

DAPSA GEMINA AUDISIO & DE BIASE, 1996,
A NEW SPECIES OF THE EUROPEAN FAUNA
(Coleoptera, Endomychidae)

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INTRODUCTION

Members of the Lycoperdine genus *Dapsa* Latreille, 1829, with the single exception of the uncommon but widespread *D. trimaculata* Motschulsky, 1835, are among the rarest W-Palaeartic beetles, and in Western Mediterranean are mostly represented by species endemic to restricted coastal or subcoastal areas (Audisio, De Biase & Zampetti 1992; Audisio & De Biase 1996, 2003; Tomaszewska, 2005-2010; 2007), where they live as microphagous on rotten vegetal debris accumulated along sea shores, coastal salt marshes, and coastal forests.

During entomological research carried out by the second co-author (G.R.) in the Pontine Islands (central Italy, Latium, Latina province), among several other interesting beetles belonging to different families, a series of 6 males and 3 females of a *Dapsa* obviously not belonging to any known Italian member of this genus (*D. trimaculata* Motschulsky, 1835, *D. obscurissima* Pic, 1902, and *D. opuntiae* Reitter, 1884: Audisio & Zampetti 1983; Audisio, De Biase & Zampetti 1992; Audisio & De Biase 1996; Tomaszewska 2005-2010, 2007), was discovered in the Ventotene Island (the southernmost of the larger Islands composing the Pontine Archipelago). Accurate morphological analyses allowed us to attribute all the studied specimens to *Dapsa gemina* Audisio & De Biase, 1996 (figs 1, 2), a species previously only known on the type specimens, collected in NE Algeria near Collo (Audisio & De Biase 1996).

The present note is then aimed to report these new interesting

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records, in order to better define both morphology and geographical distribution of this rare and poorly known taxon.

DEPOSITORIES. The studied material is preserved in the P. Leo's collection, Cagliari (CLC), in the G. Ruzzante's collection, Cagliari (CRC), and in the P. Audisio's collection, Zoological Museum, "Sapienza" Rome University (MZUR).

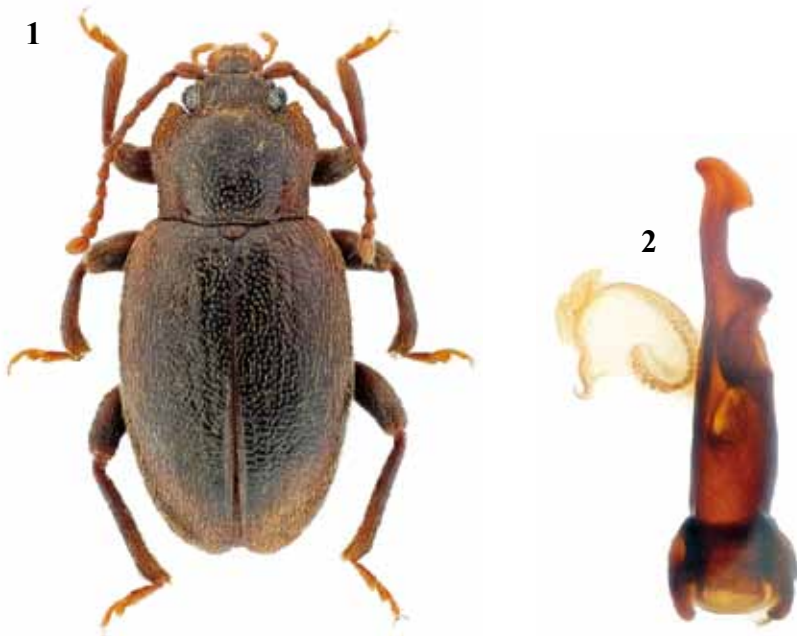
Dapsa gemina Audisio & De Biase, 1996

MATERIAL EXAMINED. Italy, Latium, Latina Province, Pontine Archipelago, Ventotene Island, Semaforo, 80 m, 40°47'24"N, 13°25'08"E, X.2010, G. Ruzzante leg., 6 males and 3 females (CLC, CRC, MZUR).

DESCRIPTION OF THE COLLECTING AREA. The studied specimens were all collected after intense rainfalls, while climbing on a drywall, at the edge of a Mediterranean garrigue with interspersed specimens of alien plants, such as *Carpobrotus acinaciformis* (L.) L. Bolus and *Opuntia ficus-indica* (L.) Mill.

TAXONOMY. The specimens from Ventotene Island fit well the original description of this species (Audisio & De Biase 1996), except for the slightly shorter and wider distal lobe of the aedeagus (fig. 2; see for comparison fig. 13f in Audisio & De Biase 1996), which probably witnesses for a moderate differentiation of the Italian population. However, considering the slight interpopulational variability in the shape of male genitalia observed in other North African species of the *D. barbara* and *D. sellata* complexes (Audisio & De Biase 1996), we prefer not to formally differentiate this population from the nominotypical form from NE Algeria.

GEOGRAPHICAL DISTRIBUTION. This species, as recently reported by Audisio & De Biase (1996), was previously known only from the type locality in Northern Algeria near Collo (approximately 36°59'N, 06°34'E). The disjunct distributional range of *D. gemina* is then very similar to that known for the related *Dapsa obscurissima* (= *D. thyrrena* Audisio & Zampetti, 1983; Audisio, De Biase & Zampetti, 1992; Audisio & De Biase 1996), known from NE Algeria (Skikda area) and from Italian Tyrrhenian coasts (southern Latium to southern Tuscany). Similar distributional ranges are also shared by several other beetles such as the Tenebrionid *Pseudoseriscius normandi* Español, 1949 (with the nominal subspe-



Figs 1-2 – Habitus of *Dapsa gemina* Audisio & De Biase, 1996, male specimen from Italy, Latium, Pontine Archipelago, Ventotene Island, Semaforo, 80 m, X.2010, G. Ruzzante leg. (length: 4.7 mm) (1); aedeagus (dorsal view, with partly protruded inner sac) of *Dapsa gemina* Audisio & De Biase, 1996, male specimen from Italy, Latium, Pontine Archipelago, Ventotene Island, Semaforo, 80 m, X.2010, G. Ruzzante leg. (2) (length: 1.3 mm) (Photos: Marcello Romano).

cies from N Tunisia and the moderately differentiated ssp. *pacificii* Leo, 1982 from Latium: Leo 1982), or the Nitidulid *Xenostrogylus lateralis* Chevrolat, 1861 (known from N Algeria, N Tunisia, Sicily, and western areas of southern and central Italy: Audisio 1993). Both mentioned *Dapsa* species mostly colonize subcoastal marsh and salt habitats dominated by *Salicornia*, as well as garrigue and forest areas close to river mouths, and is not then to exclude that colonization of the Tyrrhenian coasts were allowed through a relatively recent (late Pleistocene ?) passive diffusion of both beetle species from North Africa, vehiculated by assemblages of vegetal debris transported by the sea.

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RIASSUNTO

Dapsa gemina Audisio & De Biase, 1996, specie nuova per la fauna europea (Coleoptera, Endomychidae).

Nel corso di alcune ricerche entomologiche nelle Isole Ponziane (Lazio, provincia di Latina), è stata per la prima volta accertata la presenza in Italia e in Europa di *Dapsa gemina* Audisio & De Biase, 1996 (Coleoptera, Endomychidae), specie nordafricana conosciuta esclusivamente sulla base del materiale tipico, raccolto nelle aree costiere dell'Algeria Nord-orientale. Il nuovo reperto è brevemente discusso anche alla luce della presenza lungo le coste tirreniche laziali e toscane dell'affine *Dapsa obscurissima* Pic, 1904, che pure manifesta un'analogia distribuzione geografica disgiunta, nel quadro di possibili penetrazioni tardo Pleistoceniche di specie costiere perifluviali e igrofile dal Nord Africa, forse attraverso il veicolamento di ammassi di detriti vegetali trasportati dalle correnti marine.

SUMMARY

During entomological research carried out in the Pontine Islands (central Italy, Latium, Latina province), *Dapsa gemina* Audisio & De Biase, 1996 (Coleoptera, Endomychidae), previously known only from coastal areas of NE Algeria, has been recorded in Italy and in Europe for the first time. This new record suggested the authors to shortly discuss the possible scenario of a relatively recent, late Pleistocene passive transportation of *Dapsa gemina* and of the related *D. obscurissima* Pic, 1904 (sharing a very similar disjunct geographic distribution) by marine drift of masses of vegetal debris from North Africa.

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