



RESEARCH ARTICLE - BEES

The State of the Art of the Tunisian Apidae Fauna (Hymenoptera: Anthophila)

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Abstract

Based on a review of the available literature, the state of the art and a checklist of the fauna of the Apidae family of Tunisia is presented. The first list of the species of the family is given. 184 species and subspecies belonging to 19 genera, 12 tribes and three subfamilies were listed. Distribution of recorded taxa from Tunisia and from the world is provided. Apinae is the subfamily with the highest species richness with 89 species. *Nomada* has the highest number of species represented by 62 taxa. The Tunisian East center is the least species-diversified regions with only 16 species and subspecies reported so far. Five species are endemic to Tunisian fauna. Eight *Nomada* and one *Anthophora* species were collected from Tunisia, but their identity should be re-confirmed. The presence of *Thyreomelecta sibirica* (Radoszkowski, 1893) in Tunisia is doubtful and a re-examination and confirmation are needed.

Introduction

Hymenoptera is one of the most diverse insect orders with more than 150,000 described species (Aguilar et al., 2013). Members of this group are known for their important ecological role as pollinators and regulators of arthropods populations through parasitism and predation (Michez et al., 2019). The hymenopteran pollinators belong mainly to the superfamily Anthophila which has a crucial role in the reproduction of most flowering plants. For example, 70% of cultivated plants worldwide directly depend on the Anthophila (Apoidea) (Klein et al., 2007).

Anthophila is represented worldwide by more than 20,000 described species belonging to seven families (Michener, 2007; Ascher & Pickering, 2021). Despite its diversity and its significance in the biodiversity and the

terrestrial ecosystems, studies on this group, particularly within Apidae, are scarce in Tunisia. Most species records in Tunisian ecosystem were outdated (Schulthess, 1924; Dusmet & Alonso, 1928, 1932; Daly, 1983; Sonet & Jacob-Remacle, 1987). Luckily, during the last years have been conducted some studies focusing on pollination of wild and cultivated plants (Rjiba, 2014; Chouchaine, 2015; Ben Abdelkader et al., 2020). Some records of species belonging to Apidae were cited by Chouchaine (2015) which reported 10 genera of Apidae, indicating the genus *Eucera* with a high number of species. Also, Rjiba (2014) reported the presence of *Nomada*, *Eucera* and *Anthophora* in Sousse and Bizerte provinces. The study conducted by Ben Abdelkader et al. (2020) in Northern Tunisia (Goubellat, Beja province) indicated the presence of two families of bees, Apidae represented by *Apis mellifera* Linnaeus, 1758 and Megachilidae represented by *Megachile* sp.



These studies are still seldom and do not determine the complete identity of captured specimens, in addition to have been carried out on a regional scale, not covering the entire country.

Here in, we provide an up to date list based on the screening of different literature review on the occurrence of species of Apidae recorded in Tunisia.

Materials and Methods

Available data existing in old and recent literature about Apidae family in Tunisia (Fig 1) were examined and summarized in a list as follows: for each species or subspecies, its valid name followed by the reference to its original description and its distribution in Tunisia and in the world were given. The classification and nomenclature follow Michener (2007) with some updates, as the case of the genus *Tetraloniella* Ashmead, 1900 which was synonymized under *Tetralonia* Spinola, 1838 by Michener (2007) and subsequently treated as a junior synonym of *Eucera* by Dorchin et al. (2018). General distribution follows mainly Ascher

and Pickering (2021). Species and subspecies within genera were ordered alphabetically. References of the distribution in Tunisia in published data were provided chronologically from the oldest to the most recent. “No specific locality” was mentioned when no reference about the exact location have been provided.

Abbreviations used in the list are: **M.R.:** Main Road; **S.R.:** Secondary Road; **N:** North; **S:** South; **E:** East; **SE:** Southeast; **SW:** Southwest; **NW:** Northwest and **km:** Kilometer.

Results

In this study and based on published data a total of 184 species and subspecies belonging to 19 genera, 12 tribes and three subfamilies of Apidae are recorded in Tunisia. The most species-rich subfamilies were Apinae (89 species; 10 genera; six tribes), Nomadinae (81 species; seven genera; four tribes) and Xylocopinae (14 species; two genera; two tribes). The most diverse genus is *Nomada* with 62 species, followed by *Eucera* and *Anthophora* with 33 and 26 species, respectively (Fig 2).

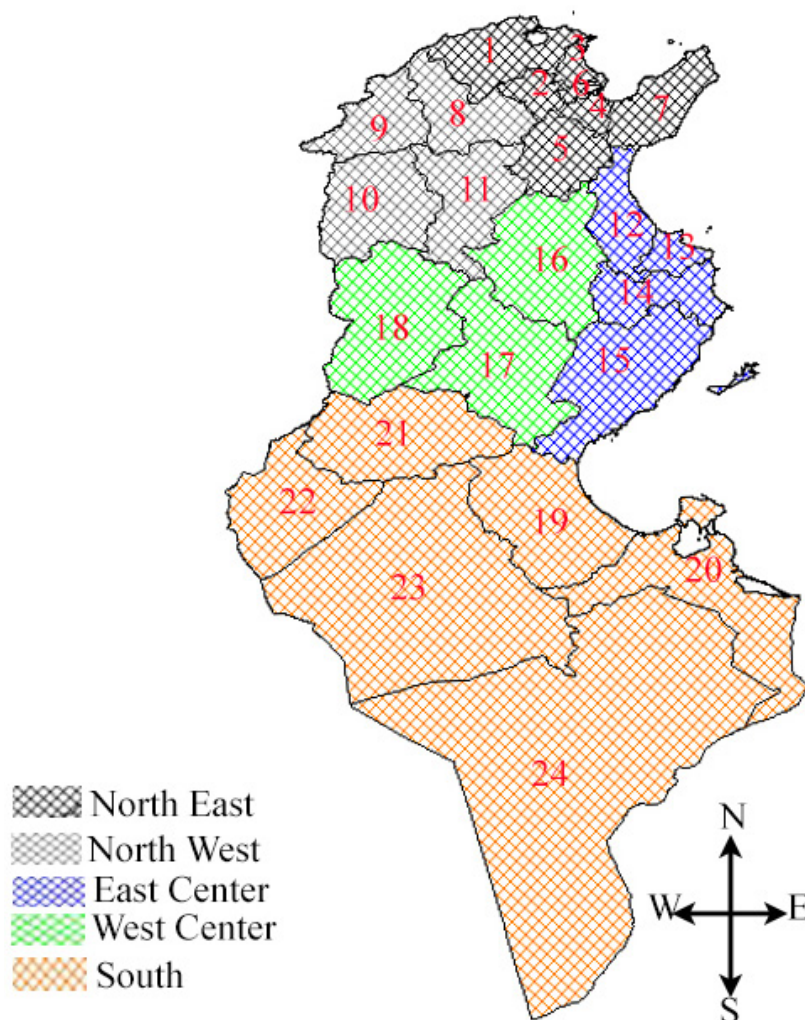


Fig 1. Provinces of Tunisia: 1. Bizerte; 2. Mannouba; 3. Ariana 4. Ben Arous; 5. Zaghouan; 6. Tunis; 7. Nabeul; 8. Beja; 9. Jendouba; 10. Le Kef; 11. Siliana; 12. Sousse; 13. Monastir; 14. Mahdia; 15. Sfax; 16. Kairouan; 17. Sidi Bouzid; 18. Kasserine; 19. Gabes; 20. Medenine; 21. Gafsa; 22. Tozeur; 23. Kebili; 24. Tataouine.

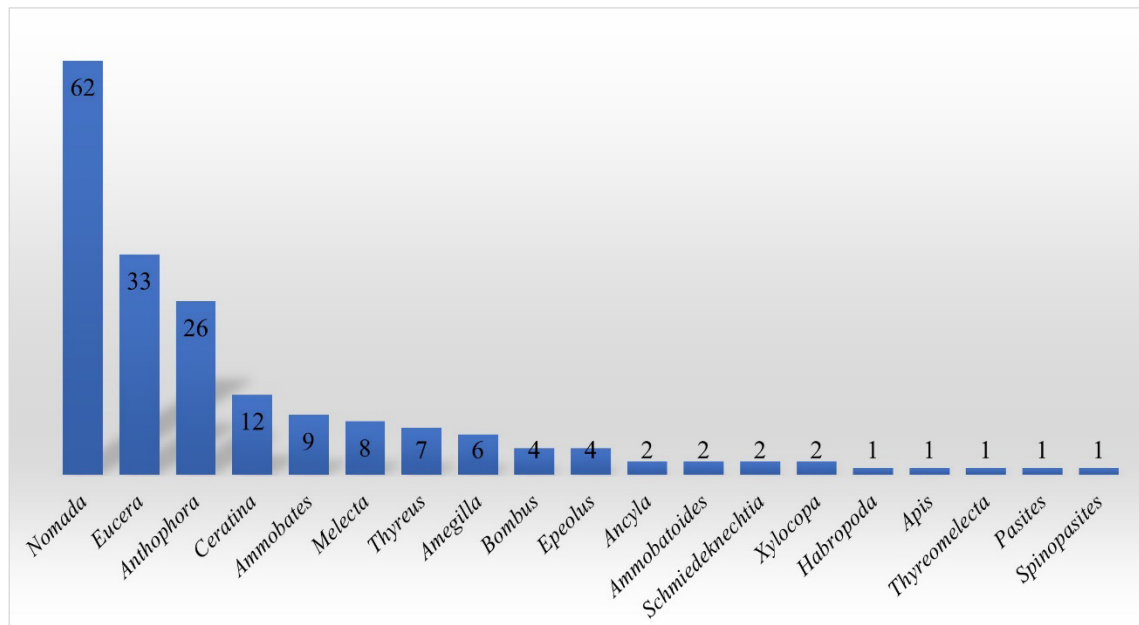


Fig 2. Apidae species number per genus in Tunisia.

Subfamily: Apinae Latreille, 1802

Tribe: Anthophorini Dahlbom, 1835

Genus: *Amegilla* Friese, 1897

Amegilla (Amegilla) ochroleuca (Pérez, 1879)

Anthophora ochroleuca Pérez, 1879.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: France, Greece, Italy, Morocco, Russia, Tunisia, and Ukraine (Ascher & Pickering, 2021).

Amegilla (Amegilla) quadrifasciata (de Villers, 1789)

Apis quadrifasciata de Villers, 1789.

Distribution in Tunisia: Ben Arous (Hammam Lif), Gafsa, Kairouan, Kasserine (Sbeitla), Sfax (Schulthess, 1924 as *Anthophora quadrifasciata*); Sousse (Ascher & Pickering, 2021).

General distribution: Albania, Algeria, Austria, Bulgaria, Myanmar, China, Croatia, Czech Republic, Egypt, France, Georgia, Germany, Greece, Hungary, India, Iran, Iraq, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Libya, Luxemburg, Malta, Mongolia, Montenegro, Morocco, Pakistan, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, South Africa, Spain, Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

Amegilla (Micramegilla) andresi (Friese, 1914)

Anthophora andresi Friese, 1914.

Distribution in Tunisia: Gabes (Schwarz & Gusentleiner, 2001).

General distribution: Egypt, Israel, Libya, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

Amegilla (Micramegilla) fasciata (Fabricius, 1775)

Apis fasciata Fabricius, 1775.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Egypt, France, Italy, Libya, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

Amegilla (Zebramegilla) albigena (Lepelletier, 1841)

Anthophora albigena Lepelletier, 1841.

Distribution in Tunisia: Sfax (Schulthess, 1924 as *Anthophora albigena*); Le Kef (Ascher & Pickering, 2021).

General distribution: Albania, Algeria, Austria, Bulgaria, Croatia, Czech Republic, Egypt, France, Georgia, Greece, Hungary, Iran, Israel, Italy, Jordan, Lebanon, Libya, Macedonia, Malta, Morocco, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Switzerland, Syria, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

Amegilla marqueti (Pérez, 1895)

Anthophora marqueti Pérez, 1895.

Distribution in Tunisia: Tozeur (Schulthess, 1924 as *Anthophora marqueti*).

General distribution: North Africa (Ascher & Pickering, 2021).

Genus: *Anthophora* Latreille, 1803

Anthophora (Anthophora) canescens Brullé, 1832

Anthophora canescens Brullé, 1832.

Distribution in Tunisia: Kairouan (Schulthess, 1924 as *Anthophora nigrocincta*); Ariana, Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Croatia, Cyprus, Egypt, Greece, Israel, Italy, Libya, Malta, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

Anthophora (Anthophora) crinipes Smith, 1854

Anthophora crinipes Smith, 1854.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Bulgaria, Czech Republic, Egypt, France, Georgia, Germany, Greece, Iran, Iraq, Israel, Italy, Hungary, Kyrgyzstan, Morocco, Portugal, Romania, Russia, Spain, Slovakia, Slovenia, Switzerland, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Anthophora (Anthophora) fulvitaris* Brullé, 1832**

Anthophora fulvitaris Brullé, 1832.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, China, France, Georgia, Germany, Iran, Italy, Kazakhstan, Kyrgyzstan, Morocco, Pakistan, Portugal, Russia, Spain, Tunisia, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Anthophora (Anthophora) plumipes* (Pallas, 1772)**

Apis plumipes Pallas, 1772.

Distribution in Tunisia: Zaghuan (Thuburbo Majus ruins, 2 km N Al Fahs) (Ascher & Pickering, 2021).

General distribution: Afghanistan, Azerbaijan, Belarus, China, Cyprus, Czech Republic, Denmark, England, Finland, Germany, Greece, Hungary, Iran, Italy, Japan, Kazakhstan, Lithuania, Morocco, Poland, Portugal, Russia, Spain, Syria, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Anthophora (Anthophora) senescens* Lepeletier, 1841**

Anthophora senescens Lepeletier, 1841.

Distribution in Tunisia: Kairouan, Kasserine (Sbeitla), Tunis (Carthage) (Schulthess, 1924); Medenine (Zarzis) (Ascher & Pickering, 2021).

General distribution: Algeria, China, France, Israel, Italy, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Caranthophora) pubescens* (Fabricius, 1781)**

Anthophora pubescens Fabricius, 1781.

Distribution in Tunisia: Gafsa, Kasserine (Sbeitla) (Schulthess, 1924).

General distribution: China, Germany, Israel, Morocco, Russia, Slovakia, Slovenia, Spain, Tunisia, and Ukraine (Ascher & Pickering, 2021).

***Anthophora (Heliophila) bimaculata* (Panzer, 1798)**

Apis bimaculata Panzer, 1798.

Distribution in Tunisia: Sfax, Kairouan (Schulthess, 1924).

General distribution: Algeria, Austria, Bulgaria, China, Croatia, Czech Republic, England, Estonia, France, Georgia, Germany, Hungary, Iran, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Libya, Lithuania, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Slovakia, Spain, Switzerland, Tajikistan, Tunisia, Turkey, and Turkmenistan (Ascher & Pickering, 2021).

***Anthophora (Heliophila) humilis* (Spinola, 1838)**

Saropoda humilis Spinola, 1838.

Distribution in Tunisia: Tozeur (Schulthess, 1924 as *Anthophora albocinerea*).

General distribution: Algeria, Egypt (Ascher & Pickering, 2021).

***Anthophora (Lophanthophora) dispar* Lepeletier, 1841**

Anthophora dispar Lepeletier, 1841.

Distribution in Tunisia: Tunis (Carthage) (Schulthess, 1924); Medenine (Zarzis), Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Egypt, France, Germany, Israel, Italy, Libya, Malta, Morocco, Portugal, Spain, Syria, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Lophanthophora) hispanica* (Fabricius, 1787)**

Apis hispanica Fabricius, 1787.

Distribution in Tunisia: Tunis (Carthage) (Schulthess, 1924).

General distribution: Egypt, Israel, Libya, Morocco, Portugal, Spain, Syria, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Anthophora (Lophanthophora) mucida* Gribodo, 1873**

Anthophora mucida Gribodo, 1873.

Distribution in Tunisia: Tunisia: no specific locality (Maidl, 1922 as *Podalirius mucidus*).

General distribution: Bulgaria, Egypt, France, Greece, Italy, Kazakhstan, Morocco, Portugal, Romania, Spain, Switzerland, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Anthophora (Paramegilla) astragali* Morawitz, 1879**

Anthophora astragali Morawitz, 1879.

Distribution in Tunisia: Tozeur (Nefta) (Schulthess, 1924).

General distribution: Armenia, Azerbaijan, Georgia, and Russia (Ascher & Pickering, 2021).

***Anthophora (Paramegilla) blanda* Pérez, 1895**

Anthophora blanda Pérez, 1895.

Distribution in Tunisia: Kairouan, Kasserine (Sbeitla), Tunis (Carthage) (Schulthess, 1924).

General distribution: Algeria and Israel (Ascher & Pickering, 2021).

***Anthophora (Paramegilla) planca* Pérez, 1895**

Anthophora planca Pérez, 1895.

Distribution in Tunisia: Sfax (Schulthess, 1924).

General distribution: Algeria (Ascher & Pickering, 2021).

***Anthophora (Paramegilla) quadricolor* (Erichson, 1840)**

Megilla quadricolor Erichson, 1840.

Distribution in Tunisia: Tunis (Carthage) (Schulthess, 1924).

General distribution: France, Italy, Morocco, Portugal, and Spain (Ascher & Pickering, 2021).

***Anthophora (Petalosternom) calcarata* Lepeletier, 1841**

Anthophora calcarata Lepeletier, 1841.

Distribution in Tunisia: Ben Arous (Hammam Lif), Kairouan, Kasserine (Sbeitla), Tunis (Carthage) (Schulthess, 1924).

General distribution: Algeria, France, Italy, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Petalosternom) rivolleti* Pérez, 1895**

Anthophora rivolleti Pérez, 1895.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Egypt, Israel, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) albosignata* (Friese, 1896)**

Podalirius albosignatus Friese, 1896b.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Egypt, Greece, Italy, Libya, Morocco, Syria, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) atriceps* Pérez, 1879**

Anthophora atriceps Pérez, 1879.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Egypt, Iran, Israel, Libya, Morocco, Portugal, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) atroalba* Lepeletier, 1841**

Anthophora atro-alba Lepeletier, 1841.

Distribution in Tunisia: Tunis (Cockerell, 1920); Tunis (Centre, Carthage), Kairouan (Schulthess, 1924).

General distribution: Algeria, Croatia, France, Greece, India, Iran, Italy, Lebanon, Libya, Morocco, Pakistan, Portugal, Spain, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) caroli* Pérez, 1895**

Anthophora caroli Pérez, 1895.

Distribution in Tunisia: Kasserine (Sbeitla) (Schulthess, 1924).

General distribution: Algeria, Palestine, and Tunisia.

***Anthophora (Pyganthophora) facialoides* Brooks, 1988**

Anthophora facialoides Brooks, 1988.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Egypt and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) holoxantha* Pérez, 1895**

Anthophora holoxantha Pérez, 1895.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) libyphaenica* Gribodo, 1893**

Anthophora libyphaenica Gribodo, 1893.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Israel, Libya, Morocco, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) scopipes* Spinola, 1838**

Anthophora scopipes Spinola, 1838.

Distribution in Tunisia: Sfax (Schulthess, 1924).

General distribution: Algeria, Egypt, Israel, Morocco, and Tunisia (Ascher & Pickering, 2021).

***Anthophora (Pyganthophora) ventrilabris* Lepeletier, 1841**

Anthophora ventrilabris Lepeletier, 1841.

Distribution in Tunisia: Tunisia: no specific locality (Schulthess, 1924; Ascher & Pickering, 2021).

General distribution: Algeria, Greece, Italy, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

***Anthophora* sp.**

Distribution in Tunisia: Tozeur (Schulthess, 1924).

Genus: *Habropoda* Smith, 1854

***Habropoda oraniensis* (Lepeletier, 1841)**

Anthophora oraniensis Lepeletier, 1841.

Distribution in Tunisia: Tunisia: no specific locality (Schwarz & Gusentleitner, 2001); Medenine (Zarzis) (Ascher & Pickering, 2021).

General distribution: Algeria, Egypt, Libya, and Tunisia (Ascher & Pickering, 2021).

Tribe: Ancyilaini Michener, 1944

Genus: *Ancyla* Lepeletier, 1841

***Ancyla brevis* Dours, 1873**

Ancyla brevis Dours, 1873.

Distribution in Tunisia: Tunis (Friese, 1922 as *Ancyla punica*).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Ancyla oraniensis* Lepeletier, 1841**

Ancyla oraniensis Lepeletier, 1841.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Greece, Morocco, and Tunisia (Ascher & Pickering, 2021).

Tribe: Apini Latreille, 1802

Genus: *Apis* Linnaeus, 1758

***Apis mellifera* Linnaeus, 1758**

Apis mellifera Linnaeus, 1758.

Distribution in Tunisia: Everywhere.

General distribution: Worldwide (Ascher & Pickering, 2021).

Tribe: Bombini Latreille, 1802

Genus: *Bombus* Latreille, 1802

***Bombus (Bombus) terrestris* (Linnaeus, 1758)**

Apis terrestris Linnaeus, 1758.

Distribution in Tunisia: Tunisia: no specific locality (Schulthess, 1924 as var. with scopa red on hind tibiae);

Jendouba (Hotel les Chines, 5 km South Ain Draham) (Ascher & Pickering, 2021).

General distribution: Afghanistan, Algeria, Argentina, Australia, Belarus, Brazil, Canary Islands, Chile, China, Georgia, Iceland, Iran, Israel, Japan, Kazakhstan, Kyrgyzstan, Libya, Mongolia, Morocco, New Zealand, Palestine, Russia, South Korea, Syria, Tajikistan, Tunisia, Turkey, United States, and Uzbekistan, very common in Europe (Ascher & Pickering, 2021).

Bombus (Megabombus) ruderatus (Fabricius, 1775)

Apis ruderata Fabricius, 1775.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Argentina, Austria, Czech Republic, Belarus, Belgium, Bosnia, Bulgaria, Canary Islands, Chile, Czech Republic, England, France, Germany, Greece, Hungary, Iceland, Italy, Luxemburg, Morocco, New Zealand, Norway, Poland, Portugal, Romania, Russia, Spain, Switzerland, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

Bombus (Thoracobombus) laesus Morawitz, 1875

Bombus laesus Morawitz in Fedtschenko, 1875.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Azerbaijan, Belarus, Bulgaria, China, Czech Republic, Estonia, France, Georgia, Germany, Greece, Hungary, Iran, Kazakhstan, Kyrgyzstan, Lithuania, Macedonia, Morocco, Poland, Romania, Russia, Serbia, Slovakia, Spain, Switzerland, Tajikistan, Tunisia, Turkey, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

Bombus (Thoracobombus) ruderarius (Müller, 1776)

Apis ruderaria Müller, 1776.

Distribution in Tunisia: Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Azerbaijan, Georgia, Iran, Kazakhstan, Kyrgyzstan, Russia, Tunisia, and Turkey, very common in Europe (Ascher & Pickering, 2021).

Tribe: Eucerini Latreille, 1802

Genus: *Eucera* Scopoli, 1770

Eucera (Eucera) alopex Risch, 1999

Eucera alopex Risch, 1999.

Distribution in Tunisia: Medenine (30 km N Medenine, Zarzis, 20 km S Zarzis, 30 km S Zarzis), Nabeul (Hammamet, Grombelia) (Risch, 1999).

General distribution: Tunisia (Ascher & Pickering, 2021).

Eucera (Eucera) dimidiata Brullé, 1832

Eucera dimidiata Brullé, 1832.

Distribution in Tunisia: Kairouan (Dusmet & Alonso, 1928).

General distribution: Afghanistan, Algeria, Cyprus, Egypt, Greece, Hungary, Iran, Iraq, Israel, Morocco, Saudi Arabia, Tunisia, and Turkey (Ascher & Pickering, 2021).

Eucera (Eucera) ferruginea Lepeletier, 1841

Eucera ferruginea Lepeletier, 1841.

Distribution in Tunisia: Jendouba (10 km E Ain Draham) (Ascher & Pickering, 2021).

General distribution: Afghanistan, Algeria, Morocco, Tunisia (Ascher & Pickering, 2021).

Eucera (Eucera) grisea Fabricius, 1793

Eucera grisea Fabricius, 1793.

Distribution in Tunisia: Kairouan, Kasserine (Sbeitla), (Schulthess, 1924; Dusmet & Alonso, 1928).

General distribution: Algeria, Egypt, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

Eucera (Eucera) interrupta Bär, 1850

Eucera interrupta Bär, 1850.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Albania, Algeria, Austria, Azerbaijan, Bulgaria, China, France, Georgia, Germany, Greece, Hungary, Italy Kazakhstan, Macedonia, Poland, Romania, Russia, Slovenia, Slovakia, Switzerland, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

Eucera (Eucera) nigrilabris Lepeletier, 1841

Eucera nigrilabris Lepeletier, 1841.

Distribution in Tunisia: Tunis (Carthage) (Schulthess, 1924); Kairouan (Dusmet & Alonso, 1928); Gabes (10 km SE Matmata), Kasserine (Bouchebka) (Ascher & Pickering, 2021).

General distribution: Azerbaijan, Algeria, France, Germany, Greece, Iran, Israel, Kazakhstan, Morocco, Portugal, Romania, Russia, Spain, Tajikistan, Tunisia, Turkey, Turkmenistan, and Uzbekistan (Ascher & Pickering, 2021).

Eucera (Eucera) numida Lepeletier, 1841

Eucera numida Lepeletier, 1841.

Distribution in Tunisia: Kairouan (Dusmet & Alonso, 1928); Jendouba (Tabarka), Tozeur (Oasis Tozeur) (Ascher & Pickering, 2021).

General distribution: Algeria, France, Italy, Malta, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

Eucera (Heteuercera) algira Brullé, 1840

Eucera algira Brullé, 1840.

Distribution in Tunisia: Tozeur (Oued Melah between Gafsa and Tozeur) (Schulthess, 1924); Kairouan, Tunis (Dusmet & Alonso, 1928).

General distribution: Algeria, Greece, Israel, Italy, Malta, Morocco, and Spain (Ascher & Pickering, 2021).

Eucera (Heteuercera) atricornis Fabricius, 1793

Eucera atricornis Fabricius, 1793.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Iran, Morocco, Tunisia and Turkey (Ascher & Pickering, 2021).

***Eucera (Heterocera) bequaerti* Alfken, 1914**

Eucera bequaerti Alfken, 1914.

Distribution in Tunisia: Jendouba (Tabarka, 15 km S Jendouba), Kasserine (20 km S Thala), Nabeul (Hammamet, Grombelia), Tunis (Risch, 2001).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Eucera (Heterocera) clypeata* Erichson, 1835**

Eucera clypeata Erichson, 1835.

Distribution in Tunisia: Jendouba (4 km S Ain Draham, 10 km E Ain Draham) (Risch, 2003).

General distribution: Afghanistan, Albania, Algeria, Azerbaijan, Bulgaria, Czech Republic, France, Georgia, Germany, Greece, Iran, Iraq, Italy, Jordan, Kazakhstan, Kyrgyzstan, Macedonia, Moldova, Morocco, Pakistan, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Eucera (Heterocera) elongatula* Vachal, 1907**

Eucera elongatula Vachal, 1907.

Distribution in Tunisia: Sfax (Ascher & Pickering, 2021).

General distribution: Algeria, France, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Eucera (Heterocera) genovefae* Vachal, 1907**

Eucera Genovefae Vachal, 1907.

Distribution in Tunisia: Gafsa (15 km N Metlaoui, 20 km N Metlaoui, 20 km N Gafsa, Sidi Boubaker), Kasserine, Medenine (30 km SW Medenine), Tataouine (55 km S Tataouine, 56 km S Tataouine, Ksar Hadada) (Risch, 2001); Kasserine (Bouchebka), Tozeur (8 km S Tamerza) (Ascher & Pickering, 2021).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Eucera (Heterocera) notata* Lepeletier, 1841**

Eucera notata Lepeletier, 1841.

Distribution in Tunisia: Kasserine (Sbeitla), Tunis (Schulthess, 1924); Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Egypt, Germany, Italy, Libya, Morocco, Portugal, Spain, Tunisia, and Turkey (Ascher & Pickering, 2021).

Eucera (Heterocera) obliterated Pérez, 1895

Eucera obliterated Pérez, 1895.

Distribution in Tunisia: Beja (15 km SE Teboursouk, 10 km S Beja), Jendouba, Kairouan (20 km N Kairouan, 17 km N Kairouan), Kasserine (Bouchebka), Kebili (Douz), Le Kef (Tajerouine, 30 km S Le Kef), Siliana (Makthar), Sousse (Msaken), Zaghuan (Mograne, 20 km NW Zaghuan, 30 km S Zaghuan) (Risch, 2003).

General distribution: Algeria, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Eucera (Heterocera) oraniensis* Lepeletier, 1841**

Eucera oraniensis Lepeletier, 1841.

Distribution in Tunisia: Kasserine (Bouchebka), Tataouine (5 km E Djouama) (Ascher & Pickering, 2021).

General distribution: Algeria, Malta, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

***Eucera (Heterocera) polita* Pérez, 1895**

Eucera polita Pérez, 1895.

Distribution in Tunisia: Gafsa (40 km NW Gafsa), Kasserine (10 km NW Thelepte) (Ascher & Pickering, 2021).

General distribution: Libya, Morocco and Tunisia (Ascher & Pickering, 2021).

***Eucera (Heterocera) saundersi* Friese, 1899**

Eucera saundersi Friese, 1899b.

Distribution in Tunisia: Tunis (Friese, 1899b; Schulthess, 1924; Dusmet & Alonso, 1928).

General distribution: North Africa (Lhomme et al., 2020).

***Eucera (Heterocera) seminuda* Brullé, 1832**

Eucera seminuda Brullé, 1832.

Distribution in Tunisia: Kairouan (Schulthess, 1924 as *Eucera trivittata*).

General distribution: Armenia, Austria, Azerbaijan, Bulgaria, Croatia, Cyprus, Greece, Hungary, Macedonia, Czech Republic, Russia, Slovakia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Eucera (Heterocera) spatulata* Gribodo, 1893**

Eucera spatulata Gribodo, 1893.

Distribution in Tunisia: Beja (10 km S Beja, 15 NW Teboursouk, 15 km SE Teboursouk, 5 km NW Teboursouk), Gabes (Matmata), Jendouba (Fernana, 15 km S Jendouba, 10 km N Jendouba, 21 km N Jendouba, 10 km S Tabarka), Medenine (Djerba, Houmt Souk 5 km S Richtung Midoun), Nabeul (5 km NW Grombelia, Korba, Nabeul), Siliana (15 km SW Makthar, 15 km N Makthar), Sousse (Msaken), Tunis (NE Tunis Jebel Amarbei Jabbes), Gafsa (Bou Hedma), Zaghuan (30 km SE Zaghuan, 20 km NW Zaghuan) (Risch, 2003).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Eucera (Heterocera) vachali* Pérez, 1895**

Eucera vachali Pérez, 1895.

Distribution in Tunisia: Beja (10 km NW Teboursouk), Gabes (5 km SE Matmata, 10 km SE Matmata, Matmata), Kairouan (10 km W Sbikha), Kasserine (10 km NNW Thelepte), Medenine (Zarzis, S Djerba, 14 km SE Houmt Souk, 20 km SW Medenine), Nabeul (Hammamet, Grombelia), Sfax (30 km SW Sfax), Sidi Bouzid, Siliana (Makthar), Sousse (Msaken), Tataouine (Ksar Hadada, Chenini), Tunis (La Marsa?), Zaghuan (20 km NW Zaghuan) (Risch, 2003).

General distribution: Algeria, Morocco, Tunisia (Ascher & Pickering, 2021).

***Eucera (Heteuercera) warnckei* Risch, 1999**

Eucera warnckei Risch, 1999.

Distribution in Tunisia: Medenine (30 km E Medenine), Nabeul (Hammamet, Grombelia) (Risch, 1999); Gabes (50 km W Matmata, 10 km SE Matmata), Nabeul (Ascher & Pickering, 2021).

General distribution: Morocco and Tunisia (Ascher & Pickering, 2021).

***Eucera (Pteneucera) eucnemidea* Dours, 1873**

Eucera eucnemidea Dours 1873.

Distribution in Tunisia: Tunisia: no specific locality (Schulthess, 1924; Risch, 1997); Gafsa (Oasis Gafsa) (Dusmet & Alonso, 1928).

General distribution: Algeria, Armenia, France, Italy, Kazakhstan, Libya, Malta, Morocco, Portugal, Russia, Spain, Syria, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Eucera (Pteneucera) nigrifacies* Lepeletier, 1841**

Eucera nigrifacies Lepeletier, 1841.

Distribution in Tunisia: Beja, Mannouba (Tebourba) (Schulthess, 1924); Tunisia: no specific locality (Risch, 1997); Jendouba (10 km E Ain Drahem) (Ascher & Pickering, 2021).

General distribution: Algeria, Azerbaijan, Bulgaria, France, Georgia, Germany, Greece, Hungary, Iran, Israel, Italy, Jordan, Kazakhstan, Macedonia, Morocco, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Syria, Tajikistan, Tunisia, Turkey, and Uzbekistan (Ascher & Pickering, 2021).

***Eucera (Synhalonia) cuniculina* Klug, 1845**

Eucera cuniculina Klug, 1845.

Distribution in Tunisia: Tozeur (Schulthess, 1924 as *Eucera (Macrocera) cuniculina*)

General distribution: Egypt, Israel, Jordan, Libya, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

***Eucera (Synhalonia) mediterranea* Friese, 1895**

Eucera mediterranea Friese, 1895.

Distribution in Tunisia: Tunisia: no specific locality (Schulthess, 1924).

General distribution: Greece, Israel, Italy, Spain, and Turkey (Ascher & Pickering, 2021).

***Eucera (Synhalonia) metallescens* (Morawitz, 1888)**

Tetralonia metallescens Morawitz, 1888.

Distribution in Tunisia: Tozeur (Oued Melah between Gafsa and Tozeur) (Schulthess, 1924).

General distribution: Pakistan and Turkmenistan (Ascher & Pickering, 2021).

***Eucera (Synhalonia) ruficollis* (Brullé, 1832)**

Macrocera ruficollis Brullé, 1832.

Distribution in Tunisia: Gafsa, Kasserine (Sbeitla), Tunis (Carthage) (Schulthess, 1924).

General distribution: Greece, France, Italy, Kazakhstan, Romania, Russia, Syria, Tajikistan, Turkey, Turkmenistan, and Uzbekistan (Ascher & Pickering, 2021).

***Eucera (Synhalonia) tricincta* Erichson, 1835**

Eucera tricincta Erichson, 1835.

Distribution in Tunisia: Gafsa, Kasserine (Sbeitla) (Schulthess, 1924)

General distribution: Afghanistan, Algeria, Azerbaijan, Egypt, Greece, Hungary, Iran, Israel, Italy, Jordan, Kazakhstan, Morocco, Portugal, Romania, Russia, Slovakia, Spain, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Eucera (Tetralonia) alticincta* (Lepeletier, 1841)**

Macrocera alticincta Lepeletier, 1841.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021 as *Tetraloniella alticincta*).

General distribution: Albania, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Kyrgyzstan, Macedonia, Morocco, Romania, Russia, Serbia, Slovakia, Slovenia, Switzerland, Tajikistan, Tunisia, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Eucera (Tetralonia) cinctella* Saunders, 1908**

Eucera (Macrocera) cinctella Saunders, 1908.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021 as *Tetraloniella cinctella*).

General distribution: Algeria, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Eucera (Tetralonia) dentata* Germar, 1839**

Eucera dentata Germar, 1839.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021 as *Tetraloniella dentata*).

General distribution: Algeria, Armenia, Austria, Belarus, Bulgaria, China, Croatia, Czech Republic, Estonia, France, Germany, Iran, Israel, Italy, Kazakhstan, Kyrgyzstan, Macedonia, Mongolia, Morocco, Pakistan, Poland, Portugal, Serbia, Slovakia, Slovenia, Spain, Romania, Russia, Syria, Tajikistan, Tunisia, Turkey, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Eucera (Tetralonia) fulvescens* (Giraud, 1863)**

Tetralonia fulvescens Giraud, 1863.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021 as *Tetraloniella fulvescens*).

General distribution: Albania, Algeria, Austria, Azerbaijan, Bulgaria, China, Croatia, France, Greece, Hungary, Italy, Kazakhstan, Morocco, Portugal, Romania, Russia, Slovakia, Spain, Switzerland, Tunisia, Turkey, and Uzbekistan (Ascher & Pickering, 2021).

Tribe: Melectini Westwood, 1840

Genus: *Melecta* Latreille, 1802

Melecta (Melecta) aegyptiaca* Radoszkowski, 1876Melecta aegyptiaca* Radoszkowski, 1876.**Distribution in Tunisia:** Kasserine (Feriana), Tunis (Carthage) (Lieftinck, 1980).**General distribution:** Algeria, Czech Republic, Egypt, France, Greece, Hungary, Israel, Italy, Morocco, Portugal, Slovakia, Spain, Syria, and Tunisia (Ascher & Pickering, 2021).***Melecta (Melecta) albifrons* (Forster, 1771)***Apis albifrons* Forster, 1771.**Distribution in Tunisia:** Tunisia: no specific locality (Ascher & Pickering, 2021).**General distribution:** Algeria, Austria, Croatia, Denmark, Egypt, England, France, Georgia, Germany, Greece, Hungary, Iran, Libya, Macedonia, Montenegro, Morocco, Poland, Portugal, Russia, Spain, Sweden, Switzerland, Syria, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).***Melecta (Melecta) duodecimmaculata* (Rossi, 1790)***Nomada duodecimmaculata* Rossi, 1790.**Distribution in Tunisia:** Tunisia: no specific locality (Ascher & Pickering, 2021).**General distribution:** Algeria, China, Croatia, Cyprus, Egypt, Greece, Iran, Iraq, Israel, Italy, Kazakhstan, Kyrgyzstan, Libya, Malta, Morocco, Portugal, Romania, Russia, Spain, Tajikistan, Tunisia, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).***Melecta (Melecta) grandis* Lepeletier, 1841***Melecta grandis* Lepeletier, 1841.**Distribution in Tunisia:** Tunis (Ascher & Pickering, 2021).**General distribution:** Algeria, Egypt, Israel, Italy, Libya, Morocco, Spain, Tunisia (Ascher & Pickering, 2021).***Melecta (Melecta) italica* Radoszkowski, 1876***Melecta italica* Radoszkowski, 1876.**Distribution in Tunisia:** Tunis (Ascher & Pickering, 2021).**General distribution:** Algeria, Croatia, Cyprus, Egypt, France, Greece, Italy, Jordan, Libya, Macedonia, Malta, Morocco, Portugal, Spain, Tunisia, and Turkey (Ascher & Pickering, 2021).***Melecta (Melecta) leucorhyncha* Gribodo, 1893***Melecta luctuosa* var. *leucorhyncha* Gribodo, 1893.**Distribution in Tunisia:** Tunis (Ascher & Pickering, 2021).**General distribution:** Albania, Algeria, Croatia, Cyprus, Egypt, France, Greece, Italy, Jordan, Libya, Malta, Morocco, Spain, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).***Melecta (Melecta) luctuosa* (Scopoli, 1770)***Apis luctuosa* Scopoli, 1770.**Distribution in Tunisia:** Tunis (Schulthess, 1924).**General distribution:** Albania, Algeria, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czech Republic, Denmark,

England, France, Georgia, Germany, Greece, Hungary, Iran, Israel, Jordan, Kazakhstan, Lithuania, Macedonia, Malta, Montenegro, Morocco, Pakistan, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, Ukraine, Uzbekistan, Turkey, and Turkmenistan (Ascher & Pickering, 2021).

Melecta (Paracrocisa) guilochei* Dusmet & Alonso, 1915Melecta guilochei* Dusmet & Alonso, 1915.**Distribution in Tunisia:** Tunisia: no specific locality (Ascher & Pickering, 2021).**General distribution:** Greece, Morocco and Tunisia (Ascher & Pickering, 2021).**Genus:** *Thyreus* Panzer, 1806***Thyreus affinis* (Morawitz, 1874)***Crocisa affinis* Morawitz, 1874.**Distribution in Tunisia:** Kasserine (Feriana) (Pérez, 1895 as *Crocisa tunensis*).**General distribution:** Albania, Algeria, Azerbaijan, Bulgaria, Croatia, Cyprus, Egypt, France, Greece, Iran, Italy, Kazakhstan, Kyrgyzstan, Libya, Montenegro, Morocco, Pakistan, Portugal, Romania, Russia, Slovakia, Spain, Tunisia, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).***Thyreus elegans* (Morawitz, 1878)***Crocisa elegans* Morawitz, 1878.**Distribution in Tunisia:** Tozeur (Lieftinck, 1968).**General distribution:** Algeria, Azerbaijan, Cyprus, Egypt, Eritrea, Iran, Kyrgyzstan, Libya, Mauritania, Morocco, Pakistan, Saudi Arabia, Sudan, Tunisia, Turkey, Turkmenistan, and United Arab Emirates (Ascher & Pickering, 2021).***Thyreus hirtus* (de Beaumont, 1939)***Crocisa hirta* de Beaumont, 1939.**Distribution in Tunisia:** Le Kef (Ascher & Pickering, 2021).**General distribution:** Algeria, France, Greece, Italy, Morocco, Portugal, Russia, Spain, Tunisia, and Turkey (Ascher & Pickering, 2021).***Thyreus histrionicus* (Illiger, 1806)***Melecta histrionica* Illiger, 1806.**Distribution in Tunisia:** Kairouan (Schulthess, 1924 as *Crocisa major*), Nabeul (Hammamet) (Lieftinck, 1968).**General distribution:** Albania, Algeria, Azerbaijan, Belarus, Bulgaria, China, Cyprus, Czech Republic, Egypt, France, Germany, Georgia, Greece, Iran, Israel, Italy, Kazakhstan, Kyrgyzstan, Libya, Macedonia, Malta, Morocco, Poland, Portugal, Romania, Russia, Saudi Arabia, Slovakia, Spain, Switzerland, Syria, Tunisia, Turkey, Tajikistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).***Thyreus orbatus* (Lepeletier, 1841)***Crocisa orbata* Lepeletier, 1841.**Distribution in Tunisia:** Tunis (Carthage), Kairouan,

Kasserine (Sbeitla) (Schulthess, 1924 as *Crocisa orbata*), Tunis (Lieftinck, 1968).

General distribution: Algeria, Israel, Libya, Morocco, Russia, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Thyreus ramosus* (Lepeletier, 1841)**

Crocisa ramosa Lepeletier, 1841.

Distribution in Tunisia: Kairouan, Gafsa (Schulthess, 1924 as *Crocisa ramosa*); Monastir, Tunis (Carthage) (Lieftinck, 1968); Bizerte (25 km S Bizerte) (Ascher & Pickering, 2021).

General distribution: Albania, Afghanistan, Algeria, Austria, Belgium, Bulgaria, Croatia, Egypt, France, Georgia, Germany, Greece, Hungary, India, Iran, Iraq, Israel, Italy, Kazakhstan, Kyrgyzstan, Libya, Macedonia, Moldova, Morocco, Oman, Pakistan, Portugal, Romania, Russia, Slovakia, Spain, Sudan, Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, United Arab Emirates, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Thyreus tricuspis* (Pérez, 1883)**

Crocisa tricuspis Pérez, 1883.

Distribution in Tunisia: Nabeul (Hammamet) (Schulthess, 1924 as *Crocisa tricuspis*).

General distribution: Algeria, Israel, Italy, Libya, Morocco, Syria, and Tunisia (Ascher & Pickering, 2021).

Genus: *Thyreomelecta* Rightmyer & Engel, 2003

***Thyreomelecta sibirica* (Radoszkowski, 1893)**

Crocisa sibirica Radoszkowski, 1893.

Distribution in Tunisia: Gafsa (Oasis Gafsa) (Meyer, 1921 as *Crocisa sibirica* (doubtful identity))

General distribution: Armenia, China, Russia and Turkey (Ascher & Pickering, 2021).

Subfamily: Nomadinae Latreille, 1802

Tribe: Ammobatini Handlirsch, 1925

Genus: *Ammobates* Latreille, 1809

***Ammobates (Ammobates) assimilis* (Warncke, 1983)**

Pasites assimilis Warncke 1983.

Distribution in Tunisia: Jendouba (10 km N Jendouba) (Warncke, 1983 as *Pasites assimilis*).

General distribution: Tunisia (Ascher & Pickering, 2021).

***Ammobates (Ammobates) hipponensis* Pérez, 1902**

Ammobates hipponensis Pérez, 1902.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria and Tunisia (Ascher & Pickering, 2021).

***Ammobates (Ammobates) minor* (Pérez, 1902)**

Phileremus minor Pérez, 1902.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Ammobates (Ammobates) rufiventris* Latreille, 1809**

Ammobates rufiventris Latreille, 1809.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Italy, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Ammobates (Ammobates) syriacus* Friese, 1899**

Ammobates syriacus Friese, 1899a.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Morocco, Israel, Jordan, and Tunisia (Ascher & Pickering, 2021).

***Ammobates (Ammobates) vinctus* Gerstäcker, 1869**

Ammobates vinctus Gerstäcker, 1869.

Distribution in Tunisia: Tunis (Ascher & Pickering, 2021).

General distribution: Austria, Bulgaria, Croatia, France, Greece, Italy, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Ammobates (Euphileremus) muticus* Spinola, 1843**

Ammobates muticus Spinola, 1843.

Distribution in Tunisia: Kairouan (Schulthess, 1924 as *Ammobates carinatus*).

General distribution: Algeria, France, Italy, Libya, Morocco, Portugal, Romania, Spain, and Tunisia (Ascher & Pickering, 2021).

***Ammobates (Euphileremus) oraniensis* (Lepeletier, 1841)**

Phileremus oraniensis Lepeletier, 1841.

Distribution in Tunisia: Tunis (Belvédère) (Schulthess, 1924); Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Armenia, Egypt, Greece, Iran, Israel, Italy, Jordan, Libya, Morocco, Romania, Spain, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

Ammobates (Xerammobates) minutissimus

Mavromoustakis, 1959

Ammobates minutissimus Mavromoustakis, 1959.

Distribution in Tunisia: Medenine (Djerba) (Mavromoustakis, 1959).

General distribution: Tunisia (Ascher & Pickering, 2021).

Genus: *Pasites* Jurine, 1807

***Pasites maculatus* Jurine, 1807**

Pasites maculatus Jurine, 1807.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Afghanistan, Algeria, Azerbaijan, Belarus, Bulgaria, China, Egypt, France, Greece, Hungary, Iran, Italy, Kazakhstan, Korea, Kyrgyzstan, Morocco, Pakistan, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Switzerland, Syria, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

Genus: *Spinopasites* Warncke, 1983

***Spinopasites spinotus* (Warncke, 1983)**

Pasites spinotus Warncke 1983.

Distribution in Tunisia: Gabes (10 km S Gabes) (Warncke, 1983 as *Pasites spinotus*).

General distribution: Tunisia (Ascher & Pickering, 2021).

Tribe: Ammobatoidini Michener, 1944

Genus: *Ammobatoides* Radoszkowski, 1867

***Ammobatoides abdominalis* (Eversmann, 1852)**

Phileremus abdominalis Eversmann, 1852.

Distribution in Tunisia: Tunisia: no specific locality (Maidl, 1922 as *Phiarus abdominalis*).

General distribution: Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Croatia, Cyprus, Czech Republic, France, Germany, Georgia, Greece, Iran, Israel, Italy, Kazakhstan, Kyrgyzstan, Macedonia, Moldova, Romania, Russia, Syria, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Ammobatoides schachtii* Schawarz, 1988**

Ammobatoides schachtii Schawarz, 1988.

Distribution in Tunisia: Kasserine (10 km E Kasserine) (Schwarz, 1988a).

General distribution: Morocco, Tunisia (Ascher & Pickering, 2021).

Genus: *Schmiedeknechtia* Friese, 1896

***Schmiedeknechtia oraniensis* Friese, 1896**

Schmiedeknechtia oraniensis Friese, 1896b.

Distribution in Tunisia: Jendouba (10 km N Jendouba), Tunis (Schwarz, 1993); Beja, Jendouba, Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Spain and Tunisia (Ascher & Pickering, 2021).

***Schmiedeknechtia verhoeffi* Mavromoustakis, 1959**

Schmiedeknechtia verhoeffi Mavromoustakis, 1959.

Distribution in Tunisia: Medenine (Djerba) (Mavromoustakis, 1959).

General distribution: Egypt, Israel and Tunisia (Ascher & Pickering, 2021).

Tribe: Epeolini Robertson, 1903

Genus: *Epeolus* Latreille, 1802

***Epeolus aureovestitus* Dours, 1873**

Epeolus aureovestitus Dours, 1873.

Distribution in Tunisia: Jendouba (South Tabarka), Ben Arous (Hammam Lif) (Bogusch, 2021).

General distribution: Algeria, Portugal, Spain and Tunisia (Ascher & Pickering, 2021).

***Epeolus collaris* Pérez, 1884**

Epeolus collaris Pérez, 1884.

Distribution in Tunisia: Bizerte (Ghar El Melh, East Bizerte), Tunis (Ezzahra, 15 km S Tunis) (Bogusch, 2021).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Epeolus fallax* Morawitz, 1872**

Epeolus fallax Morawitz, 1872.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932); Jendouba, Tunis (Bogusch, 2021).

General distribution: Algeria, France, Germany, Italy, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Epeolus flavociliatus* Friese, 1899**

Epeolus flavociliatus Friese, 1899a.

Distribution in Tunisia: Kebili (Blidet), Tozeur (Nefta, Tozeur), Tataouine (Bogusch, 2021).

General distribution: Algeria, Egypt, Iran, Mauritania, Morocco, Pakistan, Spain, and Tunisia (Ascher & Pickering, 2021).

Tribe: Nomadini Latreille, 1802

Genus: *Nomada* Scopoli, 1770

***Nomada accentifera* Pérez, 1895**

Nomada accentifera Pérez, 1895.

Distribution in Tunisia: Jendouba (Ain Draham) (Schwarz, 1977); Tunis (Ascher & Pickering, 2021).

General distribution: Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada agrestis* Fabricius, 1787**

Nomada agrestis Fabricius, 1787.

Distribution in Tunisia: Tunisia: no specific locality (Dusmet & Alonso, 1932); Kasserine (Bouchebka) (Ascher & Pickering, 2021)

General distribution: Algeria, Egypt, France, Greece, Iran, Iraq, Israel, Italy, Jordan, Libya, Morocco, Portugal, Spain, Syria, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Nomada algira* Mocsáry, 1883**

Nomada algira Mocsáry, 1883.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932 as *Nomada platyzona*); Tunis (Carthage), Kairouan (Schwarz, 1978 as *Nomada platyzona*).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Nomada barbilabris* Pérez, 1895**

Nomada barbilabris Pérez, 1895.

Distribution in Tunisia: Tunisia: no specific locality (Dusmet & Alonso, 1932 as *Nomada dido*); Ben Arous (Hammam Lif), Zaghouan (Fahs, Thuburbo Majus) (Schwarz, 1965 as *Nomada cabrerai*); Tunis (Carthage) (Schwarz, 1977 as *Nomada dido*).
General distribution: Algeria and Morocco (Ascher & Pickering, 2021).

***Nomada basalis* Herrich-Schäffer, 1839**

Nomada basalis Herrich-Schäffer, 1839.

Distribution in Tunisia: Tunis (Belvédère) (Schulthess, 1924 as *Nomada flavomaculata* var. *tripunctata*); Tunisia: no specific locality (Dusmet & Alonso, 1932 as *Nomada astarte*).

General distribution: Albania, Algeria, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Iran, Iraq, Israel, Italy, Kazakhstan, Kyrgyzstan, Macedonia, Montenegro, Morocco, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Nomada beaumonti* Schwarz, 1967**

Nomada beaumonti Schwarz, 1967.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, France, Greece, Italy, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada biblica* Schwarz, Smit & Ockermüller, 2019**

Nomada biblica Schwarz, Smit & Ockermüller, 2019.

Distribution in Tunisia: Jendouba (Tabarak), Kasserine (Thala 20 km S), Medenine (30 km Zarzis), Tataouine (55 km S Fom Tataouine), Tozeur (15 km W Nefta) (Schwarz et al., 2019).

General distribution: Jordan, Morocco and Tunisia (Ascher & Pickering, 2021).

***Nomada bifasciata* Olivier, 1811**

Nomada bifasciata Olivier, 1811.

Distribution in Tunisia: Gabes (Matmata), Kasserine (Bouchebka) (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Hungary, Libya, Liechtenstein, Macedonia, Malta, Morocco, Netherlands, Portugal, Romania, Slovakia, Spain, Switzerland, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada bispinosa* Mocsáry, 1883**

Nomada bispinosa Mocsáry, 1883.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Iran, Macedonia, Montenegro, Morocco, Poland, Portugal, Romania, Spain, Switzerland, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada blepharipes* Schmiedeknecht, 1882**

Nomada blepharipes Schmiedeknecht, 1882.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Bulgaria, Czech Republic, France, Greece, Hungary, Israel, Italy, Kazakhstan, Morocco, Portugal, Romania, Russia, Slovakia, Switzerland, Spain, Tunisia, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Nomada brevis* Saunders, 1908**

Nomada brevis Saunders, 1908.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932 as *Nomada meyeri*); Tataouine (10 km SE Fom Tataouine), Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Nomada carnifex* Mocsáry, 1883**

Nomada carnifex Mocsáry, 1883.

Distribution in Tunisia: Medenine (Djerba, SE Houmt Souk) (Ascher & Pickering, 2021).

General distribution: Algeria, France, Italy, Libya, Morocco, Portugal, Spain, Switzerland, and Tunisia (Ascher & Pickering, 2021).

***Nomada carthaginensis* Dusmet & Alonso, 1932**

Nomada carthaginensis Dusmet & Alonso, 1932.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932); Tunisia: no specific locality (Alexander & Schwarz, 1994: 240).

General distribution: Algeria, Libya and Tunisia (Ascher & Pickering, 2021).

***Nomada chrysopyga pyrosoma* Dours, 1873**

Nomada pyrosoma Dours, 1873.

Distribution in Tunisia: Kairouan (Schulthess, 1924 as *Nomada scutellata* and as *Nomada umbripennis*); Tunis (Schwarz, 1977 as *Nomada nigrita*).

General distribution: North Africa (Ascher & Pickering, 2021).

***Nomada conjungens* Herrich-Schäffer, 1839**

Nomada conjungens Herrich-Schäffer, 1839.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, England, France, Germany, Greece, Hungary, Kazakhstan, Lithuania, Macedonia, Netherlands, Poland, Portugal, Romania, Russia, Slovakia, Spain, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada coronata* Pérez, 1895**

Nomada coronata Pérez, 1895.

Distribution in Tunisia: Tunis (Carthage) (Schwarz, 1977).

General distribution: Algeria, France, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada cristata* Pérez, 1895**

Nomada cristata Pérez, 1895.

Distribution in Tunisia: Tunis (Schwarz, 1977; Ascher & Pickering, 2021).

General distribution: Algeria, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada discedens* Pérez, 1884**

Nomada discedens Pérez, 1884.

Distribution in Tunisia: Le Kef (Schulthess, 1924).

General distribution: France, Germany, Morocco, Portugal, and Spain (Ascher & Pickering, 2021).

***Nomada discrepans* Schmiedeknecht, 1882**

Nomada discrepans Schmiedeknecht, 1882.

Distribution in Tunisia: Tunisia: no specific locality (Dusmet & Alonso, 1932).

General distribution: Algeria, France, Hungary, Israel, Italy, Morocco, Portugal, Romania, Slovakia, Slovenia, Spain, Tunisia, Turkey, and Turkmenistan (Ascher & Pickering, 2021).

***Nomada distinguenda* Morawitz, 1874**

Nomada distinguenda Morawitz, 1874.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932).

General distribution: Afghanistan, Albania, Algeria, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, France, Georgia, Germany, Greece, Hungary, Iran, Italy, Lebanon, Macedonia, Malta, Montenegro, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Switzerland, Syria, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Nomada dolosa* Mocsáry, 1883**

Nomada dolosa Mocsáry, 1883.

Distribution in Tunisia: Zaghuan (Fahs, Thuburbo Majus) (Schwarz & Gusenleitner, 2013).

General distribution: Algeria, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada duplex* Smith, 1854**

Nomada duplex Smith, 1854.

Distribution in Tunisia: Tunis (Schwarz, 1977 as *Nomada cirtana*).

General distribution: Algeria, France, Italy, Morocco, Portugal, and Spain (Ascher & Pickering, 2021).

***Nomada fallax* Pérez, 1913**

Nomada fallax Pérez, 1913.

Distribution in Tunisia: Medenine (Djerba, SE Houmt Souk) (Ascher & Pickering, 2021).

General distribution: Algeria, France, Italy, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada felici* Schawarz, 1977**

Nomada felici Schawarz, 1977.

Distribution in Tunisia: Tunis (Schwarz, 1977).

General distribution: Greece and Tunisia (Ascher & Pickering, 2021).

***Nomada femoralis* Morawitz, 1869**

Nomada femoralis Morawitz, 1869.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932).

General distribution: Albania, Algeria, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Israel, Italy, Kyrgyzstan, Lithuania, Macedonia, Morocco, Poland, Portugal, Romania, Russia, Slovakia, Spain, Switzerland, Syria, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada fenestrata* Lepeletier, 1841**

Nomada fenestrata Lepeletier, 1841.

Distribution in Tunisia: Tunisia: no specific locality (Schwarz, 1965 as *Nomada vicarioi*); Kasserine (10 km NW Thelepte) (Ascher & Pickering, 2021).

General distribution: Afghanistan, Algeria, Egypt, Iran, Iraq, Israel, Jordan, Lebanon, Morocco, Pakistan, Portugal, Spain, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Nomada ferruginata* Linnaeus, 1767**

Nomada ferruginata Linnaeus, 1767.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932).

General distribution: Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, England, Lithuania, Netherlands, Poland, Romania, Russia, Serbia, Slovakia, Sweden, Switzerland, Spain, and Ukraine (Ascher & Pickering, 2021).

***Nomada flavoguttata* Kirby, 1802**

Nomada flavoguttata Kirby, 1802.

Distribution in Tunisia: Tunisia: no specific locality (Dusmet & Alonso, 1932).

General distribution: Algeria, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, China, Croatia, Czech Republic, Denmark, England, Estonia, Finland, France, Germany, Georgia, Greece, Hungary, India, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Kyrgyzstan, Lithuania, Macedonia, Morocco, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovenia, Slovakia, Spain, Switzerland, Tajikistan, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Nomada fulvicornis maroccana* Pérez, 1895**

Nomada maroccana Pérez, 1895.

Distribution in Tunisia: Tunis (Bardo) (Schwarz, 1965 as *Nomada pintosi*).

General distribution: Northwest Africa (Ascher & Pickering, 2021).

***Nomada glaucopsis* Pérez, 1890**

Nomada glaucopsis Pérez, 1890.

Distribution in Tunisia: Kairouan (Schulthess, 1924 as *Nomada pusilla*); Tunis (La Marsa) (Dusmet & Alonso, 1932 as *Nomada pusilla*).

General distribution: Algeria, Czech Republic, France, Germany, Greece, Hungary, Israel, Italy, Kazakhstan, Libya, Morocco, Portugal, Romania, Russia, Spain, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Nomada ibanezi* Dusmet & Alonso, 1915**

Nomada ibanezi Dusmet & Alonso, 1915.

Distribution in Tunisia: Tataouine (10 km SE Fom Tataouine) (Ascher & Pickering, 2021).

General distribution: Morocco and Tunisia (Ascher & Pickering, 2021).

***Nomada inermis* Pérez, 1895**

Nomada inermis Pérez, 1895.

Distribution in Tunisia: Tataouine (Ascher & Pickering, 2021).

General distribution: Tunisia (Ascher & Pickering, 2021).

***Nomada integra imperfecta* Schwarz, 1967**

Nomada cinctiventris ssp. *imperfecta* Schwarz, 1967.

Distribution in Tunisia: Tunisia: no specific locality (Alexander & Schwarz, 1994).

General distribution: Algeria, Israel and Tunisia (Ascher & Pickering, 2021).

***Nomada judaica* Schwarz & Smit, 2018**

Nomada judaica Schwarz & Smit, 2018.

Distribution in Tunisia: Tataouine (Schwarz & Smit, 2018).

General distribution: Algeria, Israel, Jordan, Syria, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Nomada keroanensis* Pérez, 1895**

Nomada keroanensis Pérez, 1895.

Distribution in Tunisia: Tunisia: no specific locality (Dusmet & Alonso, 1932); Kairouan, Tunis (Schwarz, 1977); Kairouan, Kasserine (10 km NW Thelepte) (Ascher & Pickering, 2021).

General distribution: Morocco and Tunisia (Ascher & Pickering, 2021).

***Nomada kohli* Schmiedeknecht, 1882**

Nomada kohli Schmiedeknecht, 1882.

Distribution in Tunisia: Tunisia: no specific locality (Dusmet & Alonso, 1932).

General distribution: Albania, Algeria, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Israel, Italy, Macedonia, Malta, Morocco, Portugal, Romania, Russia, Serbia, Slovenia, Slovakia, Spain, Switzerland, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada lathburiana* Kirby, 1802**

Nomada lathburiana Kirby, 1802.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, England, Finland, France, Germany, Georgia, Hungary, Italy, Kazakhstan, Latvia, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Tajikistan, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada linsenmaieri* Schwarz, 1974**

Nomada linsenmaieri Schwarz, 1974.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, France, Italy, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada litigiosa* Gribodo, 1893**

Nomada litigiosa Gribodo, 1893.

Distribution in Tunisia: Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Italy and Tunisia (Ascher & Pickering, 2021).

***Nomada maculicornis* Pérez, 1884**

Nomada maculicornis Pérez, 1884.

Distribution in Tunisia: Kasserine (Bouchebka) (Ascher & Pickering, 2021).

General distribution: Algeria, France, Italy, Morocco, Portugal, and Spain (Ascher & Pickering, 2021).

***Nomada marshamella* Kirby, 1802**

Nomada marshamella Kirby, 1802.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Austria, Azerbaijan, Bulgaria, Croatia, Czech Republic, England, Estonia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Kazakhstan, Lithuania, Macedonia, Montenegro, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Sweden, Switzerland, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada mauritanica* Lepeletier, 1841**

Nomada mauritanica Lepeletier, 1841.

Distribution in Tunisia: Medenine (Schwarz, 1977 as *Nomada poecilonota*); Kairouan, Kasserine (10 km NW Thelepte) (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Azerbaijan, Bulgaria, Chad, Croatia, Czech Republic, Egypt, France, Greece, Hungary, Iraq, Israel, Italy, Kazakhstan, Libya, Morocco, Romania, Russia, Serbia, Slovenia, Slovakia, Spain, Switzerland, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, United Arab Emirates, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Nomada numida* Lepeletier, 1841**

Nomada numida Lepeletier, 1841.

Distribution in Tunisia: Sfax (Schulthess, 1924 as *Nomada mauritanica manni*)

General distribution: Algeria, Croatia, Cyprus, Egypt, France, Greece, Hungary, Iraq, Israel, Italy, Libya, Montenegro, Morocco, Portugal, Romania, Serbia, Slovakia, Spain, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada melanura* Mocsáry, 1883**

Nomada melanura Mocsáry, 1883.

Distribution in Tunisia: Kairouan (Schwarz, 1976 as *Nomada gracilipes*).

General distribution: Algeria, Japan and Morocco (Ascher & Pickering, 2021).

***Nomada mideltiaca* Schwarz, Smit & Ockermüller, 2019**

Nomada mideltiaca Schwarz, Smit & Ockermüller, 2019.

Distribution in Tunisia: Kebili (Bir Soltane, 46 km E Douz) (Schwarz et al., 2019).

General distribution: Morocco and Tunisia (Ascher & Pickering, 2021).

***Nomada minuscula* Noskiewicz, 1930**

Nomada minuscula Noskiewicz, 1930.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Croatia, France, Germany, Greece, Hungary, Italy, Morocco, Poland, Portugal, Serbia, Slovakia, Switzerland, Spain, Tunisia, and Ukraine (Ascher & Pickering, 2021).

***Nomada mutabilis* Morawitz, 1870**

Nomada mutabilis Morawitz, 1870.

Distribution in Tunisia: Tunis (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Azerbaijan, Belarus, Bulgaria, Croatia, Czech Republic, France, Georgia, Germany, Greece, Hungary, India, Iran, Israel, Italy, Kazakhstan, Kyrgyzstan, Lithuania, Macedonia, Morocco, Nepal, Netherlands, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Switzerland, Tunisia, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Nomada nobilis* Herrich-Schäffer, 1839**

Nomada nobilis Herrich-Schäffer, 1839.

Distribution in Tunisia: Jendouba (15 km E Tabarka) (Ascher & Pickering, 2021).

General distribution: Albania, Algeria, Austria, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary,

Iran, Israel, Italy, Macedonia, Montenegro, Morocco, Poland, Portugal, Romania, Russia, Serbia, Slovenia, Slovakia, Spain, Switzerland, Syria, Tunisia, Turkey, and Ukraine (Ascher & Pickering, 2021).

***Nomada panurgina* Morawitz, 1869**

Nomada panurgina Morawitz, 1869.

Distribution in Tunisia: Tunisia: no specific locality (Maidl, 1922 as *Nomada julliani*); Kairouan, Kasserine (Sbeitla), Tunis (Carthage) (Schulthess, 1924 as *Nomada julliani*).

General distribution: Algeria, Croatia, France, Italy, Morocco, Spain, Switzerland, and Tunisia (Ascher & Pickering, 2021).

***Nomada panurginoides* Saunders, 1908**

Nomada panurginoides Saunders, 1908.

Distribution in Tunisia: Tunis (La Marsa) (Dusmet & Alonso, 1932); Gabes (Matmata) (Ascher & Pickering, 2021).

General distribution: Algeria, Morocco, Tunisia (Ascher & Pickering, 2021).

***Nomada pectoralis* Morawitz, 1877**

Nomada pectoralis Morawitz, 1877.

Distribution in Tunisia: Jendouba (1 km S Ain Draham) (Ascher & Pickering, 2021).

General distribution: Azerbaijan, Bulgaria, Croatia, France, Greece, Hungary, Iran, Morocco, Romania, Russia, Slovakia, Spain, Tunisia, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Nomada pleurosticta* Herrich-Schäffer, 1839**

Nomada pleurosticta Herrich-Schäffer, 1839.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Austria, Belgium, Bulgaria, France, Germany, Greece, Hungary, Iran, Italy, Netherlands, Portugal, Russia, Slovakia, Spain, Switzerland, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Nomada podagrica* Gribodo, 1893**

Nomada podagrica Gribodo, 1893.

Distribution in Tunisia: Tunisia: no specific locality (Alexander & Schwarz, 1994).

General distribution: Algeria and Tunisia (Ascher & Pickering, 2021).

***Nomada pruinosa* Pérez, 1895**

Nomada pruinosa Pérez, 1895.

Distribution in Tunisia: Kairouan, Kasserine (10 km NW Thelepte) (Ascher & Pickering, 2021).

General distribution: Algeria, Egypt, Israel, Libya, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada rubiginosa* Pérez, 1884**

Nomada rubiginosa Pérez, 1884.

Distribution in Tunisia: Tunisia: no specific locality (Dusmet & Alonso, 1932: 233; Alexander & Schwarz, 1994).

General distribution: Algeria, France, Israel, Italy, Morocco, Portugal, Spain, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Nomada sabulosa* Radoszkowski, 1876**

Nomada sabulosa Radoszkowski, 1876.

Distribution in Tunisia: Kasserine (10 km NW Thelepte) (Ascher & Pickering, 2021).

General distribution: Algeria, Egypt, Israel, Morocco, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada sanguinea* Smith, 1854**

Nomada sanguinea Smith, 1854.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, France, Italy, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Nomada sexfasciata* Panzer, 1799**

Nomada sexfasciata Panzer, 1799.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Azerbaijan, Belgium, Bulgaria, Croatia, Czech Republic, England, France, Germany, Greece, Hungary, Iran, Israel, Italy, Kazakhstan, Liechtenstein, Luxemburg, Montenegro, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Spain, Switzerland, Sweden, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Nomada sheppardana* (Kirby, 1802)**

Apis sheppardana Kirby, 1802.

Distribution in Tunisia: Tunisia: no specific locality (Schwarz, 1988b as *Nomada microsticta*).

General distribution: Algeria, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Egypt, England, France, Germany, Greece, Hungary, Ireland, Japan, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Slovakia, Spain, Switzerland, and Tunisia (Ascher & Pickering, 2021).

***Nomada stigma* Fabricius, 1804**

Nomada stigma Fabricius, 1804.

Distribution in Tunisia: Jendouba (11 km S Tabarka, Kataria meadow) (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Azerbaijan, Belgium, Bulgaria, Czech Republic, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Kazakhstan, Kyrgyzstan, Latvia, Macedonia, Netherlands, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Tajikistan, Tunisia, Turkey, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

***Nomada succincta* Panzer, 1798**

Nomada succincta Panzer, 1798.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Azerbaijan, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland,

France, Germany, Greece, Hungary, Israel, Italy, Jordan, Kazakhstan, Lithuania, Macedonia, Morocco, Netherlands, Poland, Portugal, Romania, Russia, Spain, Switzerland, Syria, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Nomada tridentirostris* Dours, 1873**

Nomada tridentirostris Dours, 1873.

Distribution in Tunisia: Jendouba (11 km S Tabarka, Kataria meadow) (Ascher & Pickering, 2021).

General distribution: Algeria, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Iran, Israel, Italy, Macedonia, Morocco, Poland, Portugal, Russia, Slovakia, Slovenia, Spain, Switzerland, Tunisia, and Turkey (Ascher & Pickering, 2021).

Subfamily: Xylocopinae Latreille, 1802

Tribe: Ceratinini Latreille, 1802

Genus: *Ceratina* Latreille, 1802

***Ceratina (Ceratina) cucurbitina* (Rossi, 1792)**

Apis cucurbitina Rossi, 1792.

Distribution in Tunisia: Ben Arous (Hammam Lif) (Schulthess, 1924); Beja (Teboursouk, 1 km S on M.R. 5; Teboursouk, Dougga ruins on S.R. 74; Nefza, Djebel Abiod, 12 km S on S.R. 52), Bizerte (Utique ruins, Jefna on M.R.7; Jefna, 2.1 km W on M.R. 7), Jendouba (Ain Draham, 12.4 km S on M.R. 17; Ain Draham, 5.6 km S on M.R. 17; Ain Draham, Beni Métir Dam on S.R. 65; Tabarka, 14 km E on M.R. 7; Tabarka, 3.5 km S on M.R. 17; Tabarka, 16.5 km S on M.R. 17; Ain Sebaa, 6.2 km E on M.R. 7), Kasserine (Thala, on M.R. 17), Le Kef (Le Kef, 26 km NE on M.R. 5), Nabeul (Grombalia, 1 km NW on M.R. 1; Kélibia, 4 km NE on S.R. 27; Menzel Temime, 1.4 km SW on S.R. 27), Sousse (Bouficha, 10.4 km N on M.R. 1), Siliana (Makthar, North city limits; Makthar, 16 km E on M.R. 12 or 0.5 km E junction la Kesra road), Tunis (La Marsa), Zaghouan (Pont du Fahs, 23 km NE on M.R. 3; Pont du Fahs, 19 km SW on M.R. 4; Pont du Fahs, 20 km SW on M.R. 4) (Daly, 1983).

General distribution: Albania, Algeria, Azerbaijan, Bosnia, and Herzegovina, Bulgaria, France, Germany, Greece, Hungary, Iran, Israel, Italy, Jordan, Libya, Macedonia, Montenegro, Morocco, Poland, Portugal, Russia, Romania, Serbia, Slovenia, Slovakia, Spain, Switzerland, Syria, Tunisia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Ceratina (Dalyatina) parvula* Smith, 1854**

Ceratina parvula Smith, 1854.

Distribution in Tunisia: Jendouba (Ain Draham, 7 km S on M.R. 17 and 2 km NE on S.R. 65; Tabarka, 14 km E on M.R. 7), Zaghouan (Pont du Fahs, 23 km NE on M.R.3) (Daly, 1983).

General distribution: Algeria, Bulgaria, Croatia, Cyprus, Egypt France, Greece, Italy, Libya, Macedonia, Montenegro, Morocco, Portugal, Spain, Syria, Tunisia, Turkey, and Turkmenistan (Ascher & Pickering, 2021).

***Ceratina (Euceratina) acuta* Friese, 1896**

Ceratina acuta Friese, 1896a.

Distribution in Tunisia: Tunisia no specific locality (Friese, 1896a, 1901; Maidl, 1922).

General distribution: Albania, Armenia, Austria, Bulgaria, Croatia, Czech Republic, Germany, Georgia, Greece, Iran, Israel, Kazakhstan, Lebanon, Macedonia, Romania, Russia, Serbia, Slovakia, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Ceratina (Eucratina) albosticta* Cockerell, 1931**

Ceratina dallatorreana albosticta Cockerell, 1931.

Distribution in Tunisia: Bizerte (Jefna on M.R. 7), Jendouba (Ain Draham, 5.6 km S on M.R.17; Ain Draham, 12.4 km S on M.R. 17), Nabeul (Grombalia, 1 km NW on M.R.1; Kélibia, 4 km NE on S.R. 27), Siliana (Makthar, North city limits), Tunis (La Marsa) (Daly, 1983).

General distribution: Algeria, Morocco, Spain and Tunisia (Ascher & Pickering, 2021).

***Ceratina (Eucratina) callosa* (Fabricius, 1794)**

Apis callosa Fabricius, 1794.

Distribution in Tunisia: Ben Arous (Hammam Lif), Tunis (Carthage) (Schulthess, 1924); Beja (Teboursouk, 1 km S on M.R. 5; Teboursouk, Dougga ruins on S.R. 74), Gafsa (Ksour), Kairouan (Kairouan, 17 km NW ON M.R. 3), Le Kef (Le Kef, 22.5 km SW on M.R. 17; Le Kef, 26 km NE on M.R. 5), Nabeul (Grombalia, 1 km NW on M.R.1), Siliana (Makthar, 13 km E on M.R. 12), Zaghuan (Pont du Fahs, 23 km NE on M.R. 3; Pont du Fahs, 19 km SW on M.R. 4; Draa Ben Jouder, junction M.R.3/S.R. 123) (Daly, 1983).

General distribution: Algeria, Austria, France, Germany, Italy, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

***Ceratina (Eucratina) chalybea* Chevrier, 1872**

Ceratina chalybea Chevrier, 1872.

Distribution in Tunisia: Jendouba (Ain Draham, 5.6 km S on M.R.17; Ain Draham, 4.4 km S on M.R.17; Tabarka, 16.5 km S on M.R. 17), Nabeul (Menzel Temime, 1.4 km SW on S.R. 27), Siliana (Makthar, North city limits; Makthar, 16 km E on M.R. 12 or 0.5 km E junction la Kesra road) (Daly, 1983).

General distribution: Albania, Algeria, Austria, Azerbaijan, Bulgaria, Croatia, France, Georgia, Germany, Greece, Iran, Italy, Jordan, Macedonia, Montenegro, Morocco, Portugal, Romania, Russia, Slovakia, Switzerland, Syria, Spain, Tunisia, Turkey, Turkmenistan, and Ukraine.(Ascher & Pickering, 2021).

***Ceratina (Eucratina) cyanea* (Kirby, 1802)**

Apis cyanea Kirby, 1802.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Albania, Algeria, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, England, France, Germany, Georgia, Greece, Iran, Italy, Kazakhstan, Libya, Lithuania, Malta, Montenegro, Netherlands, Norway, Portugal, Romania, Russia, Serbia,

Spain, Sweden, Switzerland, Turkey, Turkmenistan, and Ukraine (Ascher & Pickering, 2021).

***Ceratina (Eucratina) dallatorreana* Friese, 1896**

Ceratina dallatorreana Friese, 1896a.

Distribution in Tunisia: Beja (Nefza, Djebel Abiod, 12 km S on S.R. 52), Bizerte (Jefna on M.R.7; Jefna, 2.1 km W on M.R. 7), Jendouba (Ain Draham, 5.6 km S on M.R. 17; Ain Draham, 12.4 km S on M.R. 17; Ain Sebaa, 6.2 km E on M.R. 7; Fernana, 3.1 km NW on S.R. 65; Tabarka, 14 km E on M.R. 7; Tabarka, 3.5 km S on M.R. 17), Le Kef (Le Kef, 26 km NE on M.R. 5), Nabeul (Grombalia, 1 km NW on M.R. 1; Menzel Temime, 1.4 km SW on S.R. 27; Kelibia, 4 km NE on S.R. 27), Siliana (Makthar, North city limits; Makthar 16 km E on M.R. 12 or 0.5 km E junction la Kesra road), Sousse (Bouficha, 10.4 km N on M.R. 1), Tunis (La Marsa) (Daly, 1983).

General distribution: Albania, Algeria, Bulgaria, Cyprus, France, Georgia, Greece, Iran, Israel, Italy, Kyrgyzstan, Malta, Montenegro, Morocco, Portugal, Romania, Slovenia, Spain, Syria, Tunisia, Turkey, Turkmenistan, Ukraine, United States, and Uzbekistan (Ascher & Pickering, 2021).

***Ceratina (Eucratina) dentiventris* Gerstäcker, 1869**

Ceratina dentiventris Gerstäcker, 1869.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Croatia, France, Georgia, Germany, Greece, Israel, Italy, Morocco, Portugal, Romania, Spain, Tunisia, and Turkey (Ascher & Pickering, 2021).

***Ceratina (Eucratina) maghrebensis* Daly, 1983**

Ceratina maghrebensis Daly, 1983.

Distribution in Tunisia: Jendouba (Tabarka), Kairouan (Kairouan, 17 km NW on M.R. 3), Kasserine (Sbeitla), Zaghuan (Pont du Fahs, 19 km SW on M.R. 4; Pont du Fahs, 23 km NE on M.R. 3; Pont du Fahs, 20 km SW on M. R.4) (Daly, 1983).

General distribution: Algeria, Morocco and Tunisia (Ascher & Pickering, 2021).

***Ceratina (Eucratina) mocsaryi* Friese, 1896**

Ceratina mocsaryi Friese, 1896a.

Distribution in Tunisia: Jendouba (Ain Draham, 7 km S on M.R. 17 and 2 km NE on S.R. 65; Ain Draham, 15 km S on M.R. 17; Ain Draham, 7 km S on M.R. 17 and 2.8 km NE on S.R. 65; Ain Draham, 5.6 km S on M.R. 17; Ain Draham, 12.4 km S on M. R.17; Ain Draham, 4.4 km S on M.R. 17; Ain Draham, Beni Métir Dam on S.R. 65; Tabarka, 14 km E on M.R. 7; Tabarka, 16.5 km S on M.R. 17; Ain Sebaa, 6.2 km E on M.R. 7; Fernana, 11.3 km NW on S.R. 65), Nabeul (Grombalia, 1 km NW on M.R. 1), Siliana (Makthar, 16 km E on M.R. 12 or 0.5 km E junction la Kesra road) (Daly, 1983).

General distribution: Algeria, Armenia, France, Italy, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

Ceratina (Eucertina) saundersi* Daly, 1983Ceratina saundersi* Daly, 1983.

Distribution in Tunisia: Gabes (3 km SW Matmata) (Ascher & Pickering, 2021); Beja (Nefza, Djebel Abiod, 12 km S on S.R. 52), Bizerte (Jefna on M.R. 7), Jendouba (Ain Sebaa, 6.2 km E on M.R. 7, Fernana, 3.1 km NW on S.R. 65; Tabarka, 16.5 km S on M.R. 17), Kasserine (Thala, 13 km SE on M.R. 17), Le Kef (Le Kef, 26 km NE on M.R. 5), Nabeul (Grombalia, 1 km NW on M.R. 1), Siliana (Makthar, North city limits; Makthar, 16 km E on M.R. 12 or 0.5 km E junction la Kesra road); Sousse (Bouficha, 10.4 km N on M.R. 1), Tunis (La Marsa), Zaghouan (Pont du Fahs, 19 km SW on M.R. 4; Pont du Fahs, 20 km SW on M.R. 4) (Daly, 1983).

General distribution: Algeria, Italy, Libya, Morocco, Portugal, Spain, and Tunisia (Ascher & Pickering, 2021).

Tribe: Xylocopini Latreille, 1802

Genus: *Xylocopa* Latreille, 1802

Xylocopa (Copoxya) iris* (Christ, 1791)Apis iris* Christ, 1791.

Distribution in Tunisia: Tunis (Quamart) (Vicidomini, 2005).

General distribution: Afghanistan, Albania, Algeria, Austria, Azerbaijan, Bosnia and Herzegovina, Croatia, France, Bulgaria, Georgia, Germany, Greece, Hungary, Iran, Israel, Italy, Kazakhstan, Libya, Macedonia, Moldova, Morocco, Portugal, Romania, Russia, Serbia, Slovenia, Slovakia, Spain, Switzerland, Tajikistan, Tunisia, Turkey, Turkmenistan, Ukraine, and Uzbekistan (Ascher & Pickering, 2021).

Xylocopa (Xylocopa) violacea* (Linnaeus, 1758)Apis violacea* Linnaeus, 1758.

Distribution in Tunisia: Tunisia: no specific locality (Ascher & Pickering, 2021).

General distribution: Algeria, Azerbaijan, Egypt, Georgia, Indonesia, Iran, Iraq, Israel, Kazakhstan, Libya, Morocco, Russia, Syria, Tajikistan, Tunisia, Turkey, and Turkmenistan, very common in Europe (Ascher & Pickering, 2021).

Discussion

Our study states that the Tunisian fauna of Apidae is composed of 184 species and subspecies belonging to 19 genera. The reported fauna is rich in terms of genera but not in species compared to Moroccan fauna where have been reported 15 genera and 241 species (Lhomme et al., 2020).

An uncertain identification for some species were noticed leading to the need for a re-examination of the specimens such as of *Nomada femorata* reported from Tunis province (Belvédère, Carthage) and *Anthophora* sp. from Tozeur (Schulthess, 1924). Also, Dusmet & Alonso (1932) reported *Nomada* species from Tunisia (*Nomada discrepans* Schmiedeknecht, 1882 var.?, *Nomada* n. sp. ? (*furva* Panz. var. ?), *Nomada* sp. ? (*immaculata* Mor. ?)) but without a clear identification. This may correspond to species already mentioned and for this reason they are excluded from the present list.

Some researchers (Maidl, 1922; Schulthess, 1924; Dusmet & Alonso, 1932; Ascher & Pickering, 2021) reported some species and subspecies from Tunisia, but without mentioning the specific locality. The total number of these taxa were 54 and the confirmation of their presence in Tunisia may be confirmed.

Geographically, Tunisia is divided into three main regions: North, Center and South regions (Fig 1). The North region is the most diverse in Apidae species with about 80% of the total number of species in the country (Fig 4). This may be related to edaphic, climatic and vegetation conditions characterizing this region which are favorable to the biology of those species. The East Center part of Tunisia including the Tunisian coast is the least rich area with only 16 species and subspecies. Future investigations in this area are required to contribute to knowledge of biodiversity of the apids in Tunisia (Figs 3, 4). A total of species recorded, only five are endemic to Tunisian fauna (Table 1).

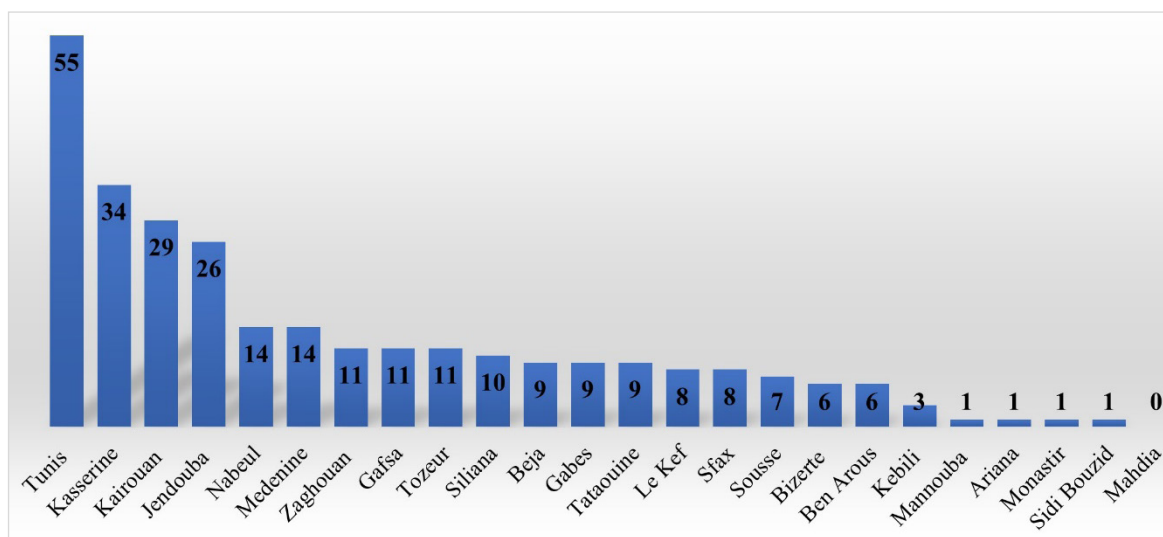


Fig 3. Apidae species number per province in Tunisia.

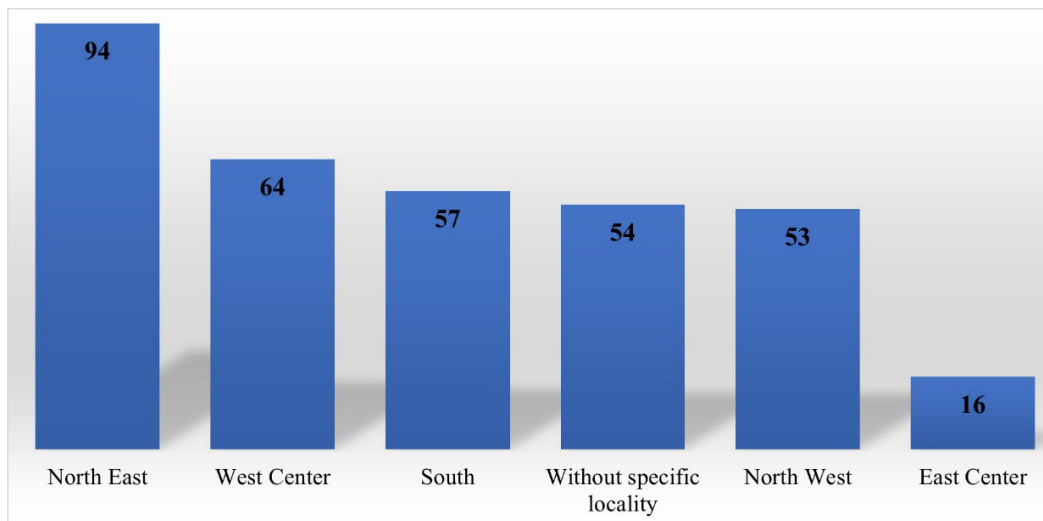


Fig 4. Apidae species number per region in Tunisia.

Table 1. Endemic and near endemic Apidae species in Tunisia. The symbol “+” means presence.

Species	Algeria	Libya	Morocco	Tunisia
<i>Ammobates</i> Latreille, 1809				
<i>A. assimilis</i> (Warncke, 1983)				+
<i>A. hipponensis</i> Pérez, 1902	+			+
<i>A. minor</i> (Pérez, 1902)	+		+	+
<i>A. minutissimus</i> Mavromoustakis, 1959				+
<i>Ammobatoides</i> Radoszkowski, 1867				
<i>A. schachti</i> Schawarz, 1988			+	+
<i>Anthophora</i> Latreille, 1803				
<i>A. holoxantha</i> Pérez, 1895	+		+	+
<i>Ancyla</i> Lepeletier, 1841				
<i>A. brevis</i> Dours, 1873	+		+	+
<i>Ceratina</i> Latreille, 1802				
<i>C. maghrebensis</i> Daly, 1983	+		+	+
<i>Epeolus</i> Latreille, 1802				
<i>E. collaris</i> Pérez, 1884	+		+	+
<i>Eucera</i> Scopoli, 1770				
<i>E. alopex</i> Risch, 1999				+
<i>E. bequaerti</i> Alfken, 1914	+		+	+
<i>E. genovefae</i> Vachal, 1907	+		+	+
<i>E. polita</i> Pérez, 1895		+	+	+
<i>E. spatulata</i> Gribodo, 1893	+		+	+
<i>E. vachali</i> Pérez, 1895	+		+	+
<i>E. warnckei</i> Risch, 1999			+	+
<i>Nomada</i> Scopoli, 1770				
<i>N. algira</i> Mocsáry, 1883	+		+	+
<i>N. brevis</i> Saunders, 1908	+		+	+
<i>N. carthaginensis</i> Dusmet & Alonso, 1932	+	+		+
<i>N. ibanezi</i> Dusmet & Alonso, 1915			+	+
<i>N. inermis</i> Pérez, 1895				+
<i>N. keroanensis</i> Pérez, 1895			+	+
<i>N. mideltiaca</i> Schwarz, Smit & Ockermüller, 2019			+	+
<i>N. panurginoides</i> Saunders, 1908	+		+	+
<i>N. podagrica</i> Gribodo, 1893	+			+
<i>Spinopasites</i> Warncke, 1983				
<i>S. spinotus</i> (Warncke, 1983)				+

This list represents the first attempt to review Apidae fauna of Tunisia. More investigations on wild bees are necessary to improve our knowledge to this fauna in the country.

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