



<http://dx.doi.org/10.11646/zootaxa.3920.4.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:A1A05A15-1E5D-4FFD-B997-844FF1FA0DBD>

A review of the genus *Selasia* (Elateridae: Agrypninae: Drilini) in the Palearctic Region

SARKA TRLLOVA & ROBIN KUNDRATA¹

Department of Zoology, Faculty of Science, Palacky University, 17. listopadu 50, 771 46, Olomouc, Czech Republic

¹Corresponding author. E-mail: robin.kundrata@upol.cz

Abstract

The six species of the soft-bodied elaterid genus *Selasia* Laporte (Agrypninae: Drilini) from the Palearctic Region are reviewed: *S. arabica* Geisthardt, 2003 (Yemen, Oman, The Kingdom of Saudi Arabia), *S. atriventris* Pic, 1914 (India, Nepal), *S. boruckae* Kundrata, 2012 (Nepal), *S. homhilia* Geisthardt, 2003 (Yemen: Socotra), *S. merkli* Kundrata, 2012 (Pakistan), and *S. socotrana* Kundrata, 2012 (Yemen: Socotra). *Selasia arabica* and *S. atriventris* are recorded for the first time from Oman and Nepal, respectively. The variability in coloration of *S. arabica* is discussed. *Selasia bleusei* Olivier, 1913 from Rhodes is redescribed and transferred to *Drilus* Olivier, 1790 as *D. bleusei* (Olivier, 1913), comb. nov. A differential diagnosis is given and taxonomically important characters are figured. An identification key as well as data on the distributions, type depositories and bibliographic references of each Palearctic *Selasia* species are provided.

Key words: Elateroidea, *Drilus*, Arabian Peninsula, Rhodes, Himalaya, variability, taxonomy, distribution, new combination

Introduction

The genus *Selasia* was originally described by Laporte (1836) from western Africa. Along with *Drilus* Olivier, 1790 and *Malacogaster* Bassi, 1834, *Selasia* has always been a taxonomically stable member of Drilini (formerly the family Drilidae; Olivier 1910, Wittmer 1944, Crowson 1972, Kundrata & Bocak 2011). The males are capable of flight, but the considerably larger females are wingless and larviform (Barker 1969, Bocak *et al.* 2010). *Selasia* larvae are important predators of the land snails (Williams 1951, Barker 1969), but there is no information on the biology and ecology for the majority of species. The species level classification of this group is chaotic and many species are known only from brief original descriptions without information on intra- and interspecific variability. Several species originally described in *Selasia* were recently transferred to other lineages (*e.g.*, Wittmer 1979, Ivie & Barclay 2011, Kundrata 2012a). Most *Selasia* species are known from the Afrotropical Region (~50 spp.) and only five and seven species occur in the Oriental and Palearctic Regions, respectively (Wittmer 1944, 1989; Geisthardt 2003, 2007a, b; Kundrata 2012a, b).

The first *Selasia* species described from the Palearctic Region were *Selasia bleusei* Olivier, 1913 from Rhodes island (Greece) and *S. atriventris* Pic, 1914a from northern India (Wittmer 1944). Since then, no further reports of Palearctic *Selasia* were made for 90 years until Geisthardt (2003) described two species from the Arabian Peninsula and Socotra. Kundrata (2012a, b) added two new species from the Himalaya and one from Socotra.

Herein, we summarize available information on the Palearctic *Selasia* species including the type depositories, literature and distribution, point out the intraspecific variability within *S. arabica* from the Arabian Peninsula, and redescribe *S. bleusei* from Rhodes and discuss its taxonomic position.

margin with conspicuous tooth in middle part (Fig. 16). Maxillary palpi slender, apical palpomeres obliquely cut; labial palpi tiny, apical palpomeres of the same shape as maxillary ones. Antennae 11-segmented, reaching one third of elytral length, scapus robust, pedicel short, small, antennomere 3 rectangular, about 2 times longer than pedicel, antennomeres 4–10 pectinate, subequal in length, lamellae flattened, apical antennomere simple, longest, about 2 times longer than stem of penultimate antennomere (Fig. 18).

Pronotum transverse, widest at 1/3, at hind angles 1.2 times wider than anteriorly, and 1.6 times wider posteriorly than length at midline. Anterior margin bisinuate, lateral margins constricted in anterior part, convex, posterior margin slightly convex, posterior angles almost rectangular (Fig. 17); surface of disc sparsely covered with shallow punctures, with sparse semierect setae, pubescence denser at margins. Scutellum flat, triangle-shaped. Prosternum transverse, with frontal margin slightly convex, prosternal process short, wide, slightly elevated in middle part. Mesoventrite v-shaped, with frontal margin widely emarginate. Metaventrite large, trapezoidal, shallowly punctured. Elytra subparallel-sided, 1.8 times longer than width at humeri, tapered apically, with longitudinal keels running from humeri towards apex (Fig. 15). Each elytron covered with semierect pubescence, sparse basally and dense at lateral and posterior margins. Abdomen slender, ventrites with shallow punctures, with sparse, long hairs, denser at margins; penultimate ventrite slightly concave apically. Legs slender, slightly compressed, with sparse, long, semierect setae, coxae long, robust, trochanters slender, obliquely attached to femora, five tarsomeres, tarsomere 4 shortest, apical tarsomere long, claws simple, slender, slightly curved.

Male genitalia stout, with phallus strong, considerably curved, with hook subapically on dorsal side, parameres with inner apical parts membranous; phallobase robust, widely U-shaped (Fig. 21).

Measurements. BL 8.6 mm, EL 6.0 mm, WHe 2.1 mm, WHum 3.4 mm, PL 1.6 mm, PWA 2.2 mm, PWP 2.6 mm, Edist 1.4 mm, Ediam 0.6 mm.

Distribution. Greece: Rhodes. Only the type specimen is known to authors, but Wittmer (1935) mentioned additional single specimen from Rhodes, Neocoria.

Remarks. *Selasia bleusei* is transferred to *Drilus* based on the presence of the V-shaped mesoventrite and the shape of lateral pronotal margins (Figs 17, 19). This species has pectinate antennae (Fig. 18). Although the pectinate antennae can be found in several *Selasia* species in Africa (e.g., Wittmer 1989), they are more typical for the Mediterranean *Drilus* species (Kundrata *et al.* 2014), whilst the vast majority of *Selasia* spp. have flabellate antennae with long lamellae (Figs 1–14).

***Paulusiella sweihana* (Geisthardt, 2009)**

Selasia sweihana Geisthardt, 2009: 159.

Remarks. Geisthardt (2009) described *S. sweihana* from the United Arab Emirates. Ivie & Barclay (2011) transferred this species to *Paulusiella* Löbl, 2007 (*Elateridae incertae sedis*).

In the original description of *S. sweihana*, on page 162 Geisthardt (2009) used the name *S. emerita* instead of *S. sweihana*. This name was probably used for this species in earlier versions of manuscript and therefore, it is a *nomen nudum* according to the Code (ICZN 1999).

Acknowledgements

This study was supported by the internal grant (IGA) of Faculty of Science UP (Olomouc). The short-term stays of RK in the Koninklijk Museum voor Midden-Afrika, Tervuren (BE-TAF 2193) and in the Naturhistorisches Museum, Vienna (AT-TAF 3921) were funded by the EU-SYNTHESYS grants. This support is gratefully acknowledged. We are very obliged to curators and colleagues for providing us with the material in their care, and to N. Gunter (Olomouc) and M. Jäch (NHMW) for critical comments on the earlier versions of the manuscript.

References cited

Barker, J.F. (1969) Notes on the life cycle and behaviour of the drilid beetle *Selasia unicolor* (Guérin). *Proceedings of the*

Royal Entomological Society of London, Series A, 44, 169–172.

<http://dx.doi.org/10.1111/j.1365-3032.1969.tb00824.x>

- Bassi, C.A. (1834) *Malacogastre*. *Malacogaster*. Bassi. In: Guérin-Méneville, F.E. (Ed.), *Magasin de Zoologie. Troisième Année. Classe IX. Insectes*. Libraire de Lequien Fils, Paris [1833], pp. 1–3, pl. 99.
- Bocak, L. (2007) Drilidae. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 4*. Apollo Books, Stenstrup, pp. 209–210. [Denmark]
- Bocak, L., Branham, M.A. & Kundrata, R. (2010) Family Drilidae Blanchard, 1845, In: Leschen, R.A.B., Beutel, R.G. & Lawrence, J.F. (Volume Eds.), *Coleoptera, Beetles; Vol. 2. Morphology and Systematics (Elateroidea, Bostrichiformia, Cucujiformia partim)*. In: Kristensen, N.P. & Beutel, R.G. (Eds.), *Handbook of Zoology, Arthropoda: Insecta*. Walter de Gruyter GmbH & Co. KG, Berlin/New York, pp. 104–110.
- Crowson, R.A. (1972) A review of the classification of Cantharoidea (Coleoptera), with definition of two new families, Cneoglossidae and Omethidae. *Revista de la Universidad de Madrid*, 21, 35–77.
- Geisthardt, M. (2003) Zwei neue Arten der Gattung *Selasia* Castelnau, 1836 aus dem Jemen (Coleoptera: Drilidae). *Mitteilungen des Internationalen Entomologischen Vereins*, 28, 99–109.
- Geisthardt, M. (2007a) Remarks on some African *Selasia*-species and description of new species (Coleoptera: Drilidae). *Mitteilungen des Internationalen Entomologischen Vereins*, 32, 27–43.
- Geisthardt, M. (2007b) Neue und bekannte *Selasia* Laporte, 1836 Arten aus dem südliche Afrika (Coleoptera, Drilidae). *Entomologica Basiliensia et Collectionis Frey*, 29, 31–40.
- Geisthardt, M. (2009) Order Coleoptera, family Drilidae. In: van Harten, A. (Ed.), *Arthropod fauna of the UAE. Vol. 2*. Dar Al Ummah Printing, Abu Dhabi, United Arab Emirates, pp. 159–163.
- ICZN (1999) *International Code of Zoological Nomenclature. 4th Edition*. The International Trust for Zoological Nomenclature, London, 305 pp.
- Ivie, M.A. & Barclay, M.V.L. (2011) The familial placement and specific membership of *Escalerina* Bolívar y Pieltain and *Paulusiella* Löbl (Coleoptera: Elateridae, Dascillidae, Drilidae), with new synonymies. *The Coleopterists Bulletin*, 65, 167–172.
<http://dx.doi.org/10.1649/072.065.0216>
- Kundrata, R. (2012a) Taxonomic review of the Himalayan species of *Selasia* Laporte, 1836 (Coleoptera: Elateridae: Agrypninae: Drilini). *Annales Zoologici*, 62, 261–266.
<http://dx.doi.org/10.3161/000345412X652783>
- Kundrata, R. (2012b) Description of *Selasia socotrana* sp. nov. (Elateridae: Agrypninae: Drilini) from Socotra Island, with notes on *S. homhilia*. *Acta Entomologica Musei Nationalis Pragae*, 52 (Supplementum 2), 213–218.
- Kundrata, R. & Bocak, L. (2007) A revision of *Euanoma* and *Pseudeuanoma* (Coleoptera: Drilidae). *Annales Zoologici*, 57, 427–441.
- Kundrata, R. & Bocak, L. (2011) The phylogeny and limits of Elateridae (Insecta, Coleoptera): is there a common tendency of click beetles to soft-bodiedness and neoteny? *Zoologica Scripta*, 40, 364–378.
- Kundrata, R., Kobieluszova, L. & Bocak, L. (2014) A review of Drilini (Coleoptera: Elateridae: Agrypninae) of the Northern Levant, with description of a new species from Syria and a key to Levantine species. *Zootaxa*, 3755, 457–469.
- Laporte, F.L.N.C. (1836) Études entomologiques, ou descriptions d'insectes nouveaux et observations sur la synonymie. In: G. Silbermann (Ed.), *Revue Entomologique*. Volume 4. Strasbourg & Paris, pp. 5–60.
- Löbl, I. (2007) New nomenclatorial and taxonomic acts, and comments. Elateridae: Cebrioninae. In: Löbl, I. & Smetana, A. (Eds.), *The Palaearctic Catalogue of Coleoptera. Vol. 4*. Apollo Books, Stenstrup, pp. 32. [Denmark]
- Löbl, I. & Smetana, A. (2010) Errata for Volume 4. In: Löbl, I. & Smetana, A. (Eds.), *Catalogue of Palaearctic Coleoptera. Vol. 6*. Apollo Books, Stenstrup, pp. 24–29. [Denmark]
- Olivier, G.A. (1790) *Entomologie, ou Histoire Naturelle des Insectes, Avec leurs caractères génériques et spécifiques, leur description, leur synonymie, et leur figure enluminée. Tome Second*. Baudouin, Paris, pp. 1–4.
- Olivier, E. (1910) Rhagophthalmidae, Drilidae. In: Schenkl, S. (Ed.) *Coleopterorum Catalogus. Pars 10*. W. Junk, Berlin, pp. 1–10.
- Olivier, E. (1913) Description d'une nouvelle espèce de Drilidae [Col.]. *Bulletin de la Société Entomologique de France*, 1913, 92–93.
- Pic, M. (1914a) Nouveaux Coléoptères de diverses familles. *Mélanges Exotico-Entomologiques*, 10, 7–20.
- Pic, M. (1914b) Notes diverses, descriptions et diagnoses (Suite). *L'Échange, Revue Linnéenne*, 30, 49–51.
- Williams, F.X. (1951) Life-history studies of East African Achatina snails. *Bulletin of the Museum of Comparative Zoology*, 105, 295–371.
- Wittmer, W. (1935) Risultati scientifici delle cacce entomologiche di S.A.S. il Principe Alessandro della Torre e Tasso nelle Isole dell'Egeo, II.—Malacodermata. (3. Beitrag zur Kenntnis der palaearktischen Malacodermata). *Bollettino del Laboratorio di Zoologia generale e agraria del R. Istituto superiore agrario in Portici*, 28, 247–256.
- Wittmer, W. (1944) Catalogue des Drilidae E. Oliv. (Coleoptera - Malacodermata). *Revista de la Sociedad Entomológica Argentina*, 12, 203–221.
- Wittmer, W. (1979) Zur Kenntnis der Lampyridae der orientalischen Region (Coleoptera). *Entomologische Arbeiten aus dem Museum G. Frey Tutzing bei München*, 28, 83–92.
- Wittmer, W. (1980) Insects of Saudi Arabia. Coleoptera: Fam. Drilidae, Malachiidae, Prionoceridae. In: Wittmer, W. & Büttiker, W. (Eds.), *Fauna of Saudi Arabia. Vol. 2. Pro Entomologia*. Basle, Switzerland, pp. 114–118.
- Wittmer, W. (1989) Die Familie Drilidae (Coleoptera) in Südafrika, sowie Beschreibung von neuen Arten aus dem südlichen Afrika (30. Beitrag zur Kenntnis der Fauna Afrikas). *Entomologica Basiliensia*, 13, 187–205.