolites	sp.	%	41	late Maastrichtian	ROM	EFP	%		Risnov-vallée du Ghimbav.
Kalantari 1976	Siderolites	sp.	%	56	Maastrichtian	IRN	AFP	24(1)		Sarvestan area, SW Iran
Kalantari 1976	Siderolites	calcitrapoides	%	56	Maastrichtian	IRN	AFP	26(2)		Sarvestan area, SW Iran
Kalantari 1976	Siderolites	calcitrapoides	Lamarck	56	Maastrichtian	IRN	AFP	27(14-15)		Sarvestan area, SW Iran
Kureshy 1977	Siderolites	calcitrapoides	(Lamarck)	46	Maastrichtian	PAK	ASP	%		Lakhi Range, Sind
Kureshy 1977	Siderolites	calcitrapoides	(Lamarck)	46	late Campanian - early Maastrichtian	PAK	ASP	%		Murree Brewery, Baluchistan
Kureshy 1977	Siderolites	calcitrapoides	(Lamarck)	46	late Campanian - early Maastrichtian	PAK	ASP	%		Hamai, Baluchistan
Kureshy 1977	Siderolites	calcitrapoides	(Lamarck)	46	early Maastrichtian	PAK	ASP	%		Hamai, Baluchistan
Kureshy 1980	Siderolites	calcitrapoides	(Lamarck)	46	Campanian-Maastrichtian	PAK	ASP	%		Pakistan
Loeblich & Tappan 1988	Siderolites	sp.	Lamarck	%	Maastrichtian	%	%	%		Europe, Mideast, India
Loeblich & Tappan 1988	Siderolites	calcitrapoides	Lamarck	57	Maastrichtian	NLD	EFP	783(1-8)		ENCI Quarry, Maastricht, Netherlands
Luperto Sinni 1966	Siderolites	sp.	%	35	late Senonian	ITA	EFP	%		Fulo di Altamura, Murge
Luperto Sinni 1968	Siderolites	sp.	%	35	Senonian	ITA	EFP	%		Murge
Mavrikas et al. 1994	Siderolites	sp.	%	36	early Maastrichtian	GRC	EFP	%		Ori Valtou
Mavrikas et al. 1994	Siderolites	calcitrapoides	Lamarck	36	late Maastrichtian	GRC	EFP	%		Ori Valtou
McGowran 1968	Siderolites	sp.	%	46	Maastrichtian	PAK	ASP	%		Sind, West Pakistan
McGowran 1968	Siderolites	sp.	%	44	Maastrichtian	IND	ASP	%		Trichinopoly district, South India
McGowran 1968	Siderolites	sp.	%	44	Maastrichtian	IND	ASP	%		Fondicherry district, South India
Meric et al. 1997	Siderolites	calcitrapoides	%	38	late Cretaceous	TUR	EFP	%		Southeast of Sereflikochisar, Tuzgölü Basin, Central Anatolia
Nagappa 1959	Siderolites	calcitrapoides	Lamarck	46	Maastrichtian	PAK	ASP	2(1)		Dunghan Range, Baluchistan
Nagappa 1959	Siderolites	calcitrapoides	Lamarck	45	Maastrichtian	IND	ASP	2(2)		near Cherrapunji, Khasi Hills, Assam
Nagappa 1959	Siderolites	calcitrapoides	Lamarck	44	Maastrichtian	IND	ASP	2(3)		Trichinopoly district; 10°49' N, 78°42' E
Nagappa 1959	Siderolites	calcitrapoides	Lamarck	46	Maastrichtian	PAK	ASP	%		Lakhi Range, Sind
Nagappa 1959	Siderolites	calcitrapoides	%	46	Maastrichtian	PAK	ASP	%		Quetta, Baluchistan
Nagappa 1959	Siderolites	calcitrapoides	%	46	Maastrichtian	PAK	ASP	%		Rakhi Nala, Sulaiman Range
Nagappa 1959	Siderolites	calcitrapoides	%	45	Maastrichtian	IND	ASP	%		central Assam
Neumann 1997	Siderolites	sp.	%	31	Campanian	FRA	EFP	%		Maurens (Dordogne, France)
Neumann 1997	Siderolites	sp.	%	32	%	ESP	EFP	%		Montsech (Rio Noguera Ribagorzana, Rio Noguera Pallaresa; Spain
Neumann 1997	Siderolites	praevidali	%	31	Campanian	FRA	EFP	%		rorthern Aquitaine
Neumann 1997	Siderolites	vidali	%	31	Campanian	FRA	EFP	%		rorthern Aquitaine
Neumann 1997	Siderolites	charentensis	%	31	Campanian	FRA	EFP	%		rorthern Aquitaine
Neumann 1997	Siderolites	praecalcitrapoides	%	31	early Maastrichtian	FRA	EFP	%		rorthern Aquitaine
Neumann 1997	Siderolites	sp.	%	31	Campanian	FRA	EFP	%		Gironde (between Mortagne and St. Palais, Pons); France
Neumann 1997	Siderolites	sp.	%	31	Campanian, Maastrichtian	FRA	EFP	%		Gironde, Bas-Adour, Chalosse, Petites-Pyrénées; France
Neumann 1997	Siderolites	sp.	%	57	Maastrichtian	NLD	EFP	%		ENCI, Saint-Pietersberg, south of Maastricht, Hollande
Neumann 1997	Siderolites	sp.	%	57	Maastrichtian	NLD	EFP	%		Curfs, north-east of Maastricht, Hollande
Neumann 1997	Siderolites	praevidali	Andreieff & Neumann	31	late Campanian	FRA	EFP	1(1-4,15-16)		Coupe du Rendos-La Brande (Charente-Maritime)
Neumann 1997	Siderolites	praevidali	Andreieff & Neumann	31	late Campanian	FRA	EFP	1(5-7,14)		Sondage d'Archiac (Charente-Maritime)
Neumann 1997	Siderolites	praevidali	Andreieff & Neumann	31	late Campanian	FRA	EFP	1(8,9)		Coupe Montgouverne (Charente-Maritime)
Neumann 1997	Siderolites	praevidali	Andreieff & Neumann	31	late Campanian	FRA	EFP	1(10,11,19)		Le Cailleau (Charente-Maritime)
Neumann 1997	Siderolites	praevidali	Andreieff & Neumann	31	late Campanian	FRA	EFP	1(12,13,17,18)		Mirambeau (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	2(1,5,6)		Sondage d'Archiac (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	2(2-4)		Coupe Montgouverne (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	2(7-10)		Le Cailleau (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	2(11-13)		Brie-sous-Archiac (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	2(14,16)		Aubeterre (Charente)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	2(15)		Meschers (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	3(1,2)		Bazan, Falaise du Pilou (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	3(3)		Fort-Maran (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	3(4,5)		Le Cailleau (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	3(6)		Le Buisson (Dordogne)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	3(10,11)		Aubeterre (Charente)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	3(12-13)		Bazac (Charente)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	3(14-16)		Coupe de Beaumont-du-Périgord (Dordogne)
Neumann 1997	Siderolites	vidali	Douvillé	32	late Campanian	ESP	EFP	3(7,-9)		Montsech, Espagne
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	4(1-2)		Sondage d'Archiac (Charente-Maritime)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	4(3-8)		Coupe Montgouverne (Charente-Maritime)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	4(9,10)		Brie-sous-Archiac (Charente-Maritime)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	4(11-14)		Meschers (Charente-Maritime)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	4(15)		Aubeterre (Charente)

Hofker 1966	p.81;fig.51,1-7,fig. 52	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.84;fig.53,1-2,fig.95	%	%	%
Hofker 1966	p.130;figs.85,1;86	%	%	%
Hofker 1966	p.130,131;fig.85,4-7	%	%	%
Hofker 1966	p.133;figs.92,93	%	%	%
Hofker 1966	p.158;fig.85,8	%	%	%
Hofker 1966	p.158;fig.51,4;52	%	%	%
Hofker 1966	p.159;figs.96,1;97	%	%	%
Hofker 1966	p.159;figs.96,2;98	%	%	%
Hofker 1966	p.171;fig.99	%	%	%
Hofker 1966	p.171;fig.100	%	%	%
Hofker 1966	p.172;figs.101,102	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	%	%	%	%
Hofker 1966	p.201;fig.105.1,107	%	%	%
Hofker 1966	p.215;figs.101.1,102	%	%	%
Hofker 1966	p.215;figs.105.1,2;106,107	%	%	%
Hofker 1966	p.216;fig.112	%	%	%
Hofker 1966	p.275;fig.132	%	%	%
Hofker 1966	p.275;fig.133	%	%	%
Hofker 1966	p.276;fig.135	%	%	%
Hofker 1966	p.201;fig.105.1,107	%	%	%
Hofker 1966	p.274;figs.124,125	%	%	%
Hofker 1966	p.214	%	%	%
Hofker 1966	p.274;figs.124,125	%	%	%
Hottinger 1966	Fig. 2	Omphalocyclus macropora, Orbitoides media	calcaires gréseux très durs à conglomérats intraformationels	%
Inan 1996a	Fig. 1	%	Limestone; Back reef	%
Ion 1975	Fig. 1	Orbitoides (media, cf. apiculata, cf. tissoti), Lepidorbitoides (minor, socialis); Globotruncana gansseri	%	%
Ion 1975	Fig. 1	Lepidorbitoides socialis, Orbitoides, Siderolites, Omphalocyclus; Abathomphalus mayaroens	%	%
Kalantari 1976	Fig. 1	Omphalocyclus macroporus	marly limestone	Loftusia minor & harrisoni zone
Kalantari 1976	Fig. 1	%	microcrystalline limestone	Loftusia minor & harrisoni zone
Kalantari 1976	Fig. 1	%	%	Loftusia minor & harrisoni zone
Kureshy 1977	Fig. 1	Orbitoides, Omphalocyclus, Sulcoperculina	%	Orbitoides media zone
Kureshy 1977	Fig. 1	Lepidorbitoides, Orbitoides, Omphalocyclus, Sulcoperculina	Carbonate facies	%
Kureshy 1977	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Sulcoperculina	hard massive, splintry, light brown in color; Carbonate facies	%
Kureshy 1977	Fig. 1	Omphalocyclus, Orbitoides, Sulcoperculina, Lepidorbitoides	%	Orbitoides media zone
Kureshy 1980	Page 94	Orbitoides, Lepidorbitoides, Omphalocyclus, Sulcoperculina	%	%
Loeblich & Tappan 1988	%	%	%	%
Loeblich & Tappan 1988	%	%	%	%
Luperto Sinni 1966	%	%	limestones	%
Luperto Sinni 1968	%	Nummofallotia, Cuneolina, Dictyopsella, Rhapydionina, Rhipidionina	white bedded Rudist limestone; neritic, shallow, temperate-warm	%
Mavrikas et al. 1994	Fig. 1	Orbitoides	bioclastic limestone; plate-forme externe où, par exception, les influences de la mer ouverte et de la plate-forme protégée se mêlent	%
Mavrikas et al. 1994	Fig. 1	Sirtina, Pseudedomia, Orbitoides, Lepidorbitoides, Hellenocyclina	limestones with large rudists; plate-forme externe	%
McGowran 1968	%	Omphalocyclus, Lepidorbitoides	%	%
McGowran 1968	%	%	%	%
McGowran 1968	%	%	%	%
Meric et al. 1997	%	Loftusia, Orbitoides, Omphalocyclus, Hellenocyclina, Lepidorbitoides	%	%
Nagappa 1959	Page 178	Omphalocyclus	%	%
Nagappa 1959	Page 178	%	sandy ferruginous limestone	%
Nagappa 1959	Page 178	Lepidorbitoides	brown impure limestone	%
Nagappa 1959	Txt-fig. 2	Orbitoides, Omphalocyclus; Globigerina, Guembelina	light-coloured massive or thick-bedded limestones, becoming sandy toward the top; deposition on the continental shelf in warm, shallow, sometimes sheltered waters of the inner neritic environment	maximum thickness 320'+; base not exposed
Nagappa 1959	Txt-fig. 2	Omphalocyclus, Orbitoides	shelf deposits in shallow inner neritic environments	%
Nagappa 1959	Txt-fig. 2	Omphalocyclus, Orbitoides	%	%
Nagappa 1959	%	Orbitoides; Globotruncana stuarti, Guembelina plummerae	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
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Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	%
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites

Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	5(1)	Mirambeau (Charente-Maritime)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	5(2)	Montgouverne (Charente-Maritime)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	5(3)	Port-Maran (Charente-Maritime)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	5(4)	Le Buisson (Dordogne)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	5(5-6,12)	Coupe Aubeterre (Charente)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	5(7-8)	Bazac (Charente)
Neumann 1997	Siderolites	charentensis	Neumann	32	late Campanian	ESP	EFP	5(9-11)	Montsech (Espagne)
Neumann 1997	Siderolites	charentensis	Neumann	31	early Maastrichtian	FRA	EFP	5(13)	Maurens (Dordogne), sondage du Bost
Neumann 1997	Siderolites	praevidali	Andreieff & Neumann	31	late Campanian	FRA	EFP	6(1-3)	Le Renclos (Charente-Maritime)
Neumann 1997	Siderolites	praevidali	Andreieff & Neumann	31	late Campanian	FRA	EFP	6(4)	Mirambeau (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	6(5,7)	Le Cailleau (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	6(6)	Montgouverne (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	6(8)	Brie-sous-Archiac (Charente-Maritime)
Neumann 1997	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	6(9)	Beaumont-du-Périgord (Dordogne)
Neumann 1997	Siderolites	vidali	Douvillé	32	late Campanian	ESP	EFP	6(10)	Montsech (Espagne)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	6(11)	Le Buisson (Dordogne)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	6(12)	Beaumont-du-Périgord (Dordogne)
Neumann 1997	Siderolites	charentensis	Neumann	31	late Campanian	FRA	EFP	6(13-14)	Meschers (Charente-Maritime)
Neumann 1993	Siderolites	praevidali	%	31	late Campanian	FRA	EFP	%	Aquitaine septentrionale
Neumann 1993	Siderolites	charentensis	%	31	late Campanian	FRA	EFP	%	Aquitaine septentrionale
Neumann 1993	Siderolites	vidali	%	31	late Campanian	FRA	EFP	%	Aquitaine septentrionale
Neumann 1993	Siderolites	praevidali	%	32	Campanian	ESP	EFP	%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Siderolites	charentensis	%	32	Campanian	ESP	EFP	%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Siderolites	vidali	%	32	Campanian	ESP	EFP	%	Rio Noguera Ribacorzana (Montsech)
Neumann 1993	Siderolites	vidali	%	59	Campanian	AUT	EFP	%	Silberegg I, Alpes Carniques
Neumann 1993	Siderolites	vidali	%	71	Campanian	SVK	EFP	%	W. Carpathes, Tchécoslovaquie
Neumann 1993	Siderolites	praecalcitrapoides	%	31	early Maastrichtian	FRA	EFP	%	Maurens (Dordogne)
Neumann 1993	Siderolites	vidali	%	31	early Maastrichtian	FRA	EFP	%	Maurens (Dordogne)
Neumann 1993	Siderolites	charentensis	%	31	early Maastrichtian	FRA	EFP	%	Maurens (Dordogne)
Neumann 1993	Siderolites	vidali	%	31/32	Maastrichtian	FRA/ESP	EFP	%	plate-formes E pyrénéennes
Neumann 1993	Siderolites	aff. denticulatus	%	31/32	Maastrichtian	FRA/ESP	EFP	%	plate-formes E pyrénéennes
Neumann 1993	Siderolites	calcitrapoides	%	31/32	Maastrichtian	FRA/ESP	EFP	%	plate-formes E pyrénéennes
Neumann 1993	Siderolites	praecalcitrapoides	%	32	Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Siderolites	calcitrapoides	%	32	Maastrichtian	ESP	EFP	%	Montsech
Neumann 1993	Siderolites	calcitrapoides	%	59	Maastrichtian	AUT	EFP	%	Pemberger IV, Alpes Carniques
Neumann 1993	Siderolites	calcitrapoides	%	71/74	Maastrichtian	SVK/CZE	EFP	%	Tchécoslaviquie
Özcan 1993	Siderolites	calcitrapoides	Lamarck	38	middle-late Maastrichtian	TUR	EFP	%	north-east Kahta region; Arabian Plate
Özcan 1993	Siderolites	calcitrapoides	%	38	middle-late Maastrichtian	TUR	EFP	fig.3g	north-east Kahta region; Arabian Plate
Özcan 1993	Siderolites	denticulatus	%	38	middle-late Maastrichtian	TUR	EFP	fig.3i	north-east Kahta region; Arabian Plate
Özcan 1993	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	north-east Kahta region; Arabian Plate
Özcan & Özkan-Altiner 1997	Siderolites	sp.	%	38	Maastrichtian	TUR	EFP	%	1 km SW of Yesilyurt village
Özcan & Özkan-Altiner 1997	Siderolites	sp.	%	38	Maastrichtian	TUR	EFP	%	near Saridegirmen village about 10 km NW of Haymana
Özcan & Özkan-Altiner 1997	Siderolites	sp.	%	38	Maastrichtian	TUR	EFP	%	500 m SE of the Kartalkaya Hill
Özcan & Özkan-Altiner 1997	Siderolites	sp.	%	38	Maastrichtian	TUR	EFP	%	SE of Haymana
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	east of Cide, N-Turkey
Özcan & Özkan-Altiner 1999a	Siderolites	calcitrapoides	%	38	%	TUR	EFP	%	Haymana region
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)

Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	Wannier: Praesiderolites
Neumann 1997	%	%	%	%
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Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Neumann 1993	%	%	%	%
Özcan 1993	%	Orbitoides, Omphalocyclus, Loftusia	rudistid, massive and friable sands	%
Özcan 1993	%	Orbitoides, Omphalocyclus, Lepidorbitoides, Loftusia, Siderolites	rudistid, sandy bioclastic carbonate facies	%
Özcan 1993	%	Orbitoides, Omphalocyclus, Lepidorbitoides, Loftusia, Siderolites	rudistid, sandy bioclastic carbonate facies	%
Özcan 1993	%	Orbitoides, Loftusia	marls and siltstones	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Omphalocyclus, Lepidorbitoides	friable sandstone; shallow-water carbonate and clastica	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Hellenocyclina	bioclastic horizon; shallow-water carbonate and clastica	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Hellenocyclina	sandstone horizon; transition between deep-marine shale and marl and turbiditic shale-marl and carbonates	%
Özcan & Özkan-Altiner 1997	Fig. 1	Orbitoides, Lepidorbitoides, Loftusia, Hellenocyclina, Sirtina, Omphalocyclus	nodular, friable limy sandstone and sandy limestone beds	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999a	Page 115, Fig.3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Hellenocyclina	%	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides	%	G. aegyptiaca zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	G. gansseri zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone

Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maestrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	Maestrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	Maestrichtian	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	calcitrapoides	%	38	%	TUR	EFP	%	Cide area (NW Black Sea coast)
Özcan & Özkan-Altiner 1999b	Siderolites	denticulatus	%	38	%	TUR	EFP	%	Cide area (NW Black Sea coast)
Özkan-Altiner & Özcan 1999	Siderolites	calcitrapoides	%	38	Maestrichtian	TUR	EFP	%	Cide region
Papp 1954	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	%	Silberegg SW of Guttaring, Kärnten
Papp 1954	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP		Steinbruch Wietersdorfer Zementfabrik, Pemberger Riegel, oberhalb Bergstation
Papp 1954	Siderolites	?vidali	Douvillé	59	Campanian	AUT	EFP	%	N. Gehöft Pemberger, am Waldrand
Papp 1954	Siderolites	calcitrapoides	%	57	Maestrichtian	NLD	EFP	%	Maastricht
Papp 1954	Siderolites	calcitrapoides	%	59	Maestrichtian	AUT	EFP	%	Flysch bei Wien, Gosau bei Grünbach
Papp 1954	Siderolites	calcitrapoides	%	31	Maestrichtian	FRA	EFP	%	Gensac
Papp 1954	Siderolites	calcitrapoides	%	37	Maestrichtian	YUG	EFP	%	Fruska-Gora
Papp 1955b	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	%	Unter-Kirchwaldberg, S Guttaring
Papp 1955b	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	%	Steinbruch Pembergerriegel (II)
Papp 1955b	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	%	nördlich Gehöft Pemberger (III)
Papp 1955b	Siderolites	calcitrapoides	Lamarck	59	Campanian	AUT	EFP	%	Pemberger (IV)
Papp 1955c	Siderolites	calcitrapoides	Lamarck	59	Maestrichtian	AUT	EFP	3(4)	krampen
Papp 1956a	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	%	Gmunden, O vom Traunsee, Graben Flohberg, W-Seite Ober-Österreich
Papp & Küpper 1953b	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	1(6);3(1,3)	Silberegg, Steinbruch
Papp & Küpper 1953b	Siderolites	calcitrapoides	Lamarck	59	%	AUT	EFP	1(7)	Pemberger
Papp & Küpper 1953b	Siderolites	vidali	Douvillé	59	Campanian	AUT	EFP	3(2)	Unter-Kirchwaldberg
Pfender 1935	Siderolites	denticulatus	Douvillé	57	Maestrichtian	NLD	EFP	11(1,2)	Fauquemont près Maestricht
Pfender 1935	Siderolites	vidali	Douvillé	32	Maestrichtian	ESP	EFP	11(3-5)	Espluga, environs d'Aren (province de Barcelone)
Pfender 1935	Siderolites	vidali	Douvillé	58	%	CHE	EFP	12(1-5)	Niesenflysch, Pic Chaussy, Canton de Vaud (Suisse)
Renz 1936	Siderolites	calcitrapoides	Lamarck	58	Maestrichtian	CHE	EFP	29(1,2); 31(1,3); 32(3,4); 33(4)	Alfermée am Bielersee
Renz 1936	Siderolites	calcitrapoides	%	31	late Cretaceous	FRA	EFP	%	Frankreich
Renz 1936	Siderolites	calcitrapoides	%	57	late Cretaceous	NLD	EFP	%	Holland
Renz 1936	Siderolites	calcitrapoides	%	36	late Cretaceous	GRC	EFP	%	Griechenland, Rhodos
Renz 1936	Siderolites	calcitrapoides	%	69	late Cretaceous	ZYP	EFP	%	Cypern
Renz 1936	Calcarina	sp.	%	31	Senonian	FRA	EFP	%	Méaudre bei Grenoble
Sartorio & Venturini 1988	Siderolites	calcitrapoides	Lamarck	34	Maastrichtian	ITA	EFP	Page 125	Termini Imerese, Sicily
Sartorio & Venturini 1988	Siderolites	calcitrapoides	Lamarck	25	Maastrichtian	YEM	AFP	Page 127	Ras Fartaq, P.D.R. of Yemen
Sartorio & Venturini 1988	Siderolites	calcitrapoides	Lamarck	35	Maastrichtian	ITA	EFP	Page 129	Madonna della Croce 2 well, Abruzzo
Sartorio & Venturini 1988	Siderolites	calcitrapoides	Lamarck	34	Maastrichtian	ITA	EFP	Page 129	Termini Imerese, Sicily
Sartorio & Venturini 1988	Siderolites	calcitrapoides	Lamarck	25	Maastrichtian	YEM	AFP	Page 129	Ras Fartaq, P.D.R. of Yemen
~~Seiglie & Ayala-Castanares 1963~~	~~Siderolites~~	~~vanbelleni~~	~~(van den Bold)~~	~~1~~	~~Maastrichtian~~	~~CUB~~	~~CFP~~	~~%~~	~~Cantera Penalver, en el tramo de la Via Monumental entre la Via Blanca y la Carretera Central, Prov. La Habana~~
~~Seiglie & Ayala-Castanares 1963~~	~~Siderolites~~	~~skourensis (?)~~	~~(Pfender)~~	~~1~~	~~Campanian (?) to Maastrichtian~~	~~CUB~~	~~CFP~~	~~%~~	~~Cantera Penalver, en el tramo de la Via Monumental entre la Via Blanca y la Carretera Central, Prov. La Habana~~
Séronie-Vivien 1972	Siderolites	sp.	%	31	Santonian	FRA	EFP	%	Saintes Chateau d'eau
Séronie-Vivien 1972	Siderolites	sp.	%	31	Santonian	FRA	EFP	%	Les Charriers
Séronie-Vivien 1972	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	%	Saint-palais-du-né
Séronie-Vivien 1972	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	%	Route de Saint-Martial
Séronie-Vivien 1972	Siderolites	vidali	Douvillé	31	Maastrichtian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Siderolites	vidali	Douvillé	31	Maastrichtian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Siderolites	vidali	Douvillé	31	Campanian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Siderolites	sp.	%	31	Campanian	FRA	EFP	%	Aubeterre
Séronie-Vivien 1972	Siderolites	denticulatus	%	31	Maastrichtian	FRA	EFP	%	Lamerac
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	Lamerac
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	La Guerie
Séronie-Vivien 1972	Siderolites	denticulatus	%	31	Maastrichtian	FRA	EFP	%	Barret
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	Barret
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	La maison neuve
Séronie-Vivien 1972	Siderolites	denticulatus	%	31	Maastrichtian	FRA	EFP	%	Le Caillaud
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	Le Caillaud
Séronie-Vivien 1972	Siderolites	vidali	%	31	Campanian	FRA	EFP	%	Le Caillaud
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	Flage des nonnes
Séronie-Vivien 1972	Siderolites	sp.	%	31	Santonian	FRA	EFP	%	Fuy le versac
Séronie-Vivien 1972	Siderolites	sp.	%	31	Campanian	FRA	EFP	%	Mensiganc
Séronie-Vivien 1972	Siderolites	vidali	%	31	Campanian	FRA	EFP	%	La valade
Séronie-Vivien 1972	Siderolites	sp.	%	31	Maastrichtian	FRA	EFP	%	Noaillac
Séronie-Vivien 1972	Siderolites	vidali	%	31	Maastrichtian	FRA	EFP	%	Neuvic
Séronie-Vivien 1972	Siderolites	vidali	%	31	Campanian	FRA	EFP	%	Grande cote
Séronie-Vivien 1972	Siderolites	sp.	%	31	Campanian	FRA	EFP	%	Journiac, route du Dognon
Séronie-Vivien 1972	Siderolites	sp.	%	31	Maastrichtian	FRA	EFP	%	Route de Beaumont à Saint-Avit
Séronie-Vivien 1972	Siderolites	sp.	%	31	Campanian	FRA	EFP	%	Route de Beaumont à Saint-Avit
Sirel 1991	Siderolites	heracleae	Arni	38	late Turonian-middle Campanian	TUR	EFP	%	Kepesköy tepe, 6 km east of Eregli
Sirel 1991	Siderolites	calcitrapoides	Lamarck	38	late Maastrichtian	TUR	EFP	%	Cide region
Sirel 1996	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Haymana basin, S of Ankara
Sirel 1996	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Dündarli area, SW of Kayseri, Central Turkey
Sirel 1996	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Gölköy town, S of Ordu, Northern Turkey
Sirel 1996	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Feyamli hill, 8 km north of Dündarli town, SW of Kayseri
Sirel 1996	Siderolites	calcitrapoides	%	38	Maastrichtian	TUR	EFP	%	Caldag anticline, Ahirlikuyu village, 4 km west of Haymana town, S of Ankara
van Gorsel 1973a	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	%	SE of Aubeterre
van Gorsel 1973b	Siderolites	vidali	Douvillé	31	late Campanian	FRA	EFP	1(1)	Aubeterre section, Charente
van Gorsel 1973b	Siderolites	vidali	Douvillé	31	%	FRA	EFP	3(1)	3 km south of Chalais
Visser 1951	Siderolites	calcitrapoides	%	33	late Cretaceous	DEU	EFP	%	Oberbayerische Alpen
Visser 1951	Siderolites	calcitrapoides	%	34	late Cretaceous	CHE	EFP	%	Helvetian Nappes, Bielersee, Switzerland
Visser 1951	Siderolites	calcitrapoides	%	35	late Cretaceous	ITA	EFP	%	Appenines, Italy
Visser 1951	Siderolites	calcitrapoides	%	36	late Cretaceous	GRC	EFP	%	Leukas, Greece
Visser 1951	Siderolites	calcitrapoides	%	57	Maastrichtian	NLD	EFP	%	South-Limburg, Holland
Visser 1951	Siderolites	calcitrapoides	Lamarck	57	Maastrichtian	NLD	EFP	7(16)	Burgerwacht-quarry, St. Pietersberg
Visser 1951	Siderolites	calcitrapoides	Lamarck	57	Maastrichtian	NLD	EFP	10(4)	Burgerwacht-quarry, St. Pietersberg
Visser 1951	Siderolites	calcitrapoides	Lamarck	57	Maastrichtian	NLD	EFP	10(5)	Geulvalley near Geulhem on the south-side of the parth Valkenburg-Geulhem on the turning to Berg
Wannier 1980	Siderolites	denticulatus	Douvillé	31	Maastrichtian	FRA	EFP	1(9); 4(1-2)	Gensac (St-Marcet, Haute Garonne)
Wannier 1980	Siderolites	calcitrapoides	Lamarck	57	Maastrichtian	NLD	EFP	4(3-7)	carrière ENCI, Maastricht
Wannier 1983	Siderolites	cataluniensis	n. sp.	32	Maastrichtian	ESP	EFP	4(9,11,12); 6(9-13)	Castillo, près de Talam, Tremp, Catalogne
Wannier 1983	Siderolites	calcitrapoides	Lamarck	57	Maastrichtian	NLD	EFP	5(1-7); 7(1-6,8)	ENCI, Maastricht
Wannier 1983	Siderolites	denticulatus	Douvillé	31	Maastrichtian	FRA	EFP	5(8-14); 7(7,8,10)	St. Marcet
Weiss 1993	Siderolites	calcitrapoides	%	46	early late Maastrichtian	PAK	ASP	%	Murrey Brewery Gorge section, Sulaiman Range, Northern Pakistan
Wen 1987	Siderolites	calcitrapoides	%	46	Maastrichtian	PAK	ASP	%	Sind, Baluchistan
Wen 1987	Siderolites	calcitrapoides	%	45	Maastrichtian	IND	ASP	%	Khasi and Jaintia hills of the Shillong Plateau
Willems et al. 1996	Siderolites	calcitrapoides	%	48	late Maastrichtian	CHN	ASP	%	Tingri area, Tibet
Zambetakis-Lekkas 1988	Siderolites	calcitrapoides	%	36	late Campanian-early Maastrichtian	GRC	EFP	%	Coupe de Kamenitsa

Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Clypeorbis, Hellenocyclina	%	A. mayaroensis zone
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Hellenocydina	%	%
Özcan & Özkan-Altiner 1999b	Fig. 3	Orbitoides, Lepidorbitoides, Omphalocyclus, Sirtina, Hellenocydina	%	%
Özkan-Altiner & Özcan 1999	Fig. 1	Globotruncana aegyptiaca	%	%
Papp 1954	%	Pseudorbitoides, Orbitoides	%	%
Papp 1954	%	Orbitoides, Pseudorbitoides	%	%
Papp 1954	%	Lepidorbitoides	%	%
Papp 1954	%	Lepidorbitoides	%	%
Papp 1954	%	Lepidorbitoides	%	%
Papp 1954	%	Lepidorbitoides	%	%
Papp 1954	%	Lepidorbitoides	%	%
Papp 1955b	Fig. 1	Orbitoides tissoti, Pseudorbitoides longispiralis	%	%
Papp 1955b	Fig. 1	Orbitoides (tissoti, media), Pseudorbitoides trechmanni, Lepidorbitoides minima	grobsandig bis feinkörnige Konglomerate mit kalkigem Bindemittel	%
Papp 1955b	Fig. 1	Orbitoides media, Lepidorbitoides minima	%	%
Papp 1955b	Fig. 1	Orbitoides (tissoti, media, jaegeri), Lepidorbitoides bisambergensis	%	%
Papp 1955c	%	%	Orbitoidenkalke	%
Papp 1956a	%	Orbitoides tissoti, "Pseudorbitoides"	grober Sandstein	%
Papp & Küpper 1953b	%	%	%	%
Papp & Küpper 1953b	%	%	%	%
Papp & Küpper 1953b	%		%	%
Pfender 1935	%	%	%	%
Pfender 1935	%	%	%	%
Pfender 1935	%	%	%	%
Renz 1936	Renz 1936: p.545	%	%	Syn.: Calcarina calcitrapoides
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Renz 1936	%	%	%	%
Sartorio & Venturini 1988	%	Orbitoides	%	%
Sartorio & Venturini 1988	%	Lepidorbitoides, Orbitoides, Pseudedomia	%	%
Sartorio & Venturini 1988	%	%	%	%
Sartorio & Venturini 1988	%	%	%	%
Sartorio & Venturini 1988	%	Orbitoides, Lepidorbitoides	%	%
~~Seiglie & Ayala-Castanares 1963~~	~~Page 14~~	~~Omphalocyclus, Asterorbis, Vaughanina, Sulcoperculina~~	~~Calcirudita, deleznable, arcillosa, color gris claro~~	~~%~~
~~Seiglie & Ayala-Castanares 1963~~	~~Page 14~~	~~Omphalocyclus, Asterorbis, Vaughanina, Sulcoperculina~~	~~Calcirudita, deleznable, arcillosa, color gris claro~~	~~%~~
Séronie-Vivien 1972	Page 37	Nummofallotia	calcaire gris beige marneux, d'aspect finement gréseux	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.38	Dictyopsella, Nummofallotia	Calcaire beige blanchâtre, avec silex	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.48	Dictyopsella, Nummofallotia	Calcaire gris blanchâtre, marneux	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.49	Dictyopsella, Nummofallotia	Calcaire gris blanchâtre	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.54	Dictyopsella, Nummofallotia	Calcaire tuffacé beige jaunâtre	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.54	Dictyopsella, Nummofallotia, Orbitoides	Calcaire marneux, gris blanchâtre, glauconieux	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.54	Orbitoides	Calcaire tuffacé à Ostracées, calcaire marneux	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.54	Dictyopsella	Calcaire grisâtre marneux, avec lits de silex	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.54	Dictyopsella	Calcaire grisâtre marneux, avec lits de silex	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.55	Dictyopsella, Nummofallotia, Orbitoides	Calcaire jaune, très friable	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.55	Dictyopsella, Nummofallotia, Orbitoides	Calcaire jaune, très friable	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.56	Nummofallotia, Orbitoides	Marnes légèrement glauconieuses	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.57	Nummofallotia, Orbitoides	Calcaire marneux blanc jaunâtre	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.57	Nummofallotia, Orbitoides	Calcaire marneux blanc jaunâtre	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.58	Dictyopsella, Nummofallotia, Orbitoides	Marne calcaire jaune blanchâtre	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.69	Nummofallotia, Orbitoides	%	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.69	Nummofallotia, Orbitoides	%	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.69	Dictyopsella	Calcaire blanchâtre en bancs avec quelques silex	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.72	Dictyopsella, Nummofallotia, Orbitoides	Calcaire tuffacé jaune clair	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.79	Nummofallotia	Calcaire noduleux marneux, finement gréseux, glauconieux et marnes sableuses glauconieuses	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.81	%	Calcaire marneux á silex alternant avec des niveaux plus tendres	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.91	Nummofallotia	Calcaire micritique à bioclastes, spicules, glauconie	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.93	Orbitoides	Calcaire biocl., grav., glauc.	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.94	Dictyopsella, Nummofallotia, Orbitoides	Calcaire crayeux, blanc, lité, niveaux de silex	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.103	Nummofallotia	Calcaire bioclastique, pelletique, glauconieux	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.106	%	Calcaire bioclastique, graveleux, gréseux	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.124	%	Calcaire bioclastique graveleux	%
Séronie-Vivien 1972	Séronie-Vivien 1972: p.124	%	Calcaire bioclastique, à gravelles	%
Sirel 1991	%	%	%	%
Sirel 1991	Sirel 1991: fig.1	Sirtina, Omphalocyclus, Hellenocyclina, Lepidorbitoides, Orbitoides, Navarella	light gray limestone, green and dark red siltstone, tuffit intercalation	%
Sirel 1996	Sirel 1996: fig.1	Loftusia, Laffitteina, Hellenocyclina, Orbitoides, Sirtina	Sandstone, sandy limestone, argillaceous limestone	%
Sirel 1996	Sirel 1996: fig.1	Omphalocyclus, Loftusia, Hellenocyclina, Orbitoides, Laffitteina	Sandy limestone, Marl, argillaceous limestone	%
Sirel 1996	Sirel 1996: fig.1	Omphalocyclus, Hellenocyclina, Orbitoides	limestones	%
Sirel 1996	Sirel 1996: fig.1	Loftusia, Laffitteina, Hellenocyclina, Orbitoides, Omphalocyclus	limestone; shallow water	%
Sirel 1996	Sirel 1996: fig.1	Omphalocyclus, Laffitteina, Hellenocyclina, Orbitoides, Sirtina	limestone; shallow water	%
van Gorsel 1973a	van Gorsel 1973a: figs. 1,2	Lepidorbitoides, Orbitoides, Nummofallotia	%	%
van Gorsel 1973b	van Gorsel 1973b: p.275	%	%	%
van Gorsel 1973b	van Gorsel 1973b: p.280	%	%	%
Visser 1951	Visser 1951: p.276	%	%	%
Visser 1951	Visser 1951: p.276	%	%	%
Visser 1951	Visser 1951: p.276	%	%	%
Visser 1951	Visser 1951: p.276	%	%	%
Visser 1951	Visser 1951: p.276	%	%	upper part of Mb-Md
Visser 1951	Visser 1951: p.204	%	yellowrather soft marl	%
Visser 1951	Visser 1951: p.204	%	somewhat darker yellow fossil-waste-bed	%
Visser 1951	Visser 1951: p.205	%	yellowvery soft marl	%
Wannier 1980	%	Orbitoides apiculata	%	zone of Orbitoides apiculata
Wannier 1980	%	Orbitoides apiculata	%	zone of Orbitoides apiculata
Wannier 1983	%	%	%	%
Wannier 1983	%	%	%	%
Wannier 1983	%	%	%	%
Weiss 1993	Weiss 1993: fig. 1	Orbitoides	Limestone	Siderolites calcitrapoides - Orbitoides media Assemblage
Wen 1987	%	Orbitoides media, Omphalocyclus macroporus; Globotruncana stuarti	limestone and calcareous shals with sandy limestone in the upper part	%
Wen 1987	%	Orbitoides; Globotruncana stuarti	calcareous mudstone	%
Willems et al. 1996	%	Omphalocyclus macroporus	%	%
Zambetakis-Lekkas 1988	Fig. 1	%	%	%

13.3 Localities

In this appendix all authors are listed related to the locations where they have worked and the related Faunal Province (Caribbean FP: CFP; Asian FP: ASP; European FP: ESP; African FP: AFP).

1) **Cuba [CUB; CFP]:** Palmer, 1934; Vaughan and Cole, 1943; Caudri, 1944; Brönnimann, 1954; Küpper, 1954a, 1954b; Brönnimann, 1955; Renz, 1955; Brönnimann, 1957, 1958a; Hanzawa, 1962; Ayala-Castanares, 1963; Seiglie and Ayala-Castanares, 1963; Hottinger, 1966; Ellis and Messina, 1967; Krijnen, 1972; Dilley, 1973; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988; de Castro, 1990; Neumann, 1993; Ismail and Boukhary, 2001
2) **Florida [F-USA; CFP]:** Küpper, 1954a; Brönnimann, 1954, 1957, 1958b; Ellis and Messina, 1967; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988; Neumann, 1993; Ismail and Boukhary, 2001
3) **S-Mexico [S-MEX; CFP]:** Ayala-Castanares, 1963; Butterlin, 1967; Myers, 1968; Robinson, 1968; Dilley, 1973; Pécheux, 1984; de Castro, 1990; Rosales Dominguez et al., 1994
4) **Louisiana, Mississippi [L-USA, M-USA; CFP]:** Vaughan and Cole, 1943; Brönnimann, 1957; Seiglie and Ayala-Castanares, 1963; Loeblich and Tappan, 1988
5) **Texas [T-USA; CFP]:** Frizzell, 1954; Brönnimann, 1957, 1958b; Loeblich and Tappan, 1988
6) **Jamaica [JAM; CFP]:** Vaughan and Cole, 1943; Brönnimann, 1955; Robinson, 1968; Krijnen, 1972; Dilley, 1973; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988; Gunter et al., 2002
7) **Haiti [HTI; CFP]:** Brönnimann, 1955, 1957; Seiglie and Ayala-Castanares, 1963; Butterlin, 1967; Loeblich and Tappan, 1988
8) **Honduras [HND; CFP]:** Brönnimann, 1957; Seiglie and Ayala-Castanares, 1963
9) **Guatemala [GTM; CFP]:** Brönnimann, 1954, 1955, 1957, 1958b; Ellis and Messina, 1967; de Castro, 1971; Hamaoui and Fourcade, 1973; Loeblich and Tappan, 1988
10) **Venezuela [VEN; CFP]:** Caudri, 1944, 1948; Brönnimann, 1954, 1955; Renz, 1955; Seiglie and Ayala-Castanares, 1963; Ellis and Messina, 1967; Loeblich and Tappan, 1988; Neumann, 1993
11) **Colombia [COL; CFP]:** Caudri, 1948
12) **Puerto Rico [PR-USA; CFP]:** Brönnimann, 1957; Pessagno, 1962; Seiglie and Ayala-Castanares, 1963
13) **Dutch West Indies [DWI; CFP]:** Caudri, 1944, 1948; Brönnimann, 1954, 1955; Ellis and Messina, 1967; Krijnen, 1967, 1972
14) **Veracruz [V-MEX; CFP]:** Brönnimann, 1954; Butterlin, 1967; Ellis and Messina, 1967
15) **Morocco [MAR; AFP]:** Fleury et al., 1985
16) **Algeria [DZA; AFP]:** Schlumberger and Choffat, 1904; Ellis and Messina, 1967; Hamaoui and Fourcade, 1973; Fleury et al., 1985; de Castro, 1990; Neumann, 1993; Caus et al., 1996; Ismail and Boukhary, 2001
17) **Tunisia [TUN; AFP]:** Renz, 1936; Ellis and Messina, 1967; Hamaoui and Fourcade, 1973; Fleury et al., 1985; Loeblich and Tappan, 1988
18) **Libya [LBY; AFP]:** Brönnimann and Wirz, 1962; Ellis and Messina, 1967; Fleury et al., 1985; Loeblich and Tappan, 1988; de Castro, 1990; LeBlanc, 2000; Ismail and Boukhary, 2001
19) **Mauritania [MRT; AFP]:** Loeblich and Tappan, 1988

20) **Egypt [EGY; AFP]:** de Castro, 1990; Ismail and Boukhary, 2001
21) **Bahamas [BHS; CFP]:** Kureshy, 1980
22) **Saudi Arabia [SAU; AFP]:** Fleury et al., 1985; Meric and Görmüs, 2001; Meric et al., 2001
23) **Oman [OMN; AFP]:** Cox, 1937; Al-Omari and Sadek, 1976; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001; Abdelghany, 2003
24) **Qatar [QAT; AFP]:** Hamaoui and Fourcade, 1973; Fleury et al., 1985; Loeblich and Tappan, 1988; Fleury et al., 1990; Görmüs, 1999; Meric and Görmüs, 2001; Meric et al., 2001
25) **Yemen [YEM; AFP]:** Fleury et al., 1985; Sartorio and Venturini, 1988; Fleury et al., 1990
26) **Somalia [SOM; AFP]:** Fleury et al., 1985; Fleury et al., 1990; Neumann, 1993
27) **Iraq [IRQ; AFP]:** Hamaoui and Fourcade, 1973; Al-Omari and Sadek, 1976; Fleury et al., 1985; Loeblich and Tappan, 1988; Fleury et al., 1990; Meric and Görmüs, 2001; Meric et al., 2001
28) **Syria [SYR; AFP]:** Ellis and Messina, 1967; Fleury et al., 1985; Loeblich and Tappan, 1988; Fleury et al., 1990; Ismail and Boukhary, 2001; Meric and Görmüs, 2001; Meric et al., 2001; Mouty et al., 2003
29) **Madagascar [MDG; AFP]:** Visser, 1951; Fleury et al., 1985; Abramovich et al., 2002
30) **Belgium [BEL; EFP]:** Hofker, 1966; Bignot and Neumann, 1997
31) **France [FRA; EFP]:** Schlumberger, 1899, 1903; Grossouvre, 1904; Paquier, 1904; Schlumberger and Choffat, 1904; Reichel, 1936; Renz, 1936; Visser, 1951; Ciry and Dupérier, 1950; Papp and Küpper, 1953a; Reichel, 1953; Küpper, 1954b; Papp, 1954, 1955a, 1956; Dalbiez, 1958; Barrier and Neumann, 1959; Maync, 1959; Hanzawa, 1962; Gendrot, 1965; Hottinger, 1966; Ellis and Messina, 1967; Gendrot, 1968; van Hinte, 1968; Dupeuble et al., 1972; Neumann, 1972; Séronie-Vivien, 1972; van Gorsel, 1973a, 1973b; Blanc, 1975; Moreau et al., 1978; Wannier, 1980; Andreieff and Neumann, 1983; Wannier, 1983; Drooger, 1984; Verhallen et al., 1984; Baumfalk and van Hinte, 1985; Fleury et al., 1985; Loeblich and Tappan, 1985; Caus and Hottinger, 1986; Caus et al., 1988; Loeblich and Tappan, 1988; Meertens and Drooger, 1988; Hottinger et al., 1989; Marie, unpubl.; de Castro, 1990; Neumann, 1993; Gischler et al., 1994; Caus et al., 1996; Bignot and Neumann, 1997; Meric et al., 1997; Neumann, 1997; Ismail and Boukhary, 2001; Aguilar et al., 2002; Hottinger and Caus, in press
32) **Spain [ESP; EFP]:** Schlumberger, 1898, 1899; Pfender, 1935; Renz, 1936; Bonte, 1942; Visser, 1951; Küpper, 1954b; Hottinger, 1966; Hofker, 1967; de Castro, 1971; Neumann, 1972; Hamaoui and Fourcade, 1973; Azéma et al., 1979; Caus and Cornella, 1983; Wannier, 1983; Caus and Vicens, 1984; Fleury et al., 1985; Loeblich and Tappan, 1985; Caus and Hottinger, 1986; Caus, 1988; Caus et al., 1988; Loeblich and Tappan, 1988; Hottinger et al., 1989; de Castro, 1990; Neumann, 1993; Gischler et al., 1994; Caus et al., 1996; Meric et al., 1997; Neumann, 1997; Görmüs, 1999; Hottinger and Caus, in press
33) **Germany [DEU; EFP]:** Visser, 1951; Hagn, 1971; Neumann, 1972; Hagn, 1981; Fleury et al., 1985
34) **Sicily [Si-ITA; EFP]:** Visser, 1951; Ellis and Messina, 1967; Sartorio and Venturini, 1988; de Castro, 1990; Ismail and Boukhary, 2001
35) **Italy [ITA; EFP]:** Renz, 1936; Visser, 1951; Colalongo, 1963; de Castro, 1965; Luperto Sinni, 1965, 1966; Ellis and Messina, 1967; Luperto Sinni, 1968; de Castro, 1971; Bignot, 1972; Hamaoui and Fourcade, 1973; Luperto Sinni, 1976; Luperto Sinni and Ricchetti, 1978; Ricchetti and Luperto Sinni, 1979; Busulini et al., 1984; Fleury et

al., 1985; de Castro, 1988; Loeblich and Tappan, 1988; Sartorio and Venturini, 1988; de Castro, 1990; Fleury et al., 1990; Görmüs, 1999; Ismail and Boukhary, 2001; Meric and Görmüs, 2001; Meric et al., 2001

36) **Greece [GRC; EFP]:** Arni, 1933; Renz, 1936; Visser, 1951; Butterlin, 1967; Ellis and Messina, 1967; Hamaoui and Fourcade, 1973; Fleury and Godfriaux, 1974; Richter, 1974; Kalkreuth et al., 1976; Richter and Mariolakos, 1976; Fleury, 1977; Fleury et al., 1979; Fleury et al., 1985; Loeblich and Tappan, 1988; Zambetakis-Lekkas, 1988; de Castro, 1990; Fleury et al., 1990; Mavrikas et al., 1994; Görmüs, 1999; Ismail and Boukhary, 2001; Meric and Görmüs, 2001; Meric et al., 2001; Landrein et al., 2001
37) **Yugoslavia [YUG; EFP]:** Papp, 1954; Bignot, 1972; Hamaoui and Fourcade, 1973; Fleury et al., 1985; Gusic et al., 1988; Loeblich and Tappan, 1988; de Castro, 1990; Fleury et al., 1990; Gusic and Jelaska, 1990; Meric and Görmüs, 2001; Meric et al., 2001
38) **Turkey [TUR; EFP]:** Arni, 1933; Ellis and Messina, 1967; Meric, 1967; Neumann, 1972; Fleury et al., 1985; Loeblich and Tappan, 1988; de Castro, 1990; Fleury et al., 1990; Meric and Coruh, 1991; Sirel, 1991; Neumann, 1993; Özcan, 1993; Sirel, 1995; Caus et al., 1996; Görmüs, 1996; Inan, 1996a, 1996b; Inan et al., 1996; Sirel, 1996; Meric et al., 1997; Özcan and Özkan-Altiner, 1997; Görmüs, 1999; Özcan and Özkan-Altiner, 1999a, 1999b; Özkan-Altiner and Özcan, 1999; Meric and Görmüs, 2001; Meric et al., 2001; Inan, 2002; Sari and Özer, 2002; Hottinger and Caus, in press
39) **Portugal [POR; EFP]:** Schlumberger and Choffat, 1904; Renz, 1936; Bonte, 1942; Loeblich and Tappan, 1988
40) **Sweden [SWE; EFP]:** van Gorsel, 1973b; Loeblich and Tappan, 1988; Sirel, 1995; Bignot and Neumann, 1997
41) **Romania [ROM; EFP]:** Renz, 1936; Hamaoui and Fourcade, 1973; Bratu, 1975; Ion, 1975; Loeblich and Tappan, 1988; de Castro, 1990
42) **S-Russia [RUS; EFP]:** Bonte, 1942; Ellis and Messina, 1967; Fleury et al., 1985
43) **Afghanistan [AFG; ASP]:** Fleury et al., 1985
44) **S-India [S-IND; ASP]:** Visser, 1951; Nagappa, 1959; Gowda, 1964; McGowran, 1968; Fleury et al., 1985
45) **N-India [N-IND; ASP]:** Nagappa, 1959; Gaetani et al., 1980; Wen, 1987
46) **Pakistan [PAK; ASP]:** Renz, 1936; Nagappa, 1959; Ellis and Messina, 1967; McGowran, 1968; Kureshy, 1977, 1980; Fleury et al., 1985; Wen, 1987; Neumann, 1993; Weiss, 1993; Ismail and Boukhary, 2001
47) **Indonesia [IDN; ASP]:** Silvestri, 1925; Wanner, 1931; Yabe and Hanzawa, 1931; Fleury et al., 1985; Loeblich and Tappan, 1988; Pringgoprawiro et al., 1998
48) **Tibet [T-CHN; ASP]:** Renz, 1936; Nagappa, 1959; Ellis and Messina, 1967; Mu et al., 1973; Ho et al., 1976; Sun and Zhang, 1983; Fleury et al., 1985; Wen, 1987; Loeblich and Tappan, 1988; de Castro, 1990; Butterlin, 1992; Willems et al., 1996; Ismail and Boukhary, 2001; Zhang et al., 2002
49) **Line Islands (Kiribati) [KIR; CFP]:** Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981; Butterlin, 1992
50) **Nauru [NRU; CFP]:** Premoli Silva and Brusa, 1981; Schlanger and Premoli Silva, 1981; Butterlin, 1992
51) **Papua New Guinea [PNG; CFP]:** Yabe and Hanzawa, 1931; Brönnimann, 1955; Crespin, 1962; Seiglie and Ayala-Castanares, 1963; Ellis and Messina, 1967; McGowran, 1968; Fleury et al., 1985; Butterlin, 1992; Neumann, 1993
52) **NE-Mexico [NE-MEX; CFP]:** Butterlin, 1967; Loeblich and Tappan, 1988; Butterlin, 1992; Aguilar et al., 2002; Caus et al., 2002

53) **Israel [ISR; AFP]:** Hamaoui and Fourcade, 1973; de Castro, 1988; Loeblich and Tappan, 1988
54) **Lebanon [LEB; AFP]:** Saint-Marc, 1973; Loeblich and Tappan, 1988
55) **Kuwait [KWP; AFP]:** Fleury et al., 1985; Loeblich and Tappan, 1988; Görmüs, 1999
56) **Iran [IRN; EFP]:** Carpenter and Brady, 1869; Douvillé, 1904; Renz, 1936; Cox, 1937; Brönnimann and Wirz, 1962; Al-Omari and Sadek, 1976; Kalantari, 1976; Rahaghi, 1976; Hottinger, 1981; Fleury et al., 1985; Loeblich and Tappan, 1988; Sartorio and Venturini, 1988; Rahaghi, 1989; de Castro, 1990; Fleury et al., 1990; Meric and Coruh, 1991; Görmüs, 1999; Meric and Görmüs, 2001; Meric et al., 2001
57) **Netherlands [NLD; EFP]:** Grossouvre, 1904; Pfender, 1935; Renz, 1936; Visser, 1951; Papp, 1954, 1955a; Renz, 1955; Hanzawa, 1962; Hofker, 1966; Ellis and Messina, 1967; Dupeuble et al., 1972; Neumann, 1972; Wannier, 1980, 1983; Fleury et al., 1985; Caus et al., 1988; Loeblich and Tappan, 1988; de Castro, 1990; Neumann, 1993; Caus et al., 1996; Neumann, 1997; Ferràndez-Canadell, 2000; Ismail and Boukhary, 2001; Aguilar et al., 2002
58) **Switzerland [CHE; EFP]:** Pfender, 1935; Renz, 1936; Visser, 1951; Ellis and Messina, 1967; Wannier, 1983; Fleury et al., 1985; Loeblich and Tappan, 1988; de Castro, 1990; Bignot and Neumann, 1997; Ismail and Boukhary, 2001
59) **Austria [AUT; EFP]:** Visser, 1951; Papp and Küpper, 1953a, 1953b; Papp, 1954; Brönnimann, 1955; Papp, 1955a, 1955b, 1955c, 1956; Loeblich and Tappan, 1988; de Castro, 1990; Butterlin, 1992; Neumann, 1993; Sirel, 1995; Caus et al., 1996; Bignot and Neumann, 1997; Aguilar et al., 2002
60) **Macedonia [MKD; EFP]:** Butterlin, 1967; Meric and Görmüs, 2001; Meric et al., 2001
61) **Albania [ALB; EFP]:** Fleury et al., 1985
62) **Croatia [HRV; EFP]:** Bignot, 1972; Hamaoui and Fourcade, 1973; Fleury et al., 1985; Gusic et al., 1988; Fleury et al., 1990; Gusic and Jelaska, 1990; Meric et al., 2001
63) **Slovenia [SVN; EFP]:** Bignot, 1972; de Castro, 1972; Reichel, 1984; Fleury et al., 1985; Sartorio and Venturini, 1988; de Castro, 1990; Fleury et al., 1990
64) **Malaysia [MYS; ASP]:** McGowran, 1968
65) **Philippines [PHL; ASP]:** Hashimoto et al., 1978a, 1978b; Azéma et al., 1979; Hashimoto and Matsumaru, 1981; Hashimoto, 1982; Hashimoto and Matsumaru, 1984; Fleury et al., 1985
66) **United Arab Emirates [ARE; AFP]:** de Castro, 1988
67) **Hawaii [H-USA; CFP]:** Premoli Silva and Brusa, 1981; Butterlin, 1992
68) **Mexico undifferentiated [MEXu; CFP]:** Caudri, 1944; Brönnimann, 1955, 1957; Hanzawa, 1962; Seiglie and Ayala-Castanares, 1963; Hamaoui and Fourcade, 1973; Butterlin, 1981; Caus and Hottinger, 1986; Loeblich and Tappan, 1988; Neumann, 1993
69) **Cyprus [ZYP; EFP]:** Renz, 1936 ; Fleury et al., 1985
70) **Birma/Myanmar [MMR; ASP]:** Fleury et al., 1985
71) **Slowakei [SVK; EFP] + Czech Republic [CZE; EFP]:** Andrusov, 1934; Neumann, 1993
72) **Sardinia [Sa-ITA; EFP]:** Busulini et al., 1984; Fleury et al., 1985; Hottinger et al., 1989
73) **China [CHN; ASP]:** Gaetani et al., 1980; Sun and Zhang, 1983
74) **former Yugoslavia [YUGf; EFP]:** Loeblich and Tappan, 1988; Fleury et al., 1990
75) **Jordan [JOR; EFP]:**Al-Harithi, 1986

Assorted localities:
80) Belgium (30) + The Netherlands (57)

81) Israel (53) + Lebanon (54)
82) Germany (33) + Switzerland (58) + Austria (59)
83) Greece (36) + Macedonia (60) + Albania (61)
84) Yugoslavia (37) + Croatia (62) + Slovenia (63) + former Yugoslavia (74)

13.4 Diversity in the Localities

	Chubbina	*Clypeorbis*	*Cuneolina*	*Dictyopsella*	*Helicorbitoides*	*Hellenocyclina*	*Lacazina*	*Laffiteina*	*Lepidorbitoides*	*Loftusia*	*Meandropsina*	*Nummofallotia*	*Omphalocyclus*	*Orbitocyclina*	*Orbitoides*	*Pseudedomia*	*Pseudorbitoides*	*Raadshoovenia*	*Rhapydionina*	*Siderolites*	*Sirtina*	*Spirocyclina*	*Subalveolina*	*Sulcoperculina*	*Vaughanina*	Number of genera
1	X		X						X				X	X	X		X							X	X	9
2	X								X					X	X		X							X	X	7
3	X												X	X	X		X							X	X	7
4														X			X									2
5																	X							X		2
6	X												X		X		X							X		5
7																	X							X		2
8																	X									1
9																	X								X	2
10									X				X		X		X							X	X	6
11									X															X		2
12																	X							X	X	3
13																	X							X	X	3
14																									X	1
15						X		X																		2
16								X					X		X					X						4
17								X					X		X	X										4
18								X	X				X		X					X	X					6
19								X																		1
20													X		X											2
21									X																	1
22										X			X		X					X						4
23									X	X			X		X					X						5
24									X	X			X		X	X										5
25									X	X			X		X					X						5
26									X	X			X		X											4
27			X							X			X			X		X	X							6
28									X	X			X		X					X						5
29									X				X		X					X	X					5
30				X									X		X					X	X					5
31		X	X	X	X	X	X	X	X		X	X	X	X	X					X	X	X	X			17
32		X	X	X		X	X	X	X		X	X	X	X	X	X		X		X	X					16
33									X				X		X					X						4
34															X					X						2
35			X	X				X	X	X		X	X		X	X		X	X	X						12
36		X	X			X		X	X	X		X	X		X	X		X	X	X	X					14
37			X			X			X	X			X		X	X		X	X	X						10
38		X	X		X	X		X	X	X		X	X		X	X			X	X	X					14
39				X												X										2
40					X																					1
41									X				X		X					X						4
42									X																	1
43								X																		1
44									X					X						X						3
45													X		X					X						3
46								X	X				X		X					X						5
47									X																	1
48									X				X		X					X						4
49			X						X								X							X	X	5
50									X					X			X							X	X	5
51															X											1
52														X	X									X	X	4
53																X										1
54																X										1
55																X										1
56						X			X	X			X		X	X				X	X					8
57				X		X			X			X	X		X					X						7
58					X	X			X			X	X		X					X						7
59					X				X				X	X	X					X	X					7
60									X	X					X											3

61																			X							1
62				X				X		X		X	X		X			X	X	X						8
63		X						X	X				X		X			X	X	X						8
64									X																	1
65									X				X		X											3
66																X										1
67									X								X							X	X	4
68	X													X	X		X							X		5
69								X	X				X	X	X				X	X						7
70															X											1
71									X				X		X					X						4
72		X					X		X						X											4
73																				X						1
74								X	X					X												3
	Chubbina	*Clypeorbis*	*Cuneolina*	*Dictyopsella*	*Helicorbitoides*	*Hellenocyclina*	*Lacazina*	*Laffitteina*	*Lepidorbitoides*	*Loftusia*	*Meandropsina*	*Nummofallotia*	*Omphalocyclus*	*Pseudorbitella*	*Orbitoides*	*Pseudedomia*	*Pseudorbitoides*	*Raadshoovenia*	*Rhapydionina*	*Siderolites*	*Sirtina*	*Spirocyclina*	*Subalveolina*	*Sulcoperculina*	*Vaughanina*	*Number of genera*