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# A revision of the *Sunius* species of the Western Palaearctic region and Middle Asia (Coleoptera: Staphylinidae: Paederinae)

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A b s t r a c t : Types and additional material of Western Palaearctic and Middle Asian *Sunius* species are revised, with a focus on previously unrevised species from the Western Mediterranean, North Africa, the Middle East, and Middle Asia. In all, 94 valid species and 3 subspecies are recognised and attributed to 6 species groups, mainly based on the male sexual characters. The majority of species is micropterous and has restricted distributions. The highest diversity is in the Mediterranean, with 24 species recorded from Turkey alone. (Re-)descriptions or brief diagnoses are given for approximately 70 species and subspecies. 19 species group taxa are described for the first time: *Sunius brevipennis gomerensis* **nov.ssp.** (Canary Islands: La Gomera); *S. falsus* **nov.sp.** (Israel, Lebanon); *S. ibizae* **nov.sp.** (Spain: Baleares: Ibiza); *S. praecisus* **nov.sp.** (Tajikistan, Iran); *S. mordicus* **nov.sp.** (Kyrgyzstan, Kazakhstan); *S. spinosissimus* **nov.sp.** (Lebanon); *S. behnei* **nov.sp.** (Spain: Andalucía: Sierra Magina); *S. calatravae* **nov.sp.** (Spain: Ciudad Real); *S. cordobanus* **nov.sp.** (Spain: Andalucía: Sierra de Córdoba); *S. discretus* **nov.sp.** (Tunisia); *S. rectus* **nov.sp.** (Algeria: Theniet el Had); *S. mouzaianus* **nov.sp.** (Algeria: Mouzaïa); *S. baboricus* **nov.sp.** (Algeria: Djebel Ta Babor); *S. sardus* **nov.sp.** (Italy: Sardinia); *S. menalonicus* **nov.sp.** (Greece: Pelopónnisos); *S. acutissimus* **nov.sp.** (Tajikistan, Uzbekistan, Turkmenistan); *S. bohaci* **nov.sp.** (Tajikistan); *S. inflexus* **nov.sp.** (Tajikistan); *S. pennatus* **nov.sp.** (Tajikistan). The following synonymies are established or confirmed: *Sunius melanocephalus* (FABRICIUS 1793) = *S. affinis* (KRAATZ 1859), = *S. armeniacus* (COIFFAIT 1970), **nov.syn.**; *S. ovaliceps* (FAUVEL 1878) = *S. fagniezi* (PEYERIMHOFF 1916), **nov.syn.**, = *S. peyerimhoffi* (COIFFAIT 1961), **nov.syn.**, = *S. valentianus* (COIFFAIT 1980), **nov.syn.**, = *S. murciensis* (COIFFAIT 1980), **nov.syn.**, = *S. deharvengi* (COIFFAIT 1980), **nov.syn.**; *S. adanensis* (LOKAY 1919) = *S. phasianus* (BORDONI 1980), **nov.syn.**; *S. khnzoriani* (COIFFAIT 1970) = *S. dolabrifer* ASSING 2001, **nov.syn.**; *S. bicolor* (OLIVIER 1795) = *S. ruficollis* (KRAATZ, 1857); *S. nigrinus* (EPPELSHEIM 1892) = *S. picinus* (BERNHAUER 1902), **nov.syn.**, = *S. meuseli* (BERNHAUER 1905), **nov.syn.**, = *S. lebedevi* (ROUBAL 1926), **nov.syn.**; *S. plasoni* (EPPELSHEIM 1875) = *S. pinnatus* ASSING 2006, **nov.syn.**; *S. brachypterus* (GEMMINGER & HAROLD 1868) = *S. pyrenaeus* (COIFFAIT 1961), **nov.syn.**, = *S. franzi* (COIFFAIT 1970), **nov.syn.**; *S. seminiger* (FAIRMAIRE 1860) = *S. aveyronnensis* (MATHAN 1862), **resyn.**; *S. simoni* (QUEDENFELDT 1881) = *S. nitidus* (QUEDENFELDT 1881), **nov.syn.**, = *S. politus* (QUEDENFELDT 1883), **nov.syn.**, = *S. nitens* (DUVIVIER 1883), **nov.syn.**, = *S. quedenfeldti* (EPPELSHEIM 1883), **nov.syn.**; *Luzea nigritula* (ERICHSON 1840) = *Hypomedon puncticeps* COIFFAIT 1971, **nov.syn.**; *Medon sericellus* (FAIRMAIRE 1860) = *Hypomedon troglophilus* JEANNEL & JARRIGE 1949, **nov.syn.**, = *H. besucheti* BORDONI 1980, **nov.syn.** *Sunius rastrifer* ASSING 2001, previously synonymised with *S. dolabrifer*, and *S. nigrinus* (EPPELSHEIM 1892), previously a synonym of *S. bicolor*, are revalidated. The following changes of status are proposed: *Sunius melanocephalus*

*anatolicus* ASSING 1995, *S. brevipennis canariensis* (BERNHAUER 1928) (both previously distinct species). A neotype is designated for *Lithocharis brachyptera* GEMMINGER & HAROLD 1868. Lectotypes are designated for *Medon fagniezi* PEYERIMHOFF 1916, *Medon nigrinus* EPPELSHEIM 1892, *Medon picinus* BERNHAUER 1902; *Lithocharis seminigra* FAIRMAIRE 1860, *Lithocharis simoni* QUEDENFELDT 1881, *Medon viator* FAUVEL 1886, The binomen *Cephisella nilotica* **nov.comb.** is established for *Medon niloticus* KOCH 1934, which was previously in *Sunius*. Bionomic and zoogeographic data are compiled and discussed, with particular reference to more widespread species. The distributions of 60 species are mapped. A key to species is provided and a synonymic catalogue is compiled.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Sunius*, Palaearctic region, Mediterranean, taxonomy, new species, new synonymies, new combination, neotype designation, lectotype designations, new records, distribution, key to species, catalogue.

## Table of Contents

## 1. Introduction

In the recent catalogue by SMETANA (2004), which includes all the Palaearctic species described until 2001, the paederine genus *Sunius* STEPHENS 1829 is represented in the Western Palaearctic region (including Iran) and in Middle Asia – which, for the purpose of the present revision, is defined to include Turkmenistan, Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan, and Afghanistan – by 75 species, including one nomen dubium. Only nine species are listed from the Eastern Palaearctic region. In the meantime, as many as 24 and 3 additional species have been described from the Western Palaearctic and Eastern Palaearctic regions, respectively (ASSING 2002, 2003a-b, 2004, 2005a-d, 2006a; ADORNO & ZANETTI 2003). Moreover, one name has been synonymised, and one species has been moved to the genus *Medon* STEPHENS 1833 (ASSING 2005c, 2006c). Most of the recent West Palaearctic discoveries are from Turkey (15 species); the remainder was described from Italy (3 species), Spain (2 species), as well as from Portugal, Morocco, Tunisia, and Iran (1 species each).

In the Western Palaearctic region, the highest diversity of *Sunius* species is in the Mediterranean, especially in Turkey, from where as many as 25 species (20 of them exclusive), plus a name of doubtful identity, were known prior to the present study (ASSING 2006a; SMETANA 2004). While there are recent comprehensive studies of the species of Turkey (see ASSING 2006a and references therein) and Italy (ADORNO & ZANETTI 2003), the *Sunius* fauna of other regions of the Western Palaearctic region and of Middle Asia has not been revised recently, the only available synopses being those by COIFFAIT (1961, 1984). Therefore, it is the primary objective of the present study to examine previously unrevised species and to clarify their taxonomic status and distributions.

## 2. Material and methods

The material referred to in this study is deposited in the following public institutions and private collections:

DEI ..... Deutsches Entomologisches Institut, Müncheberg (L. Behne, L. Zerche)
FMNH ..... Field Museum of Natural History, Chicago (A. F. Newton)
HMIM ..... Hayk Mirzayans Insect Museum, Tehran (S. Serri)
HNHM ..... Hungarian Natural History Museum, Budapest (G. Makranczy, O. Merkl)
IRSNB ..... Institut royal des Sciences naturelles de Belgique, Bruxelles (Y. Gérard)
MHNG ..... Muséum d´histoire naturelle, Genève (G. Cuccodoro)
MNHNP ..... Museum National d'Histoire Naturelle, Paris (N. Berti, A. Taghavian)
MNHUB ..... Museum für Naturkunde der Humboldt-Universität Berlin (J. Frisch)

MSA..... Montpellier SupAgro (previously École Nationale Supérieure Agronomique de Montpellier) (E. Pierre)

NHMW ..... Naturhistorisches Museum Wien (H. Schillhammer)

OÖLL..... Oberösterreichisches Landesmuseum Linz

SMNS..... Staatliches Museum für Naturkunde Stuttgart (W. Schawaller)

TAU ..... National Museum of Natural History, Tel Aviv University (A. Freidberg, via B. Feldmann)

cAss..... author´s private collection

cAnl..... private collection Sinan Anlaş, Turgutlu

cBoh..... private collection Jaroslav Boháč, Ceské Budejovice

cFel ..... private collection Benedikt Feldmann, Münster

cKöh..... private collection Frank Köhler, Bornheim

cOro ..... private collection Pedro Oromí, La Laguna

cRen ..... private collection Klaus Renner, Bielefeld

cSch..... private collection Michael Schülke, Berlin

cTro..... private collection Marc Tronquet, Molitg-les-Bains

cVai..... private collection Dante Vailati, Brescia (communicated by Pier Mauro Giachino, Torino)

cWun..... private collection Paul Wunderle, Mönchengladbach

cZan ..... private collection Adriano Zanetti, Verona

The morphological studies were carried out using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena) with a drawing tube. For the photographs a digital camera (Nikon Coolpix 995) was used.

Head length was measured from the anterior margin of the frons to the posterior margin of the head, elytral length at suture from the apex of the scutellum to the posterior margin of the elytra.

The maps were generated using the online generic mapping tool (GMT) of the Geomar website at www.aquarius.ifm-geomar.de/omc.

## 3. The *Sunius* fauna of the Western Palaearctic region and Middle Asia

### 3.1. Remarks

It was not possible to interpret three names that, according to SMETANA (2004), are currently attributed to *Sunius*, either because the type material of was not found or because loan requests remained unanswered: *S. bogdoensis* GREBENNIKOV 2001 from the lower Volga region, Russia, *Sunius nidicola* (KASHCHEEV 1982) from Kazakhstan, and *S. kaboulensis* (COIFFAIT 1981) from Afghanistan. According to the original description of *S. kaboulensis*, the female holotype is deposited in the Jarrige collection at the MNHNP, but it was not found there by the curator in charge (TAGHAVIAN, e-mail 17.9.2007).

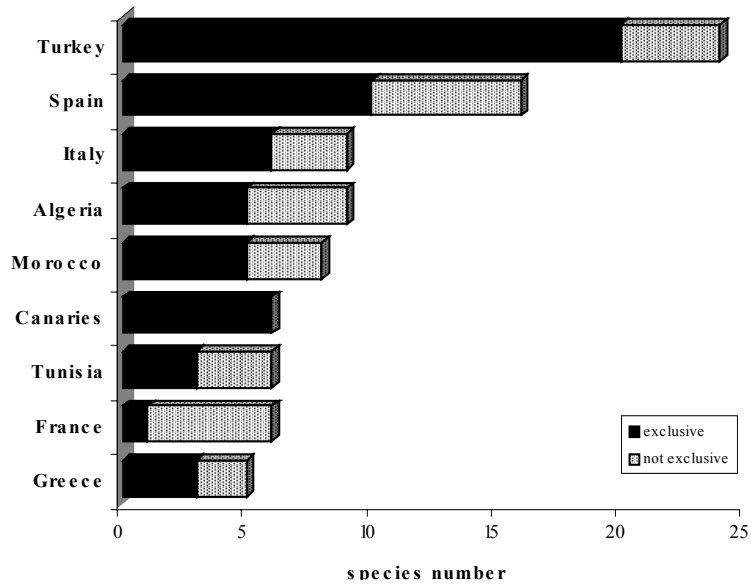



**Fig. 1**: Species numbers (without subspecies) of the most diverse Mediterranean countries and the Canary Islands. The figure for Spain does not include the Canarian species. Exclusive species: species known only from the respective countries; non-exclusive species: species recorded from more than one country, i. e. either widespread species or local endemics in the border region of two countries.

### 3.2. Diversity

With a total of 97 valid taxa (94 species and 3 subspecies), *Sunius* is among the most speciose genera – probably *the* most speciose genus – of Paederinae in the Western Palaearctic region and Middle Asia. Some species-rich paederine genera have not been revised recently, so that their exact species numbers are unknown. Considering that as many as 50 (sub-)species, i. e. more than half of the known inventory of the Western Palaearctic region and Middle Asia, have been described only in the past six years, there is little doubt that the actual diversity of *Sunius* in the region is distinctly higher than presently known. The highest diversity is in the Mediterranean, with – by far – the highest number of species recorded from Turkey (24 species, 20 of them exclusive; subspecies not considered), followed by Spain, Algeria, Italy, Morocco, the Canaries, Tunisia, and Greece (Fig. 1). In Middle Asia, the country with the most diverse *Sunius* fauna is Tajikistan (6 species, 4 of them exclusive).

### 3.3. Species groups

Owing to the low degree of character divergence, particularly regarding external morphology, an assessment of phylogenetic affiliations exclusively based on morphogical characters is difficult. However, evident similarities in the male sexual characters allow for a distinction of several more or less homogenous species groups.

The *S. melanocephalus* group is characterised by moderate body size, either fully developed hind wings, or a wing dimorphism, or completely reduced hind wings, the absence of tubercles or processes on the male sternite VIII, and an aedeagus with an apically acute ventral process without tooth-like projections in lateral view and with a long dark flagellum in the internal sac. Except for the representatives from the Canary Islands and Sicily, the species are more or less widespread. Besides *S. melanocephalus*, the following species belong here: *S. anophthalmus*, *S. brevipennis*, *S. fallax*, *S. fernandezi*, *S. georgii*, *S. ignatii*, *S. iranicus*, *S. fulgocephalus*, *S. microphthalmus*, *S. ovaliceps*, *S. palmi*, *S. propinquus*, *and S. tenerifensis*. Whether or not the micropterous *S. hellenicus* is a member of this species group is difficult to decide owing to the derived morphology of the aedeagus of this species.

The *S. adanensis* group is similar in most respects to the *S. melanocephalus* group, but is characterised especially by a different morphology of the aedeagus. Like that of the *S. melanocephalus* group, the internal sac contains a long flagellum, but the ventral process is apically truncate both in lateral and in ventral view and often has tooth-like subapical projections (ventral view). Most of the species of this group are wing-dimorphic and more or less widespread, some are micropterous and locally endemic. The distributions of the species of this group confined to the Eastern Mediterranean (from Turkey to the Middle East), the Caucasus region, and Iran. The group comprises the following species: *S. adanensis*, *S. akianus*, *S. falsus*, *S. khnzoriani*, *S. nurdaghensis*, *S. rastrifer*.

The species of the *S. bicolor* group are externally similar to those of the *S. melanocephalus* group and also have a long flagellum in the internal sac of the aedeagus. However, the ventral process of the aedeagus is conspicuously long and straight and also distinguished by the presence of one or two distinct subapical tooth-like projections (best visible in lateral view). The group includes both widespread winged and locally endemic micropterous species and is confined to the West of the Western Palaearctic region (North Africa, the Iberian Peninsula, Western Europe, Central Europe, and the south of northern Europe. Apart from *S. bicolor*, the group comprises *S. algiricus*, *S. ibizae*, *S. italicus*, *S. mallorcensis*, *S. martinarum*, and *S. meybohmi*.

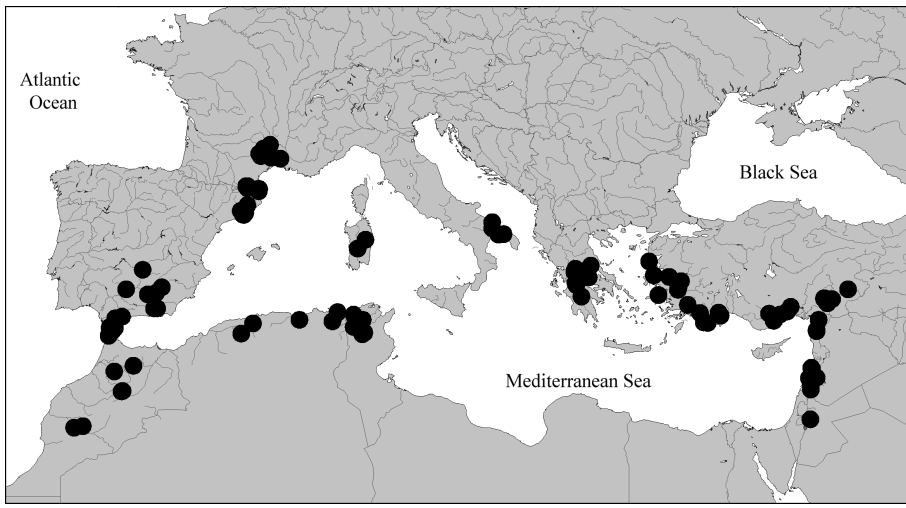
Like the preceding group, the *S. nigrinus* group, too, is characterised by a conspicuously long ventral process with one or two subapical tooth-like projections (best visible in lateral view), but the posterior excision of the male sternite VIII is distinctly U-shaped and finely margined (an exclusive synapomorphy confined to this group), and the internal sac of the aedeagus contains two oblong and basally connected distinctly sclerotised structures. The predominantly uniformly dark-coloured species of this group are either fully winged or wing-dimorphic, more or less widespread, and their distributions are confined to Middle Asia and adjacent regions. Besides *S. nigrinus*, the group includes *S. afghanicus*, *S. mordicus*, and *S. praecisus*.

In contrast to the preceding groups, all the species of the *S. seminiger* group share the following characteristics: small body size; large head (in relation to pronotum); more or less uniform and pale coloration of the forebody; more or less reduced eye size, elytral length, and hind wings; absence of a palisade fringe at the posterior margin of tergite VII. In addition, many species have modified male sternites VIII (with median tubercle, keel, or process), rows of usually few, more or less distinctly sclerotised spines in the internal sac, and an aedeagus similar in shape to that illustrated e. g. in Figs 76-77, 79-81, 87-88, 97-98, 100-101. This basic shape may be modified to various degrees. The *S.*

*seminiger* group has a circum-Mediterranean distribution (Map 1). Remarkably, no geographic trends were observed regarding the modifications of the male sternite VIII, the presence and absence of spines, and the different shapes of the ventral process of the aedeagus, which can be found in all combinations and are sometimes similar in geographically very distant species. If these modifications were synapomorphies, this would suggest that the Mediterranean was colonised by the *S. seminiger* group several times. This, however, seems most unlikely, considering the highly restricted distributions and evidently low dispersal power of all the representatives of this group. All of them are local endemics in the Mediterranean region and, as far as currently known, the distributions are strictly para- or allopatric. The group is highly speciose and, apart from *S. seminiger*, includes *S. aculeatus*, *S. amanensis*, *S. atlasicus*, *S. baboricus*, *S. balkarensis*, *S. behnei*, *S. berberus*, *S. bozdagensis*, *S. brachati*, *S. brachypterus*, *S. brevispinosus*, *S. calatravae*, *S. catalonicus*, *S. cazorlae*, *S. confusus*, *S. cordobanus*, *S. discretus*, *S. dumanlianus*, *S. fokisensis*, *S. fortespinosus*, *S. fultus*, *S. goektepensis*, *S. gourvesi*, *S. hastatus*, *S. hatayanus*, *S. hypogaeus*, *S. klapperichi*, *S. longispinosus*, *S. menalonicus*, *S. montanellus*, *S. mouzaianus*, *S. nevadensis*, *S. pauli*, *S. pinniger*, *S. plasoni*, *S. puglianus*, *S. rectus*, *S. renouardi*, *S. sardus*, *S. segurae*, *S. sexspinosus*, *S. simoni*, *S. spinosissimus*, *S. tuberiventris*, *S. tuniseus*, *S. vaulogeri*, and *S. wunderlei*. It seems likely that *S. bihamatus* refers to this group, but owing to its somewhat derived morphology, some doubt remains.

The species of the *S. viator* group are characterised by either small or moderate to relatively large size, usually rather coarse and dense puncturation of the forebody, a usually more or less distinctly oblong head (only the larger species), elongated antennae and legs (metatibia longer than width of abdomen; exclusive synapomorphy only of the larger species), and an adeagus with an apically – often extremely – acute apex both in lateral and in ventral view and with two long dark rows of numerous spines in the internal sac (exclusive synapomorphy of all the species). The larger species of this group appear to be fully winged, whereas at least two of the small species have reduced hind wings. The vast majority of species are confined to Middle Asia and adjacent regions, one of them is known only from North Africa. All the species have been collected rarely or extremely rarely, possibly owing to the presumable association with subterranean mammal nests; at least this seems to be true of the larger species. In addition to *S. viator*, the latter comprise *S. acutissimus*, *S. basalis*, *S. bogdoensis*, *S. claviceps*, *S. nidicola*, *S. splendidulus*, and *S. wrasei*. Possibly, *S. kaboulensis* refers to this group, but the aedeagus is unknown, and it has not been possible to study the type. The three small micropterous species are *S. bohaci*, *S. inflexus*, and *S. pennatus*, all of them from Tajikistan.

The sole representative of the *S. sinaicus* group does not refer to any of these groups. It is distinguished by a rather coarsely punctured, stout body (somewhat resembling that of species of the genera *Acanthoglossa* KRAATZ and *Hypomedon* MULSANT & REY), and an aedeagus of rather unique morphology, with an apically acute (ventral view) and laterally compressed ventral process and with numerous long spines in the internal sac. The species is confined to Saudi Arabia, Oman, and the Sinai peninsula, suggesting that it may have closer affiliations to species from the Ethiopian region.




**Map 1**: Pooled distribution of the species of the *S. seminiger* group in the Mediterranean region, based on examined records.

### 3.4. Identification

Due to the high species diversity of the genus in the region and, at the same time, little character divergence, a reliable identification of females is often difficult. The male primary – and often also the secondary – sexual characters, however, are usually highly distinctive. In some cases, an examination of the internal structures of the aedeagus is necessary for the separation of closely related species, particularly so in species of the *S. seminiger* group.

### 3.5. Bionomics

*Sunius* species are found in a variety of different habitats. While some species are preferably found by sifting the litter and soil beneath trees and shrubs, others primarily inhabit unforested biotopes. Many species, especially those of the *S. seminiger group*, have been discovered by sifting soil and turning stones in various types of grassland, especially at intermediate and higher altitudes. Some species are usually collected in damp habitats, often on or near the banks of rivers and the shores of lakes. The almost completely reduced eyes in some Canarian *Sunius* suggest that they inhabit crevices or deeper layers of the soil. The available evidence (rarity of collection, collection data) suggests that the larger species of the *S. viator* group may be associated with the subterranean burrows or nests of mammals.

The vast majority of species, including all the representatives of the *S. seminiger* group and some members of the other species groups, are micropterous; the remainder is either fully winged or wing-dimorphic; there is no evidence of sex-related wing dimorphism.

As far as is currently known, *Sunius* species are univoltine, with oviposition and preimaginal development mostly taking place in spring and summer, in some species apparently also in winter.

## 4. Species descriptions, diagnoses, and additional records

Below, the species that have already been revised in previous contributions (see introduction), in particular those from Turkey, are not treated, unless additional material has become available or the taxonomic status has changed. However, all the species are considered in the catalogue and the key (sections 5 and 6).

### 4.1. *Sunius melanocephalus* (FABRICIUS 1793)

#### 4.1.1. *Sunius melanocephalus melanocephalus* (FABRICIUS 1793) (Fig. 2, Map 2-3)

*Paederus melanocephalus* FABRICIUS 1793: 538.
*Lithocharis affinis* KRAATZ 1859: 142; synonymy confirmed.
*Hypomedon armeniacus* COIFFAIT 1970: 718 ff.; **nov.syn.**

Type material examined: *L. affinis*: Holotype ♂: "♂ / 90 / India oriental. / affinis / Holotypus / coll. Kraatz / coll. DEI Müncheberg / Sunius melanocephalus (Fabricius) det. V. Assing 2007" (DEI).
*H. armeniacus*: Holotype ♂: "[locality in Cyrillic], 11.5.52 / Holotype / Hypomedon armeniacus Coiff., H. Coiffait det. 1968 / Museum Paris / Sunius melanocephalus (Fabricius) det. V. Assing 2007" (MNHNP). Paratype ♀: "[locality in Cyrillic], 6.6.58 / Paratype / Museum Paris / Sunius melanocephalus (Fabricius) det. V. Assing 2007" (MNHNP).

Comments: *Lithocharis affinis* was described from a single specimen from "India orientalis" (KRAATZ 1859), which at that time covered a vast area in southeast Asia. The holotype is conspecific with *S. melanocephalus*, so that the previously established synonymy is here confirmed.

The original description of *Hypomedon armeniacus* is based on a holotype male from "Erevan, Arménie soviétique" and two female paratypes from "Azizbekof, Arménie soviétique" (COIFFAIT 1970). Since both the sexual and the external characters of the holotype are within the range of intraspecific variation of *S. melanocephalus*, *S. armeniacus* is here placed in the synonymy of this name.

Additional material examined: Spain: Cataluña: 1 ex., Gerona, La Junquera, 30.XI.1961, leg. Comellini (cAss). France: Aquitaine: 2 ex., Gironde, Cavignac, 11.IV.1937, leg. Tempère (MHNG); 2 exs., Gironde, Camarsac, 18.II.1928, leg. Tempère (cAss); 1 ex., Gironde, Cussac [45°07'N, 0°44'W], 30.III.1930, leg. Tempère (MHNG); 1 ex., same data, but 13.III.1937 (MHNG); 1 ex., same data, but 20.III.1930 (MHNG); 1 ex., Gironde, Talence, XI.1935, leg. Tempère (MHNG); 1 ex., Gironde, Cambes, 11.VIII.1937, leg. Tempère (MHNG); 1 ex., Gironde, locality illegible, 9.IV.1928, leg. Tempère (MHNG). Île-de-France: 1 ex., Gagny (MHNG). Midi-Pyrénées: 1 ex. [macropterous], Gers, Samatan, leg. Clermont (cAss). Picardie: 1 ex., Oise, 30 km S Amiens, Mont-Saint-Firmin ["Mesnil St. Firmin"] (MHNG). Centre: 1 ex., Loire-et-Cher, Vendôme (MHNG); 1 ex., Cher, La Périsse (MHNG); 1 ex., Indre-et-Loire, Le Grand-Pressigny (MHNG). Auvergne: 2 exs., Allier, Broût-Vernet (MHNG); 1 ex., Broût-Vernet, 9.IV.1909 (MHNG); 1 ex., Broût-Vernet, 23.VII.1909 (MHNG); 1 ex., Broût-Vernet, *Formica* nest, 21.XII.1883 (MHNG). Bourgogne: 1 ex., Arces [48°05'N, 3°36'E], beneath apple tree, 15.III.1969, leg. Tronquet (cTro). Champagne-Lorraine: 1 ex., Vosges, Plombières-les-Bains (MHNG). Ardenne: 3 exs., Haute-Marne, Chevillon, 5.IV.1904, leg. Méquignon (MHNG). Rhône-Alpes: 1 ex., Haute-Savoie, Chevrier, vole nest, III.2000, leg. Sudre (cTro); 1 ex., Haute-Savoie, Monnetier-Mornex, 16.IV.1962, leg. Comellini (MHNG); 1 ex., Haute-Savoie, Murcier near Savigny, 11.III.1961, leg. Comellini (MHNG); 1 ex., Isère, Vienne (MHNG); 2 exs., Col du Drôme, 8 km S Die, 1140 m, 22.V.1974, leg. Tronquet (cTro). Provence: 1 ex., Alpes-Maritimes, Caussols near Grasse (MHNG); 1 ex., Alpes-Maritimes, Beuil, IV.1951 (MHNG). Switzerland: Vaud: 2 exs., Peney-le-Jorat (MHNG). Germany: Nordrhein-

W e s t f a l e n : 1 ex., Rommerskirchen, 27.VI.1985, leg. Köhler (cKöh); 1 ex., Pulheim-Sinnersdorf, 9.VII.1985, leg. Köhler (cKöh); 2 exs., same data, but 6.VIII.1986, leg. Köhler (cKöh); 1 ex., Euskirchen, Kirchheim, 2.V.1988, leg. Köhler (cKöh); 1 ex., Euskirchen, Holzheim, Lambertsberg, 31.III.1991, leg. Fritz & Köhler (cKöh); 1 ex., same data, but 11.IV.1992 (cKöh); 1 ex., Warburg, 29.V.1980, leg. Renner (cRen); 1 ex., Paderborn env., Hamborn, mesobrometum, 15. V. 2004, leg. Feldmann (cFel); 1 ex., Marsberg, Dahlberg, mesobrometum, pitfall, V.1993, leg. Lückmann (cFel); 1 ex., Marsberg, Kregenberg, mesobrometum, pitfall, VII.1993, leg. Lückmann (cFel). H e s s e n : 1 ex., Marburg, Rauschenberg, 12.IV.1986, leg. Köhler (cKöh); 1 ex., Schlüchtern, 15.VI.1993, leg. Sprick (cAss); 1 ex., Hofgeismar, leg. Folwaczny (MHNG). N i e d e r s a c h s e n [see also ASSING (1994)]: 1 ex., Hildesheim, Himmelsthür, Gallberg, mesobrometum, 20.IV.1983. leg. Assing (cAss); 1 ex., Lüchow env., Schreyan, salt pit, 21.V.1988, leg. Assing (cAss); 1 ex., same locality, 25.V.1991, leg. Assing (cAss); 1 ex., Gartow, oak litter, 25.V.1991, leg. Assing (cAss); 1 ex., Helmstedt env., Heeseberg, 31.VIII.1991, leg. Assing (cAss); 2 exs. [teneral], Göttingen, Roringen, under stones, 5.X.1989, leg. Sprick (cAss); 1 ex., Hannover, Linden, bank of Leine river, flood debris, 14.I.1994, leg. Schmidt (cAss); 1 ex., Hannover, Ahlem, 8.V.1994, leg. Sprick (cAss); 1 ex., W Hannover, Bad Nenndorf, compost, 6.V.1984, leg. Assing (cAss); 1 ex., Bad Nenndorf, garden, circus dung, 1.V.1990, leg. Assing (cAss); 1 ex., Bad Nenndorf, garden, compost, 23.III.1991, leg. Assing (cAss); 3 exs., Bad Nenndorf, garden, pitfall, IX.1987, leg. Assing (cAss); 1 ex., same data, but XI.1987 (cAss); 1 ex., same data, but XII.1987 (cAss); 2 exs., same data, but IV.1988 (cAss); 6 exs., SE Hameln, Düt [52°06'N, 09°25'E], pitfall, IV.1988, leg. Sprick (cAss); 3 exs., same data, but V.1988 (cAss); 3 exs. [1♀ with eggs in ovaries], same data, but VI.1988 (cAss); 1 ex. [teneral], same data, but VII.1988 (cAss); 2 exs., same data, but VIII.1988 (cAss); 1 ex., same data, but IX.1988 (cAss); 1 ex., same data, but X.1988 (cAss); 3 exs., Alfeld/Leine env., Wrisbergholzen, Ortsberg, mesobrometum, pitfall, IV.1985, leg. Assing (cAss); 2 exs., same data, but V.1985 (cAss); 1 ex., same data, but VI.1985 (cAss); 1 ex., same data, but VII.1985 (cAss); 3 exs. [1 teneral], same data, but VIII.1985 (cAss); 1 ex., same data, but IX.1985 (cAss); 4 exs. [1 teneral], same data, but X.1985 (cAss); 1 ex., same data, but II.1986 (cAss); 2 exs., same data, but V.1986 (cAss); 3 exs., same data, but VI.1986 (cAss); 1 ex., same data, but VIII.1986 (cAss); 1 ex., same data, but X.1986 (cAss); 1 ex., same data, but IV.1987 (cAss). S a c h s e n - A n h a l t : 1 ex., Lkrs. Wittenberg, Gallin, bank of Elbe river, flood debris, 12.III.2000, leg. Schülke (cSch); 1 ex. [brachypterous], Kyffhäuser, Schlachtberg [51°22'N, 11°06'E], sweep-net, 24.VII.1992, leg. Peschel (cSch); 1 ex., same locality, pitfall trap, 15.V.1989, leg. Peschel (cSch); 1 ex., same locality, 10.IV.1992, leg. Peschel (cSch); 1 ex., Halle, Dörstewitz, field margin, 30.V.1996, leg. Sprick (cAss); 1 ex., Gimritz, dry grassland, pitfall, IV.1993, leg. Teichmann (cFel); 1 ex., same data, but V.1993 (cFel). B r a n d e n b u r g / B e r l i n : 3 exs., N Podelzig, Priesterschlucht, X.2005, leg. Schülke (cSch); 1 ex., Eisenhüttenstadt, 26.III.1989, leg. Pütz (cSch); 1 ex., S Martinskirchen, dry litter beneath *Carpinus*, 20.V.2006, leg. Wrase (cSch). T h ü r i n g e n : 1 ex., Gotha env., Mühlberg, pasture, 7.X.1994, leg. Renner (cRen); 1 ex., Kreis Arnstadt, Wachsenburg, nest of *Formica pratensis*, 23.V.1986, leg. Schülke (cSch); 1 ex., S Jena, Bibra, 8.VII.1989, leg. Peschel (cSch); 1 ex., Jena env., limestone, 23.XII.1984, leg. Arndt (cSch); 1 ex., Gera, park, pitfall trap, 8.V.1983, leg. Hensel (cSch). S a c h s e n : 1 ex., Oederan, 18.III.1906, leg. Cohrs (DEI); 1 ex., Mittweida, 25.III.1982, leg. Schülke (cSch). Austria: O b e r ö s t e r r e i c h : 1 ex., Volkersdorf, Hochleitenwald, leg. Franz (NHMW); 1 ex., Altmünster, 31.V.1951, leg. Franz (NHMW); 1 ex., Traumauen, leg. Franz (cAss). N i e d e r ö s t e r r e i c h / W i e n : 4 ex., Moosbrunn, Jesuitenbach, leg. Beier & Franz (NHMW, cAss); 1 ex., Moosbrunn, 26.II.1953, leg. Schubert (cAss); 2 exs., Mödling env., leg. Franz (NHMW); 3 exs., Ebreichsdorf, leg. Beier & Franz (NHMW); 4 exs., SW Wien, Eichkogel, leg. Franz (NHMW); 1 ex., Wien, Prater (NHMW); 1 ex., Wien env., leg. Reitter (HNHM). S t e i e r m a r k : 1 ex., Bründi near Graz, 28.III.1930 (NHMW); 1 ex., Fürstenfeld, Groß-Hardt, leg. Franz (NHMW); 1 ex., Hartberg, Ringkogel, leg. Franz (NHMW)). K ä r n t e n : 1 ex., St. Radegund, leg. Beszédes (HNHM). B u r g e n l a n d : 1 ex., Leithagebirge, Zeilerberg, 30.VIII.1985, leg. Assing (cAss); 1 ex., Zeilerberg, 26.VI.1988, leg. Hirgstetter (cAss); 1 ex., Leithagebirge, leg. Franz (NHMW); 1 ex., Leithagebirge, Purbach, leg. Franz (NHMW); 3 exs., Leithagebirge, Wimpassing, leg. Franz (NHMW, cAss); 1 ex., Nickelsdorf, leg. Franz (NHMW); 3 exs., Zurndorfer Heide, 27.VIII.1985, leg. Assing (cAss); 7 exs., Zurndorf, leg. Franz (NHMW, cAss); 1 ex., Zurndorf, 30.VIII.1988 (cAss); 1 ex., Neusiedlersee, Breitenbrunn, Naturschutzgebiet "Lerchenfeld", 28.VIII.1988 (cAss); 1 ex., Andau, 2.IX.1988, leg. Melber (cAss); 1 ex., sand pit near Podersdorf, 18.VI.1987, leg Köhler (cKöh); 2 exs., Illmitz (MHNG). Italy: T r e n t i n o -

A l t o A d i g e : 1 ex., S Bolzano, Ora, 11.VI.1989, leg. Wunderle (cWun); 1 ex., Smarano, 1000 m, *Prunus* litter, 8.VIII.1974, leg. Zanetti (cZan); 1 ex., Sfruz (TN), 1000 m, 21.VIII.1989, leg. Zanetti (cZan); 1 ex., Roncegno (TN), 500 m, swamp, alnetum, 9.II.1997, leg. Tagliapietra & Zanetti (cZan); 1 ex., Novaledo, 450 m, *Talpa* nest, 9.II.1997, leg. Tagliapietra & Zanetti (cZan); 1 ex., Val Sugana (TN), Inghiaie, base of *Salix*, 16.IX.1992 (cZan). P i e m o n t e : 1 ex., Garessio, 20.VII.1895, leg. Fiori (MNHUB). L i g u r i a : 1 ex., Genova, 12.V.1891, leg. Bensa (MNHUB). L o m b a r d i a : 1 ex., Milano, 23.X.1938, leg. Magistretti (MHNG); 1 ex., Bereguardo, III.1913, leg. Magistretti (MHNG); 1 ex., Sondrio, M. Vespolo, 700-800 m, 20.V.1953, leg. Dioli (cZan); 2 exs., Sondrio, Grumello, 24.III.1973, leg. Dioli (cZan); 1 ex., Sondrio, Colorina, 4.IV.1972, leg. Dioli (cZan); 1 ex., Sondrio, prati di Val Valeriana, 7.III.1967, leg. Dioli (cZan). V e n e t o : 10 exs., Trezzolano (VR), 26.XII.1972, leg. Zanetti (cZan); 1 ex., Feltre, 1.V.1973, leg. Villabruno (cZan); 2 exs., Feltre, Anzù, 240 m, *Talpa* nest, 11.I.1998, leg. Zanetti (cZan); 1 ex. [with worker of *Camponotus* sp. attached to the same pin], Verona, periferia sud, 21.I.1970, leg. Zanetti (cZan); 1 ex., Verona, stadio, 12.IX.1972, leg. Zanetti (cZan); 1 ex., same locality, 17.X.1970, leg. Zanetti (cZan); 17 exs., Verona, stadio, with *Lasius fuliginosus*, 23.I.1975, leg. Zanetti (cZan); 2 exs., same data, but in *Salix* litter (cZan); 1 ex., Verona, Spianà, base of *Populus*, 20.II.1994, leg. Zanetti (cZan); 1 ex. [teneral], Verona, Dolce Peri, 25.IX.1969, leg. Zanetti (cZan); 1 ex., S. Michele (VR), base of *Salix*, 31.III.1975, leg. Zanetti (cZan); 1 ex., San Martino Buon Albergo (VR), base of *Salix*, 28.II.1991, leg. Zanetti (cZan); 1 ex., S Isola della Scala (VR), Pellegrina, 3.II.1980, leg. Zanetti (cZan); 1 ex., Treviso, Mte. Grappa, 1600 m, 21.IV.1987, leg. Wolf (cSch). F r i u l i - V e n e z i a G i u l i a : 1 ex., Opicina [45°41'N, 13°47'E], 15.IX.1960, leg. Seriani (cZan). E m i l i a - R o m a g n a : 2 exs., locality illegible, III.1927, leg. Fiori (MNHUB). T o s c a n a : 1 ex., Passo della Raticosa [ca. 44°09'N, 11°19'E], leg. Castellini (cTro). A b r u z z i : 4 exs. [1 teneral], L'Aquila, Monte Tranquillo [ca. 41°45'N, 13°45'E], 1300-1400 m, VIII.1975, leg. Dioli & Vigna (cZan); 1 ex., Pescasseroli (AQ), VIII.1975, leg. Dioli (cZan). Czech Republic: 1 ex., Praha, leg. Lokay (HNHM); 2 exs., W Práha, Radotinské údoli, 30.V.1996, leg. Assing (cAss); 2 ex., Praha-oholi, VI.1939, leg. Pfaffav (cBoh); 1 ex., Ceske Budějovice, Hlubocké Obory Natural Reserve, 27.V.2006, leg. Tronquet (cTro); 1 ex., Bohemia, Čelákovice, 30.XI.1970, leg. Boháč (cBoh); 1 ex., Čelákovice, 4.III.1962, leg. Tichý (cBoh); 1 ex., same data, but 30.X.1970 (cBoh); 2 exs., Bohemia, Shon (Temelín), *Formica* nest, 21.II.1994, leg. Holub (cBoh); 3 exs., Bohemia, Nemcice, Male Chrastany, *Formica* nest, III.1994, leg. Snizek (cBoh); 3 exs., Bezděkov, VI.1971, leg. Mařik (cBoh); 1 ex., Žatec, 6.V.1971, leg. Boháč (cBoh); 1 ex., Kral.-Hradecko, Janovec, X.1945, leg. Roubal (cBoh); 1 ex., Most, Bečov [ca. 50°57'N, 13°41'E], 11.IV.2002, leg. Wrase (cSch); Ceske Stredohori, 1 ex., Paskov, leg. Reitter (HNHM); 1 ex., Hostivice, VII.1952 (MHNG); 1 ex., Svarec near Nedvedice, 5.IV.1995, leg. Prudek & Drozd (cSch); 1 ex., Vinařice (cSch); 2 exs., Hlubočepy [50°02'N, 14°24'E] (cSch); 1 ex., S-Moravia, Mikulov, *Talpa* nest, 23.II.1961, leg. Smetana (cSme); 1 ex., Moravia, Lednice, 7.I.1973, leg. Boháč (cBoh); 1 ex., Moravia, Hulín, 6.III.1938 (cBoh); 1 ex., Lovoš [50°32'N, 14°01'E], 23.V.1963 (cBoh). Slovakia: 1 ex., Bratislava, 13.III.1974, leg. Strejček (cBoh); 2 exs., Kosiče-Barca, 16.X.2002, leg. Smatana (cSch), 2 exs., Kosiče env., Turňianský Hrad., 5.IV.1999, leg. Hlaváč (cAss); 1 ex., same data, but 28.III.2002 (cAss); 1 ex., Malá Bara, 29.III.2002, leg. Hlaváč (cAss); 1 ex., Trenčin, Bolesó, leg. Laczo (HNHM), 1 ex., Trenčin, leg. Brancsik (HNHM); 1 ex., Tuřna nad Bodvou, 29.III.1998, leg. Smatana (cSch); 1 ex., Com. Bars., Újbánya [=Nová Batóa], leg. Dudich (HNHM); 1 ex., Dubova pr. Modra, 23.V.1992, leg. Winkelmann-Klöck (cSch); 1 ex., Nitra, 24.IV.1987, leg. Cunev (cBoh); 1 ex., same data, but 25.III.1984 (cBoh); 1 ex., same data, but 14.V.19?? [year illegible] (cBoh); 1 ex., Tríbeč [48°25'N; 18°15'E] Horivá yes [?], 16.V.1982, leg. Cunev (cBoh). Hungary: 2 exs., Pécs, 1904, 1906, leg. Liebmann (HNHM); 1 ex., Nógrádszakál, VI.1922, leg. Biró (HNHM); 1 ex., Velencei-tó [47°13'N, 18°36'E], leg. Kaszab (HNHM); 1 ex., Mosonmagyaróvár ["M.-óvár"], 19.III.1949 (HNHM); 1 ex., Mosonmagyaróvár, 18.V.1944 (HNHM); 1 ex., Őrszentmiklós [47°41'N, 19°17'E], Nyáras, leg. Sajó (HNHM); 5 exs., Budapest, Újpest, leg. Götzelmann (MHNG); 1 ex., Mátra h.[Mts.], Galyatetö, 4.V.1954, leg. Székessy (HNHM). Romania: 1 ex., jud. Gorj, Vf. lui Stan, 45°01'N, 22°36'E, 1000 m, under stone, 25.IV.2002, leg. Makranczy (cAss); 2 exs., jud. Bihor, 2 km NW Bucea, 46°58'N, 22°40'E, 550 m, meadow, under haystack, 8.I.2005, leg. Makranczy (cAss); 1 ex., jud. Harghita, 6.5 km W Miercurea-Ciuc, 46°22'N, 25°43'E, 840 m, 10.I.2005, leg. Makranczy (cAss); 3 exs., Mehadia, leg. Frivaldszky, Kuthy (HNHM); 4 exs., Herculesfürdö [Baile Herculane], 1878, leg. Pável (HNHM); 2 exs., N-Dobrudja (MHNG); 1 ex., O-Sebeshely [Ósebeshely=Sibişel], VI.1913, leg. Biró (HNHM); 1 ex., Nagyenyed [Aiud], Nagy Ignác (HNHM). Slovenia: 3 exs., Maribor, leg. Lang

(MHNG). Croatia: 1 ex., Zagreb, Tryc, 9.IV.1900 (HNHM); 3 exs., Zagreb, leg. Stiller (HNHM); 2 exs., Ludbreg, leg. Apfelbeck (HNHM); 1 ex., Otočac, leg. v. Heyden (DEI); 1 ex., Police, Gornja Radgona, 25.VI.1999, leg. Drovenik (cBoh). Bosnia-Herzegovina: 1 ex., Dračevo, leg. Apfelbeck (HNHM); 1 ex., Mostar (HNHM); 1 ex., Sarajevo, leg. Apfelbeck (HNHM); 10 exs., Bjelasnica planina (DEI, MHNG); 1 ex., Maklen pass, leg. Leonhard (DEI). Bulgaria: 2 exs., Stara planina, Dolno Sachrane [42°38'N, 25°14'E], G. Dimitrov reservoir, 18.V.1984, leg. Wrase (cSch, cAss); 2 exs., Kazanlak, Georgi Dimitrov reservoir, 19.IX.1977, leg. Hieke & Uhlig (MNHUB, cAss); 2 ex., Mičurin, 18.IX.1977, leg. Hieke & Uhlig (MNHUB, cAss); 1 ex., Dragoman, 24.-31.V.1989, leg. Leidenfrost (cSch); 2 exs., Samokov, 1911, leg. Hilf (DEI). Greece: m a i n l a n d : 1 ex., Préveza, Kastrosikia, 50 m, 20.V.1996, leg. Schulz & Vock (cAss); 1 ex., Grevena, W Smixi, ski resort, 1700 m, 18.VI.2002, leg Brachat (cAss); 2 exs., Imathia, Seli, 20 km NW Náoussa, 1700-1800 m, 17.V.1996, leg. Schulz & Vock (cAss); 21 exs., Vermion Oros, above Seli, 40°33'N, 22°00'E, 1500 m, 11.IV.1998, leg. Assing, Schülke, Wunderle (cAss, cSch, cWun); 1 ex., Vermion Oros, ski resort Seli, 40°32'N, 22°01'E, 1520 m [date not specified], leg. Zerche (DEI); 1 ex., Thessaloniki, leg. Schatzmayr (DEI); 3 exs., Thessalia, NE Ossa Oros, Stómio, 39°55'N, 22°41'E, floodplain forest, 5.IV.1998, leg. Schülke (cSch, cAss). Turkey [see also ASSING (2001a, 2005a)]: I s t a n b u l : 1 ex., Alem Dağı, Polonezköyü, 24.III.1975, leg. Bremer (MNHUB); 1 ex., same locality, 4.-8.IV.1902, leg. Gottwald (MNHUB); 1 ex., Yalova-Orhangazi, 11.V.1976, leg. Besuchet (MHNG); 1 ex., Istanbul, 1900, leg. Korb (DEI). K ü t a h y a : 1 ex., Minnetler, 16.IV.2006, leg. Anlaş (cAnl). R i z e : 1 ex., Rize env., leg. Franz (NHMW). M a n i s a : 1 ex., Turgutlu, Ovacık, 11.III.2007 (cAnl); 1 ex., Spil Dağı, 1100 m, 29.III.2007 (cAnl). Georgia: 1 ex., Trialetskiy Khrebet, Borzhomi, 800 m, 18.VI.1987, leg. Wrase & Schülke (cAss); 1 ex., Zeraboseli, 500 m, 13.X.1981 (cBoh). Russia: 4 exs., Rostov n. D., 10.VII.1970 (cBoh); 1 ex., same data, but 25.IV.1970 (cAss); 1 ex., same data, but 8.X.1970 (cBoh); 1 ex., same data, but 24.VI.1970 (cBoh); 1 ex., Vladivostok, leg. Jurecek (cBoh). Daghestan: 1 ex., "Samurwald", leg. Franz (NHMW). Azerbaijan: 2 exs., Ordubad ["Araxesthal"], leg. Leder & Reitter (HNHM). Iran: 1♂, Mazanderan, S Tang-e-Râh, 37°25'N, 55°45'E, 28.VII.1974, leg. Senglet (cAss). Uzbekistan: 3 exs., Marg'ilon [Margelan] (HNHM, cAss); 1 ex., Tashkent env., Cimgan Mt. (Tanshan Mt.), 2800 m, 6.V.1978, leg. Strejček (cBoh). Locality ambiguous or not specified: 1 ex., Jablanica, leg. Paganetti (HNHM); 2 exs., "Makkos", IV.1920, leg. Horváth (HNHM); 1 ex., "Brandis, Travnik" (HNHM); 1 ex., "Kaukas.", leg. Leder (HNHM); 2 exs., "Caucasus", leg. Leder (HNHM); 1 ex., "Rossia" (HNHM); 2 exs., without locality (HNHM); 1 ex. (Boh).

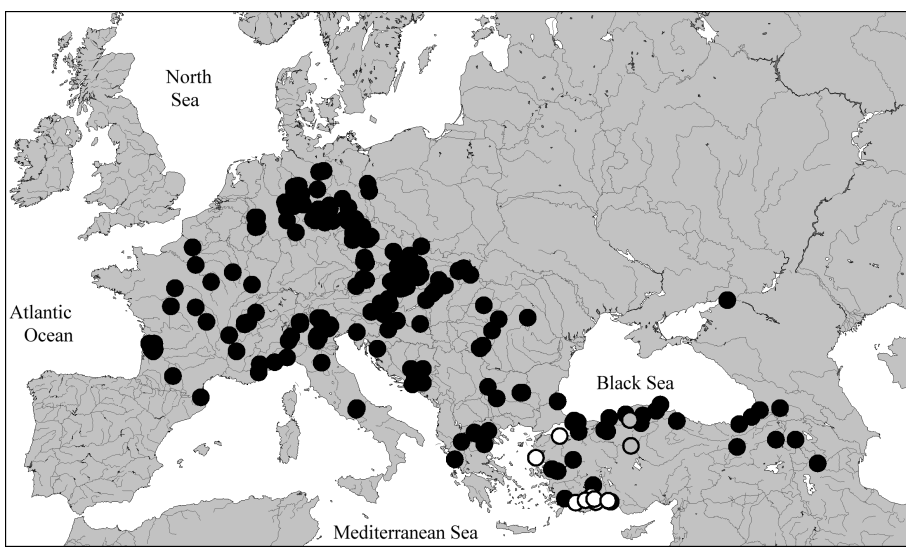
D i a g n o s i s : Distinctly bicolored species with head and pronotum usually dark brown to blackish, and pronotum and elytra reddish. For a colour photograph see TRONQUET (2006). Posterior margin of abdominal tergite VII with palisade fringe. Reliably distinguished from externally similar species only by the male primary and secondary sexual characters.

♂: sternite VIII with relatively deep V-shaped posterior excision, otherwise unmodified; aedeagus as figured by ASSING (1995, 2001a).

C o m p a r a t i v e n o t e s : In the collections examined, *S. melanocephalus* was most often confused with *S. fallax* and *S. bicolor*, whose distributions partly overlap with that of *S. melanocephalus*. Both *S. fallax* and *S. bicolor* are on average of larger body size and have longer elytra, but there is some overlap. A reliable separation of relatively large *S. melanocephalus* with comparatively long elytra from small-sized specimens of *S. fallax* and *S. bicolor* is possible only based on the male primary and secondary sexual characters.

D i s t r i b u t i o n a n d b i o n o m i c s : Based on the material examined, *S. melanocephalus melanocephalus* has a trans-Palaearctic distribution ranging from north-eastern Spain and France to the Russian Far East (Map 2). According to HOEBEKE (1991) and SMETANA (2004), it is introduced in North America. The vague record from "India orientalis" by KRAATZ (1859), an extensive and weakly defined region, is most likely to refer to the Himalaya or its outliers. In the Eastern Palaearctic, it has been reported also from China (SMETANA 2004). In Middle Asia, it was previously known only from

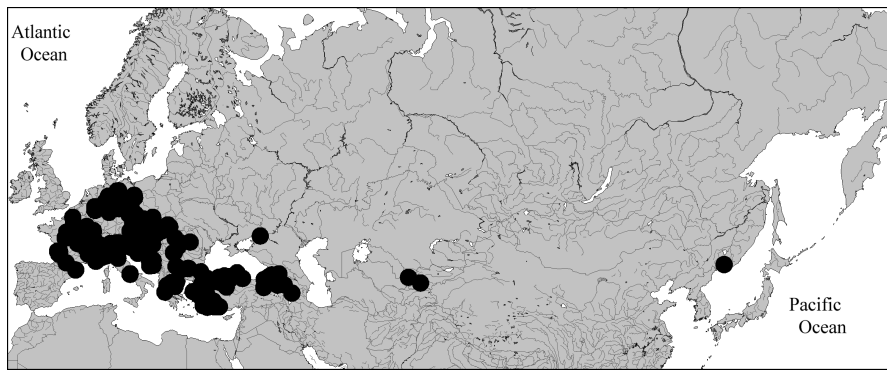
Kazakhstan (KASHCHEEV 2002), a record omittted by SMETANA (2004). The species is here reported from Uzbekistan for the first time. In the Western Palaearctic region, *S. m. melanocephalus* is widespread (Map 3), its general distribution resembling that of a ponto-Mediterranean species. It is apparently absent from Spain (except for the extreme northeast), Italy south of Abruzzi, and most of Scandinavia. Previous records from central and southern Spain, e. g. by SCHEERPELTZ (1958), are likely to be based on misidentifications. According to LUNDBERG (1995), it is unknown from Norway and Finland, and in Sweden it is confined to the south. In addition to the countries listed above, SMETANA (2004) indicates it for Belgium, Denmark, the British Isles (see also JOY 1932), Latvia (first record by CIBUĻSKIS (2001)), the Netherlands, Poland, Sweden, Ukraine (see also GUSAROV 1989), and Yugoslavia, but does account for previous records from Luxemburg (DRUGMAND 1993). SAINTE-CLAIRE DEVILLE (1906) reports it from Corsica. However, in view of the high incidence of confusion with similar widespread species (*S. fallax*, *S. bicolor*, etc.) in the collections examined, these records require verification. This particularly applies to the records from Ukraine and Corsica. Previous records from Crete (e. g. HORION 1965), for instance, doubtlessly refer to *S. fallax* (numerous specimens examined).




**Map 2**: Distributions of *Sunius melanocephalus melanocephalus* (FABRICIUS) (filled circles) and *S. m. anatolicus* ASSING (open circles) in the Western Palaearctic region, based on examined records. Grey circles: records with aedeagus of transitional condition between the typical character states of both subspecies.

The material examined was found in a remarkably wide range of habitats, especially in unforested biotopes, but never in dense forests: in various types of grassland (xerothermous calcareous and other dry grassland, pastures, moist and dry meadows), in swamps, arable land, parks, gardens, salt pits, sand pits, and on river banks. A large proportion of the specimens was collected with pitfall traps, the remainder was sifted from the leaf litter of deciduous trees (oak, hornbeam, apple trees, prune trees, poplar, willow), from compost, circus dung, haystacks, flood debris (January, March), from the nests of moles (January, February) and voles (March), or found with ants, usually in winter and early

spring (*Formica* spp.: February, May, December); *Camponotus* sp. (January); *Lasius fuliginosus*: on one occasion 17 specimens in January)). One micropterous specimen was collected with a sweep-net in July. For similar literature data see HORION (1965), who additionally gives the following habitats: moss, nests of "*Lasius niger*", under bark of trees. JANÁK & VYSOKÝ (1992) report three records from nests of *Formica pratensis* in January and March. For additional records from mole nests see e. g. HORION (1933), NOVOSAD (1990), OSELLA & ZANETTI (1974), and STROUHAL & BEIER (1928); OSELLA & ZANETTI (1974) observed *S. melanocephalus* in this habitat only during the period from January through March. FRANZ (1938) recorded it from fox burrows in Austria.




**Map 3**: Distribution of *Sunius melanocephalus* (FABRICIUS) in the Palaearctic region, based on examined records.

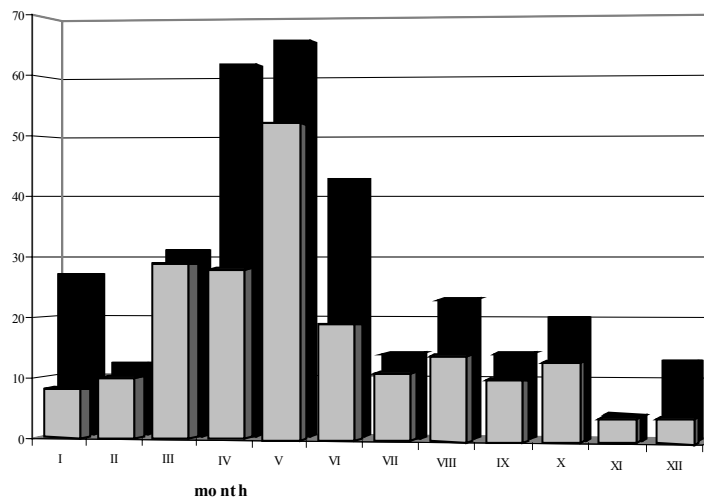



**Fig. 2**: Seasonal distribution of *Sunius melanocephalus melanocephalus* (FABRICIUS), based on examined specimens (black bars) and records (grey bars).

Adult beetles have been found throughout the year, with a maximum in spring (Fig. 2). Teneral beetles were observed in July, August, and October. The ovaries of a dissected female collected in June contained a mature egg. These observations suggest that ovi-

position takes place in spring and pre-imaginal development is completed in summer and autumn. BOHÁČ (1985) reported "immature" specimens in April and October, which HOEBEKE (1993) mistook as larval records. In the light of the present data, however, the record of teneral beetles in April seem rather unlikely.

### 4.1.2. *Sunius melanocephalus anatolicus* ASSING 1995, nov.stat. (Map 2)

*Sunius anatolicus* ASSING 1995: 269.

Additional material examined: Turkey: Balıkesir: 1 ex., Bandırma, 28.VII.2004, leg. Defne (cAnl). Zonguldak: 2 exs. [aedeagus transitional between that of *S. m. melanocephalus* and *S. m. anatolicus*], 20 km E Karabük, 22.-23.VI.1996, leg. Vávra (cAss, cVav). Ankara: 2 exs., SE Ankara, N-Elma Dağı, 1300 m, hollow *Salix* trunk, 31.X.1995, leg. Vit (cAss); 3 exs., SE Ankara, N-Elma Dağı, Yakupabdal, 1100 m, *Salix* trunk, 31.X.1995, leg. Vit (cAss).

Comments: *Sunius anatolicus* was originally described as a distinct species. The aedeagal differences between *S. melanocephalus* from Europe and most regions in northern Anatolia on the one hand and *S. anatolicus* from southern Anatolia on the other are distinct. However, in the meantime males from western and northwestern Anatolia with transitional character states have been seen, so that *S. anatolicus* should be regarded as a subspecies of *S. melanocephalus* rather than a distinct species.

Diagnosis: In external morphology highly similar to the nominal subspecies, but elytra usually longer and macropterous morph much more common.

♂: sternites VII and VIII as in the nominal subspecies; aedeagus with apex more strongly bent in lateral view; for illustrations see ASSING (1995).

Distribution: The subspecies has become known from Western and southwestern Turkey, as well as from the Greek island Lesbos (Map 2). For additional records see ASSING (1995, 2001a, 2005a, 2005d).

### 4.2. *Sunius fallax* (LOKAY 1919) (Map 4)

*Medon fallax* LOKAY 1919: 22.

Type material examined: see ASSING (1995).

Comment: The type material of *S. fallax* was studied by GUSAROV (1994) and ASSING (1995). GUSAROV (1994) designated a lectotype.

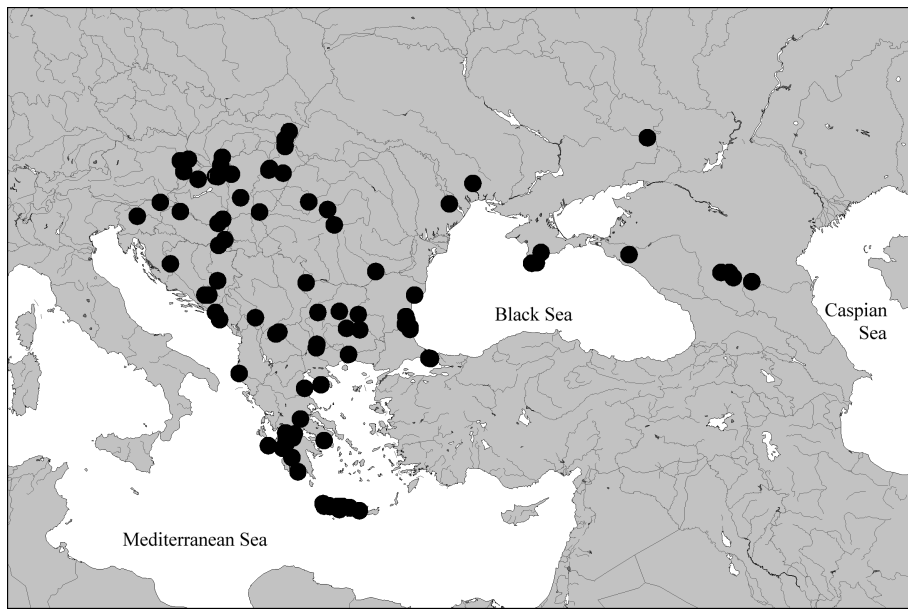
Additional material examined: Austria: Burgenland: 1 ex., Leithagebirge, leg. Franz (NHMW); 1 ex., Neusiedlersee, leg. Franz (NHMW); 13 exs., Zurndorf, leg. Franz (NHMW, cAss); 2 exs., Weiden am See, flood debris, 7.IV.1991, leg. Sprick (cAss). Slovakia: 1 ex., Trebišov env., 19.IV.1997, leg. Smatana (cSch); 1 ex., Malá Bara env., 7.IV.2001, leg. Smatana (cSch); 1 ex., Štúrovo, IV.1985 (cSch); 1 ex., Král. Chlmec, 22.VII.1954, leg. Smetana (cBoh); 2 exs., same locality, 22.IV.1955 (cBoh); 1 ex., Želiozovce, 29.IV.1979, leg. Adámek (cBoh). Hungary: 1♀, Bugac National Park, grassland, pitfall, 26.VIII.1987, leg. Gallé (cAss); 1 ex., Hortobágy N. P., Egyek, 22.-23.X.1975, leg. Hámori (HNHM); 1 ex., Makó, 4.III.1902 (HNHM); 1 ex., Pinnye, leg. Streda (HNHM); 1 ex., Vértes h.[Mts.], Mária-szakad[ék], 24.III.1961, leg. Endrödy-Y. (HNHM); 1 ex., Vértes h. [Mts.], Csákvár, 24.III.1961, leg. Endrödy-Y. (HNHM); 1 ex., Debrecen, 1935, leg. Rostkowicz (HNHM); 1 ex., Budapest, Hajógyári sziget, Peregi (HNHM); 1 ex., Pápa, 1898, leg. Wachsmann (HNHM); 1 ex., Mohács, 1904, leg. Kaufmann (HNHM); 1 ex., Villányi h. [Mts.], Villány, 19.IV.1994, leg. Renner (cRen); 1 ex., Tiszacsege, car-net. 11.VII.2001, leg Renner (cRen). Romania: 1 ex., Sibiu, hollow tree, 23.IV.2003, leg. Vít (cAss); 1 ex., Sibiu, leg. Kuthy (HNHM); 1 ex., Comana Vlasca, leg. Montandon (HNHM); 1 ex., Apuseni mts., Cluj county, Cheile Turzii [= Cheile gorges],

29.IV.1962, leg. Comellini (MHNG); 1 ex., M.-bagó [Magyarbagó=Băgău], Nagy Ignác (HNHM). Slovenia: 1 ex., Maribor, leg. Lang (MHNG); 1 ex., Ljubliana, Zg. Kašeli, 16.V.1996, leg. Drovenik (cAss). Croatia: 1 ex., Draga river, leg. Padewieth (HNHM); 3 exs., Ludbreg, leg. Apfelbeck (HNHM); 1 ex., Vinkovci (DEI). Bosnia-Herzegovina: 1 ex., Mostar (cAss); 1 ex., Derventa (HNHM); 7 exs., locality not specified (HNHM); 2 exs., Bosna valley, VIII.1900, leg. Leonhard (DEI); 3 exs., Velež planina, 1900, leg. Leonhard (DEI); 1 ex., Trebinje, 1903, leg. Leonhard (DEI); 1 ex., locality illegible, 6.VII. [year illegible] (cBoh). Macedonia: 1 ex., Skopje, 26.V.-5.VI.1955, leg. Schubert (cAss); 1 ex., Skopje env., Matka, bank of Treska river, 18.V.1980, leg. Hieke (MNHUB). Montenegro: 4 exs., Herzeg-Novi, leg. Paganetti (DEI). Yugoslavia: 1 ex., Serbia, Dečani, 1916, leg. Csiki (HNHM); 1 ex., Serbia, Kragujevac, 28.IX.1941 (cBoh). Albania: 3♀♀, Vlorâ ["Avlona"], leg. v. Oertzen (MNHUB). Bulgaria: 1 ex., Stara planina, Babin Nos, N Rakovischki Manastir, 43°46'N, 22°45'E, 585 m, *Tilia* forest, 15.V.1006, leg. Zerche & Behne (DEI); 1 ex., Stara planina, 5 km S Ribaritza, 42°45'N; 24°23'E, 750 m, beech forest, 7.VI.1997, leg. Zerche & Behne (DEI); 1 ex., Stara planina, Dolno Sachrane, G. Dimitroff reservoir, 18.V.1984, leg. Wrase (cSch); 3 exs., Primorsko, 16.IX.1977, leg. Hieke & Uhlig (MNHUB, cAss); 17 ex., Mičurin, 18.IX.1977, leg. Hieke & Uhlig (MNHUB, cAss); 3 ex., 2 km S Mičurin, bank of canal, *Typha-Phragmites* vegetation, 29.-30.VI.1979, leg. Hieke & Uhlig (MNHUB); 1 ex., 5 km W Jasna Poljana [= Yasna Polyana], bank of Ropotamo river, 17.IX.1977, leg. Hieke & Uhlig (MNHUB); 1 ex., Rupito env., near General Todorov, 22.-23.IV.1984, leg. Hieke (MNHUB); 1 ex., Sofia, 16.-22.VII.1984, leg. Opitz (MNHUB); 1 ex., Burgas, Sozopol, 3.V.1987, leg. Heinig (cSch); 1 ex., Kranevo, 16.IX.1966, leg. Nohel (MHNG); 3 exs., "Rhodope", 1911, leg. Hilf (DEI); 1 ex., Plovdiv, Skobelevo [42°05'N, 25°22'E], X.1967 (MHNG); 1 ex., Plovdiv, 12.VII.1987, leg. Arnold (cSch); 3 exs., Sandanski Struma, 10.VI.1983, leg Behne (cSch); 1 ex., Sandanski, VII.1985, leg. Schülke (cSch); 2 exs., Sandanski, 6.-11.V.1984, leg. Wrase (cSch); 2 exs., Pomorie env., V.1985, leg. Wrase (cSch); 1 ex., Melnik, 29.IV.1985, leg. Wrase (cSch); 1 ex. [macropterous], Arbutino [?], VI.1976, leg. Visa (cBoh). Greece: m a i n l a n d : 8 exs., Thessalia, NE Ossa Oros, Stómio, 39°55'N, 22°41'E, floodplain forest, 5.IV.1998, leg Assing, Schülke, Wunderle (cAss, cSch, cWun). 1 ex., Fthiotis, SSE Lamia, Oros Kallidromo, 38°45'N, 22°28'E, fir forest, 940 m, 6.IV.2001, leg. Assing (cAss); 3 exs., Chalkidiki, Kassandra, Polichoron, under stone, 20.III.1989, leg. Assing (cAss); 1 ex., Kassandra, Polichoron, 26.III.1989, leg. Assing (cAss); 3 exs., Nomós Xanthi, Néstos delta, near Toxotes, 25.IV.1994, leg. Schawaller (SMNS, cAss); 1 ex., Attica, Pireás (MHNG). P e l o p ó n n i s o s : 2 exs., 15 km SE Egio, Diafkoto, 0-200 m, 26.III.-3.IV.1997, leg. Assing (cAss); 1 ex., Pelopónnisos, Patras, olive grove, 29.III.1986, leg. Assing (cAss); 1 ex., Erimanthos, above Kalendzi, 37°57'N, 21°47'E, 1500 m, 27.III.1997, leg. Assing (cAss); 1 ex., Meligalas, Derveni, 600 m, 26.III.1992, leg. Frisch (MNHUB); 1 ex., 30 km N Pirgos, Koúmanis, 37°47'N, 21°45'E, 630 m, oak forest with *Erica*, 31.III.1997, leg. Zerche (DEI); 1 ex., Agios Vlassos, leg. Brenske (SMNS); 3 exs., Olympia: O. Alfios, 7.IX.1995, leg. Zoia (cZan); 1 ex., Taygetos, Kalamata, Elehohori, 600 m, 4.IV.1989, leg. Daccordi (cZan); 1 ex., locality not specified (cBoh). Z a k i n t h o s : 2♀♀, Kalamaki, 1909, leg. Hilf (DEI). C r e t e : 3 exs., Omalos, 17.III.1976, leg. Meybohm & Fülscher (cAss); 1 ex. [macropterous], W-Crete, Lefka Ori, Prases, pine litter and moss, 13.X.1991, leg. Wunderle (cWun); 10 exs. [macropterous], W-Crete, Elos, 300 m, chestnut litter, 7.X.1991, leg. Wunderle (cWun); 1 ex., SE Réthimno, Moni Arkadiou, 3.VII.1978, leg. Tronquet (cTro); 4 exs., Damnoni near Plakiás, VII.1978, leg. Tronquet (cTro); 1 ex., Plakias, 31.III.1988, leg. Winkelmann-Klöck (cSch); 5 exs., Vrisses, 50 m, stream bank, 12.VI.2002, leg. Feldmann (cFel); 2 exs., Amari, 4.VII.1906, leg. Biró (HNHM); 3 exs., Chania, Kavallos, 1.-3.VI.1981, leg. Mühle (MNHUB, cAss); 1 ex., Anogia, 14.III.1973, leg. Fülscher & Meybohm (MHNG); 1 ex., locality not specified, leg. Paganetti (NHMW). Moldavia: 1 ex., Slobodzeya env., VIII.1983, leg. Arnold (cSch). Ukraine: 3 exs., Odessa, Beresovka, Beresovka forest, 14.X.2003, leg. Gontarenko (cAss); 2 exs., Crimea, Simferopol, Krasnolesye, 4.VIII.1986, leg. Gusarov (cTro); 4 exs., Crimea, Iaila range, leg. Winkler (DEI, HNHM, cAss); 2 exs., Iaila range, "Ai-Petr.", 1300 m, 2.VI.1983 (cBoh); 1♀, Crimea, upper course of Uzundzha river, 700 m, beech forest, 25.VII.2001, leg. Koval (cAss); 1 ex., Baidar "Tbo", leg. Knirsch (SMNS); 1 ex., Voroshilovgrad area, Stanichno-Lugansky State Reserve, near Kondrashevka, floodland oak forest, 11.-13.VI.1989, leg.Golovatch & Penev (SMNS). Turkey: see ASSING (2005a). Russian Federation: 1 ex., Krasnodar, Mt. Sober near Ubinskaja, 600 m, 5.-7.VI.1989, leg. Arndt (cAss); 1 ex., Stavropol, 3 km E Zheleznovodsk [44°08'N, 43°01'E], mixed deciduous forest near stream, 30.V.1982, leg. Golovatch (cBoh); 1 ex., Stavropol, E Novopavlovsk, mixed deciduous forest near stream, 28.V.1982, leg. Golovatch

(cAss); 2 exs., Stavropol, E Georgievsk, mixed deciduous forest, 28./31.V.1982, leg. Golovatch (cBoh, cAss); 3 exs., N-Ossetia, 10 km NW Mozdok, *Acacia* hedge at field margin, litter, 28.V.1982, leg. Golovatch (cBoh).

D i a g n o s i s : In external morphology highly similar to *S. melanocephalus*, wing-dimorphic, distinguished only by the – on average – slightly larger and broader body and especially by the male primary and secondary sexual characters.

♂: sternite VIII with shallow posterior excision, in median area with cluster of dense dark modified setae; aedeagus as figured by ASSING (1995).




**Map 4**: Distribution of *Sunius fallax* (LOKAY) in the Western Palaearctic region, based on examined records.

D i s t r i b u t i o n a n d b i o n o m i c s : Based on the material examined, the species is distributed from the southeast of Central Europe (with the northwesternmost records from southeastern Austria and from Slovakia), to southeastern Europe (including Ukraine and Crete), northwestern Turkey, and the Caucasus region (Map 4). This distribution is difficult to categorise according to LATTIN (1967). The absence from most of Turkey does not support a ponto-Mediterranean distribution, nor does the presence in southern Greece (including Crete) suggest a Caspian glacial refuge. The species is here reported from Slovenia, Croatia, Serbia, Montenegro, and Albania for the first time. It is not listed for Austria, Ukraine, and the Western Caucasus region by SMETANA (2004), although it was reported from there several times (e. g. GONTARENKO 2003; GUSAROV 1989; HORION 1965; SOLODOVNIKOV 1998) and although the types of the junior synonym *S. austriacus* (COIFFAIT 1961) are from Austria. In addition to the Burgenland, HORION (1965) reports the species from the Austrian provinces Niederösterreich, Steiermark, and Kärnten, but I have seen only *S. melanocephalus* from there. Recently, it was for the first time recorded from Ukraine by GUSAROV (1989), from Romania by STAN (2006), and from Turkey by ASSING (2005a). For additional records see ASSING

(1995), BOHÁČ (1985), GONTARENKO (2003), SMETANA (1964), and SOLODOVNIKOV (1998). Owing to the misinterpretation of the species by COIFFAIT (1970, 1984), which is identical to *S. melanocephalus anatolicus* (see GUSAROV 1994 and ASSING 1995), literature data before the mid-1990s are generally unreliable, except for some articles giving illustrations of the aedeagus.

The species is wing-dimorphic, which explains its rather extensive range of distribution. Almost all the specimens seen from Crete, Zakinthos, and the Pelopónnisos are macropterous, whereas in the remainder of the distribution the vast majority of specimens is brachypterous.

Like *S. melanocephalus*, *S. fallax* inhabits a wide range of habitats, but was often found also in forested biotopes. The material examined was collected in various types of forests (beech, oak, chestnut, lime, fir, mixed deciduous forests, floodplain forests), often near rivers and streams. In addition, it has been taken in olive groves, in fields, montane grassland, in a hollow tree, on or near the banks of rivers and canals, and on lakeshores, repeatedly in flood debris (especially in later winter and early spring; see also HORION (1965) and SMETANA (1964)). The species has been collected with pitfall traps, by sifting leaf litter, by turning stones, and on one occasion with a car-net (July). The vast majority of records are from low and intermediate elevations; once it was found at 1500 m (Greece).

The material examined was found from March through October, with a minimum in October: March (13 records/17 specimens); April (14/25); May (10/14); June (10/20); July (11/15); August (5/7); September (6/26); October (5/16). HORION (1965) also reports records from February.

### 4.3. *Sunius propinquus* (BRISOUT DE BARNEVILLE 1867) (Fig. 3, Map 5)

*Lithocharis propinqua* BRISOUT DE BARNEVILLE 1867: 116.
*Hypomedon propinquus* var. *parvipennis* COIFFAIT 1961: 22; unavailable name.

C o m m e n t : *Hypomedon propinquus* var. *parvipennis* was described by COIFFAIT (1961) based on material from Sardinia, but according to Article 45.6.3 of the Code (ICZN 1999), the name is infrasubspecific and consequently unavailable. The "type" specimen was examined; in contrast to the description by COIFFAIT (1961), it is not brachypterous.

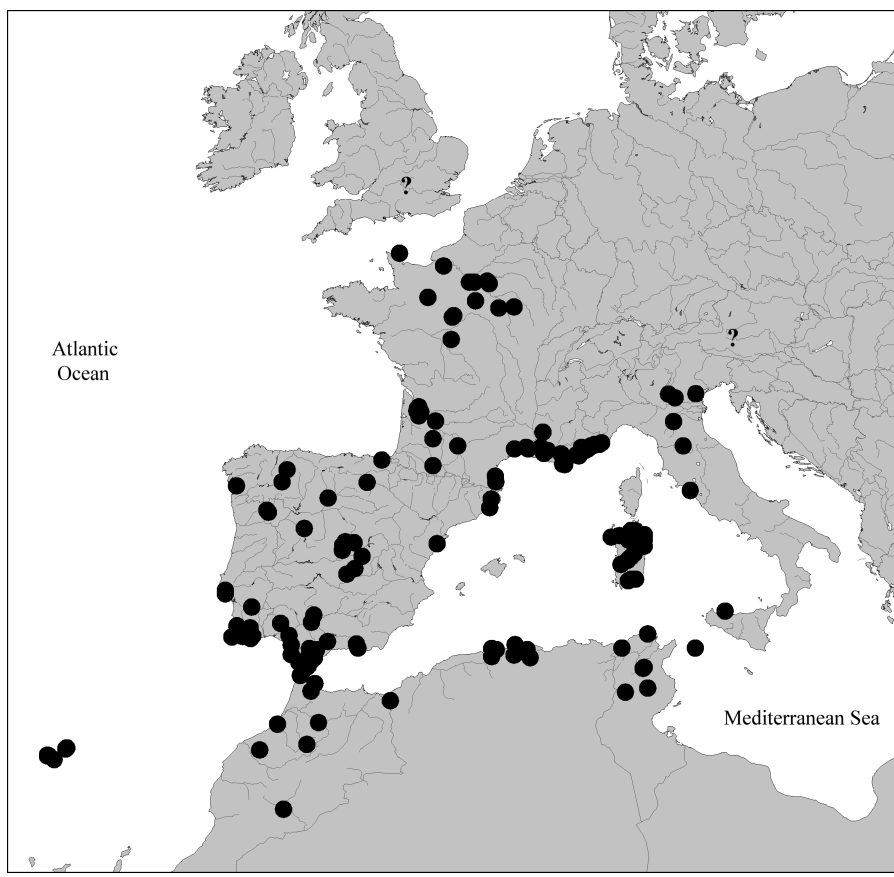
A d d i t i o n a l m a t e r i a l e x a m i n e d : Tunisia [see also ASSING 2005b]: 1 ex., Teskraia near Bizerta, 16.III.1984, leg. Meybohm (cAss); 6 exs., Aïn Draham, VIII.1944, leg. Demoflys, Grosclaude (cTro); 5 exs., Aïn Draham, VIII.1945, leg. Demoflys (cTro); 1 ex., Aïn Draham, VI.1947, leg. Demoflys (cTro); 1 ex., Aïn Draham, leg. Normand (MHNG); 1 ex., Kasserine env., IV.1937, leg. Demoflys (cTro); 1 ex., Aïn Soltane, 23.-26.III.2003, leg. Lackner (cAss); 2 exs., Radès (MHNG). Algeria: 2 exs., Grande Kabylie, Oued Sébaou, W Dellys, 20.V.1988, leg. Besuchet, Löbl & Burckhardt (cAss); 1 ex., Djurdjura, Ahnif S M. Chedallah, Oued Sahel, 9.V.1988, leg. Besuchet, Löbl & Burckhardt (cAss); 1 ex., Draa el Mizan, leg. Ancey (DEI); 1 ex., Algier (cAss); 4 exs., Yakouren (MHNG); 1 ex., Blida (MHNG); 1 ex., Maghnia ["L.a Marnia"], leg. Méquignon (MHNG); 1 ex., Algier env., Sidi Feredj, VII.1980, leg. Strejček (cBoh); 2 exs., "Kabylia", leg. Ancey (DEI); 1 ex., locality not specified (MHNG). Morocco: 1 ex., Tanger, 3.II.2001, leg. Lackner (cAss); 8 exs., Tanger, leg. Rolph (DEI); 1 ex., Moyen Atlas, Timhadite, 200 m, 18.VII.1993, leg. Stüben (cWun); 1 ex., Settat, 20.XII.1972, leg. Tavakilian (cTro); 1 ex., Ourika ["Urika"], leg. Quedenfeldt (cAss); 1 ex., Rabat (MHNG); 1 ex., Fès (MHNG); 15 exs., Ar Rif, Oued Laou env., 35°29'N, 05°07'W, 200 m, 7.-9.VI.2007, leg. Hlaváč (cAss); 1 ex. [teneral], Ar Rif, Chefchaouen, 35°12'N, 05°19'W, 270 m, 3.VI.2007, leg. Hlaváč

(cAss); 17 exs., locality not specified (MHNG). Portugal: Madeiras [see also ASSING & SCHÜLKE 2006]: 1 ex., Porto Santo, Pico Branco, leg. Franz (NHMW). Açores: 1 ex., Flores, Santa Cruz, 5.VIII.1986, leg. Gillerfors (cKöh). Mainland: 1 ex., Vila Real, Lilela/Valpacos, 28.VIII.1969, leg. Senglet (cAss); 1 ex., Vila Real, Valpacos, 28.VIII.1969, leg. Senglet (cAss); 1 ex., Lisboa, IV.-V.1910, leg. Schatzmayr (DEI); 1 ex., Beja, S Luiz/Odemira, 9.-10.IX.1969, leg. Senglet (cAss); 1 ex., Beja, Monte de Cavaleiro, Almodovar, 15.IX.1969, leg. Senglet (cAss); 1 ex., Beja, Alvito, XII.1997, leg. Poot (cWun); 3 exs., Lisboa, Loures, 5.VIII.1971, leg. Senglet (cAss); 2 exs., Faro, Bordeira/Aljezur, 11.IX.1969, leg. Senglet (cAss); 3 exs., Faro, Norinha, 4.IX.1969, leg. Senglet (cAss); 1 ex., Algarve, 10 km N Sào Bras de Alportel, 400 m, 4.VI.1992, leg. Wunderle (cWun); 1 ex., Algarve, Loule, 25.II.2002, leg. Hetzel (cFel). Spain: Galicia: 2 exs., Pontevedra, leg. Franz (NHMW, cAss). Asturias: 1 ex., locality not specified, leg. Paganetti (MNHUB). Castilla-León: 1 ex., Caboalles, leg. Paganetti (DEI); 1 ex., Ponferrada, leg. Paganetti (DEI); 1 ex., Palencia, leg. Paganetti (HNHM); 1 ex., 3 km E Salamanca, La Flecha, Cabrerizos, 6.III.1999, leg. Wrase (cSch). País Vasco: 6 exs., Guipúzcoa, Orio, 24.VII.1968, leg. Besuchet (MHNG, cAss). La Rioja: 1 ex., Briones, 5.XI.1988, leg. Colón (DEI). Cataluña: 1 ex., Barcelona env., Tordera, pasture, 2.IV.1986 (cAss); 1 ex., Gerona, "R. Terlori Derecha", III.1954, leg. González (MHNG). Madrid: 1 ex., Aranjuez, leg. Franz (NHMW); 1 ex., Alcalá de Henares, 17.II.1951 (NHMW); 1 ex., El Pardo, Torre la Parada, 9.II.1951 (NHMW); 4 exs., 10 km W Madrid, Boadilla del Monte, Valdepastores, 21.-23.I.1998, leg. Wrase (cSch, cAss); 6 exs., same data, but 25.II.-2.III.1999 (cSch); 2 exs. [1 teneral], same data, but 6.VII.1996, leg. Wrase (cSch); 1 ex., 20 km SW Madrid, 2 km NW Batres, 8.II.1998, leg. Wrase (cSch). Castilla-La Mancha: 1 ex., Toledo, Laguna de Peña, Villacañas, 8.III.1999, leg. Wrase (cSch); 14 exs., Toledo, Urda, 12.VIII.1969, leg. Comellini (MHNG, cAss). Valencia: 6 exs., Castellón, Benicarlo, Cálig, 6.V.1966, leg. Besuchet (cAss). Andalucía: 1 ex., Sierra de Ronda, Mte. Arastepa, leg. Franz (NHMW); 6 exs., Huelva, Zalamea la Real, 6.VII.1969, leg. Comellini (MHNG); 3 exs., Granada, La Rabita/Albuñol, 9.VII.1971, leg. Senglet (cAss); 2 exs., Granada, Sierra Nevada, Notaez Rio, Gudalfeo, 670 m, 15.VI.1991, leg. Wrase (cSch); 1 ex., Sevilla, Villamanrique de la Condesa, Vereda los Labrados, 19.XI.2994, leg. Baena (cAss); 2 exs., Málaga, Estepona, X.1968, leg. Benick (MNHUB); 8 exs., Costa del Sol, bank of Guadiaro river, 28.-31.X.1968, leg. Benick (cAss); 4 exs., bank of Guadjaro river, 28.X.1968, leg. Benick (MNHUB, cAss); 1 ex., Sierra del Hacho, 36°31'N, 5°21'W, 800 m, N-slope, 21.II.2000, leg. Meybohm (cAss); 7 exs., Cordoba, Palma del Rio, 26.VI.1969, leg. Comellini (MHNG, cAss); 6 exs., Malaga, Antequera, 1.VIII.1969, leg. Comellini (MHNG); 1 ex., Cádiz, Laguna de la Janda [36°15'N, 5°51'W], 10.V.1966, leg. Besuchet (cAss); 2 exs., Cádiz, Sierra de Grazalemma, 1220 m, 2.X.1993, leg. Wunderle (cWun, cAss); 1 ex., Cádiz, Tahivilla, 18.XII.1995, leg. Poot (cWun); 1 ex., Cádiz, Tarifa, I.1997, leg. Poot (cWun); 1 ex., Cádiz, San Roque, 28.V.-4.VI.1991, leg. Wrase (cSch); 1 ex., Cádiz, Senorbi, 10.XI.1974, leg. Meloni (cBoh); 3 exs., Algeciras, leg. Reitter, Simon (HNHM); 1 ex., Cádiz, Jimena de la Frontera, 5.-6.VI.1991, leg Wrase (cAss); 1 ex., Cádiz, Marisma de Trebujena, bank of Guadalqivir river, 31.I.1998, leg. Wrase (cSch); 1 ex., Córdoba, Sierra de Homachuelos, Las Aljabares, 300 m, 22.II.1999, leg. Wrase (cSch); 2 exs., "Andalus." (DEI). Locality not specified: 1 ex., "Hispania", leg. Baudi (HNHM). France: Basse-Normandie: 3 exs., Réthôville, beach, 20.IX.2003, leg. Tronquet (cTro); 2 exs., St.-Céneri-le-Gérei, leg. Demoflys (cTro). Haute-Normandie: 1 ex., Eure, locality illegible, III.1956 (MHNG); 1 ex., Eure, Appeville-Annebault (MHNG). Aquitaine: 1 ex., Gironde, Latresne, 17.III.1929, leg. Tempère (MHNG); 1 ex., Gironde, La Grave, IV.1925, leg. Tempère (MHNG); 1 ex., Gironde, Camarsac, 15.VII.1934, leg. Tempère (MHNG); 2 exs., Gironde, Cubzac-les-Ponts, 14.IV.1929, leg. Tempère (MHNG); 6 exs., Gironde, Cambes, X.1931 (MHNG); 2 exs., Gironde, "Arlac", leg. Clermont (MHNG); 1 ex., Bordaux, bank of Garonne, 16.III.1930, leg. Tempère (MHNG); 1 ex., Bordeaux, 4.II.1927, leg. Tempère (MHNG); 3 exs., Bordeaux, leg. Giraud (MHNG); 1 ex., Bordeaux (MHNG); 6 exs., Lot-et-Garonne, Seyches, 6.X.1925, leg. Tempère (MHNG). Midi-Pyrénées: 1 ex., Gers, Montréal, VIII.2002, leg. Brustel (cTro); 1 ex., Merville, forest, pitfall, 5.VII.2005, leg. Danflous (cTro); 1 ex., Hautes-Pyrénées, Argelès (cSch). Languedoc-Roussillon: 1 ex., Argelès-sur-Mer, leg. Normand (MHNG); 1 ex., Torreilles, 20.I.2003, leg. Tronquet (cTro); 1 ex., Hérault, Montpellier, leg. Perrault (MHNG); 4 exs., Camargue, Albaron, 10.II.1931, leg. Thérond (MNHUB); 2 exs.,

Gard, Saint-Gilles, Le Grand Bois, 27.III.1978, leg. Kiener (MHNG, cAss). B o u r g o g n e : 1 ex., Piffonds, mole nest, 15.III.1969, leg. Tronquet (cTro); 1 ex., Camargue, Montcalm [43°34'N, 04°19'E], 18.VII.1981, leg. Zanetti (cZan). Î l e - d e - F r a n c e : 1 ex., Saulx-Marchais, 2.VII.1976, leg. Tronquet (cTro); 2 exs., Pontcarré, mole nest, 28.I.1971, leg. Tronquet (cTro); 2 exs., Noisiel, inundation of Marne river, 6.III.1970, leg. Tronquet (cTro); 1 ex., Noisiel, inundation of Marne river, 27.II.1970, leg. Tronquet (cTro); 1 ex., Yvelines, Bailly, mole nest, 1.III.1969, leg. Tronquet (cTro); 1 ex., Bailly, 29.III.1969, leg. Tronquet (cTro); 1 ex., Bailly, mole nest, 31.I.1971, leg. Tronquet (cTro); 1 ex., Yvelines, Ste. Gemme, mole nest, 6.II.1972, leg. Tronquet (Tro). C e n t r e : 1 ex., Autruy-sur-Juine [48°16'N, 2°06'E], 11.XI.1970, leg. Tronquet (cTro); 10 exs., Indre-et-Loire, Perrusson, inundation, leg. Méquignon (MHNG); 5 exs., Vendôme, leg. Méquignon (MHNG); 4 exs., Loir-et-Cher, Meslay, I.1910, leg. Méquignon (MHNG). C h a m p a g n e - A r d e n n e s : 2 exs., 29 km SW Troyes, Le Champion, 21.V.1979, leg. Kanaar (cSch). P r o v e n c e : 1 ex., Vaucluse, Malaucene, camping site, 16.V.1994, leg. Schülke & Grünberg (cSch); 1 ex., Bouches-du-Rhône, Salon-de-Provence, 1.IV.2003, leg. Renner (cRen); 1 ex., Bouches-du-Rhône, Eyguières, leg. Perrot (MHNG); 2 exs., Bouches-du-Rhône, Camargue, leg. Puel (MHNG); 1 ex., Var, Tanneron, car-net, VI.1988, leg. Wunderle (cWun); 4 exs., Var, Bras, IV.1971, leg. Tronquet (cTro); 4 exs., Var, Roquebrune-sur-Argens, leg. Demoflys (cTro); 1 ex., Var, Hyères (DEI); 1 ex., Hyères, XI.1961 (MHNG); 1 ex., Var, La Garde (MHNG); 2 exs., Menton (MNHUB); 1 ex., Cannes (DEI); 2 exs., Var, locality illegible, inundation, X.1958 (MHNG); 1 ex., Var, Aflens inundation, XII.1950 (MHNG); 1 ex., Var, Gapean inundation, X.1959 (MHNG); 1 ex., Var, Pierefei inundation, XII.1959 (MHNG); 1 ex., Var, Argens inundation, IV.1956 (MHNG); 1 ex., Alpes-Maritimes, Loup inundation, leg. Ochs (MHNG); 1 ex., Loup inundation, X.1959 (cAss); 1 ex., Alpes-Maritimes, Mandelieu, X.1947 (MHNG); 1 ex., Alpes-Maritimes, St.-Augustin, III.1957 (cAss); 2 exs., St.-Augustin, leg. Ochs (MHNG); 2 exs., Alpes-Maritimes, St.-Vallier-de Thiey, VIII.1978, leg. Toumayeff (MHNG); 2 exs., Nice, leg. Bedel (MHNG). L o c a l i t y n o t s p e c i f i e d : 1 ex., "Gallia" (HNHM); 1 ex., "Mittel-Frankr." (DEI). Monaco: 2 exs. (MHNG, cAss). England: 2 exs., locality not specified, leg. Sbiere (NHMW). Austria: 1 ex., locality not specified, leg. Paganetti (MNHUB). Italy: L i g u r i a : 1 ex., San Remo, leg. Schneider (DEI); 8 exs., Bordighera, 1884 (DEI). V e n e t o : 1 ex., Custoza (VR), Val dei Molini, 24.XI.1974, leg. Zanetti (cZan); 1 ex., same locality, base of *Salix*, 22.I.1996, leg. Tagliapietra (cZan); 5 exs., Mazzantica (VR) [45°18'N, 11°04'E], 15.II.1977, leg. Sette (cZan); 2 exs., Stra (VE), 27.III.1973, leg. Villabruna (cZan). E m i l i a - R o m a g n a : 2 exs., Spilamberto, 12.IX.1901, leg. Fiori (MNHUB); 2 exs., locality illegible (cBoh). T o s c a n a : 1 ex., Rignano/Arno, 29.IX.1973, leg. Castellini (cTro). L a z i o : 1 ex., Tarquinia (VT), Riva dei Tarquini, beach, 18.VII.1996, leg. Zanetti (cZan). S a r d e g n a : 2 exs., Siniscola, at light trap, 19.-20.IX.1987 (cAss); 1 ex., Lago del Coghínas, 9.IX.1982, leg. Wunderle (cWun); 1 ex., NW Telti, 350 m, 12.IV.1992, leg. Scheuern (cWun); 2 exs., Porto Ferro, beach dunes, 2.X.1989, leg. Wunderle (cWun); 10 exs., Asuni, leg. Krausse (MNHUB, cAss); 7 exs., Sorgono, 1912, leg. Krausse (DEI, MHNG, cAss); 2 exs., Ozieri, leg. Dodero (MNHUB); 1 ex., Marrubiu, 22.VI.1974, leg. Meloni (cZan); 1 ex., Capoterra (CA), Riu S. Lucia, 17.VI.1975, leg. Meloni (cZan); 1 ex., Cagliari, strada di Terramaini, base of *Eucalyptus*, 5.IX.1974, leg. Meloni (cZan); 2 exs., Flumini (MNHUB); 1 ex., Sassari, Tempio Pausania, V.1935, leg. Burlini (MHNG); 1 ex., Orosei-Galtelli (NU), car-net, 17.VII.1999, leg. Zanetti (cZan); 2 ex., "Sor. Su Gologone" (NU), 100 m, bank, 14.VII.1999, leg. Zanetti (cZan); 4 exs., Orosei, source of Cedrino river, car-net, 26.VII.1999, leg. Zanetti (cZan); 5 exs., 5 km SW Galtelli (NU), at light, 16.VII.1999, leg. Zanetti (cZan); 1 ex. [teneral], San Teodoro d'Oviddè (NU), Marina di Lu Impostu, VII.1994, leg. Zanetti (cZan); 2 exs., San Teodoro d'Oviddè (NU), Teodoro-Coda Cavallo, car-net, 5.VII.2004, leg. Zanetti (cZan); 5 exs. [1 teneral], Torpe-Ala dei Sardi (NU, SS), car-net, 0-600 m, 14.VII.2004, leg. Zanetti (cZan); 1♂: "Sardegna, Tempio Paus, Burlini, V.35 / Type / propinquus v. brachypterus [sic] Coiff." (MHNG); 1 ex., M. Crozei [?], III.1961 (MHNG); 1 ex., Fonni, 1000 m, V.1936, leg. Burlini (MHNG); 4 exs., Lotzorai, VI.1999, leg. Frank (cAss); 1 ex., locality not specified (MNHUB). P a n t e l l e r i a : 23 exs., M. Gibele, 600 m, 12.IX.1985, leg. Sette (cZan). S i c i l i a : 1♀, Palermo (DEI); 1♀, "Sicilia" DEI). Locality not specified, ambiguous, or illegible: 10 exs. (DEI, HNHM, MHNG, MNHUB); 1 ex., "Belvedere", VIII.1896, leg. Solari (MNHUB).

D i a g n o s i s : Wing-dimorphic species, but brachypterous morph very rare. Similar in external appearance to long-winged specimens of *S. fallax*, *S. bicolor*, and other bicoloured species, but distinguished by the distinct microsculpture on the head. For a high-resolution colour image see TRONQUET (2006); for illustrations of the aedeagus see COIFFAIT (1961, 1984).

C o m p a r a t i v e n o t e s : From *S. algiricus*, the only similar bicoloured species distributed in the Western Mediterranean with a distinctly microsculptured head, *S. propinquus* is separated by slightly smaller body size, a more slender body, and an aedeagus of completely different morphology.




**Map 5**: Distribution of *Sunius propinquus* (BRISOUT DE BARNEVILLE) in the Western Palaearctic region, based on examined records. The records from the Azores are omitted. ?: Records without specification of locality from "England" and "Austria".

D i s t r i b u t i o n a n d b i o n o m i c s : *Sunius propinquus* has an Atlanto-Mediterranean distribution and is widespread and rather common in the Western Mediterranean (Map 5). Material has been seen from North Africa (Tunisia, Algeria, Morocco), the Iberian peninsula, France, and Italy (including Sardinia, Sicily, and Pantelleria). The labels of the specimens examined from Great Britain and Austria do not specify

localities. For literature records from Great Britain and Ireland see e. g. JOY (1932), OWEN (1997), and LOTT (1999). SAINTE-CLAIRE DEVILLE (1906) reports the species also from Corsica, from where I have seen no material. It is the only representative of the genus known from the Madeiras and the Azores (see also ASSING & SCHÜLKE 2006). The entry for the Canary Islands in SMETANA (2004) is evidently based on an erroneous record (possibly HORION 1965) and appears to refer to one of the Canarian endemics; *S. propinquus* is not listed by MACHADO & OROMÍ (2000) and none of the numerous revised Canarian specimens of *Sunius* refers to *S. propinquus*. According to SMETANA (2004), the species has additionally been recorded from Belgium (see also DRUGMAND 1989), the Netherlands (see also STERRENBURG 1989; VORST 2004), Denmark, Sweden, Germany, Poland, Azerbaijan, and from the Australian region (probably based on the record from New Zealand by SIVASUBRAMANIAM et al. (1997)). However, the record from Azerbaijan probably refers to *S. nigrinus* or *S. fulgocephalus* and, according to HANSEN et al. (1994), the previous record from Denmark is erroneous. The same is apparently true of the record from Sweden, since the species is not listed by LUNDBERG (1995). Also, based on the revised distribution and frequent confusion with other species in the material examined, the presence in Poland is highly unlikely and the record from New Zealand seems at least doubtful and requires confirmation. The same applies to some old records from southwestern Germany (HORION 1965); no specimens were found in any of the collections examined. The species has been recorded also from Hungary (one record from Budapest) and Slovakia (one record from Nitra-Zobor based on a female) (BOHÁČ 1985; JÁSZAY 1998), but these records are clearly outside the confirmed range and almost certainly based on misidentifications.

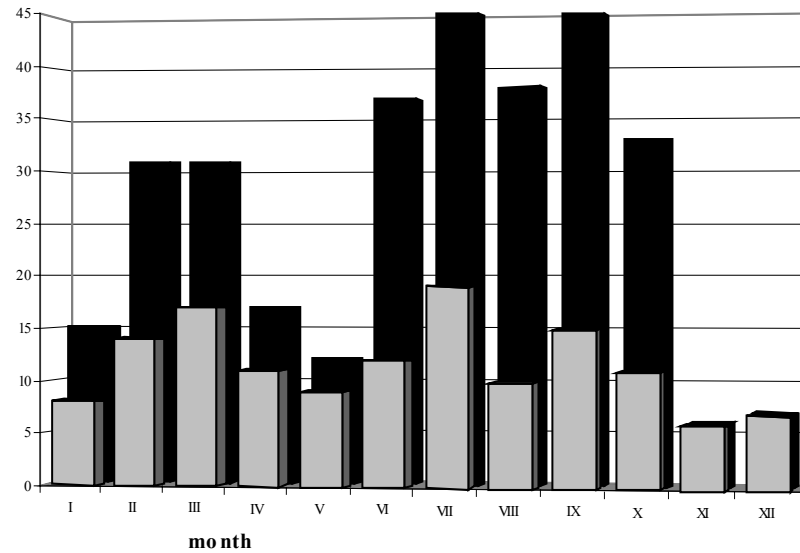



**Fig. 3**: Seasonal distribution of *Sunius propinquus* (BRISOUT DE BARNEVILLE), based on examined specimens (black bars) and records (grey bars).

The species is apparently hygrophilous. The material examined was found mostly on or near the banks of streams and rivers, near standing water (lakes, ponds), and on beaches, but also in pastures and on a camping site, usually at lower altitudes (maximum: 1220 m). The species has been collected from flood debris (numerous records in February-April, October, December), under stones, sifted from leaf litter of trees (*Salix*, *Eucalyptus*), and repeatedly found in mole nests in winter and early spring (January-March) (see also HORION 1965). Flying specimens were collected at a window pane, with car-nets and light traps in May (1 record), June (1), July (5), and September (4). According to DRUGMAND (1989), the species is synanthropic and bivoltine, with one generation present from March to May and one from June to August. His conclusions, however, are evidently based on little (possibly also misidentified) material and are not confirmed by the present study. The material examined was collected throughout the year, with the lowest number of specimens and records during the period from November through January (Fig. 3). Teneral beetles were observed in June and July, suggesting that pre-imaginal development takes place in spring, possibly also in winter. According to WELCH (1993), the ovary belongs to "type G" and is composed of 6 ovarioles.

### 4.4. *Sunius ovaliceps* (FAUVEL 1878)

*Lithocharis ovaliceps* FAUVEL 1878: 110.
*Lithocharis simoni* QUEDENFELDT 1881: 291; partim.
*Lithocharis nitida* QUEDENFELDT 1881: 291; partim.
*Medon fagniezi* PEYERIMHOFF 1916: 240 ff.; **nov.syn.**
*Hypomedon peyerimhoffi* COIFFAIT 1961: 33 f.; **nov.syn.**
*Hypomedon valentianum* [sic] COIFFAIT 1980: 42; **nov.syn.**
*Hypomedon nitidum* [sic] *murciensis* COIFFAIT 1980: 42; **nov.syn.**
*Hypomedon deharvengi* COIFFAIT 1980: 43; **nov.syn.**

Type material examined:
*L. ovaliceps*: Holotype ♀: "Daya 10 / ovaliceps Fvl. type / R.I.Sc.N.B. 17.479, Coll. et det. A. Fauvel / Type / H. Coiffait vid., 1959 / Holotypus ♀ Lithocharis ovaliceps Fauvel rev. V. Assing 2008 / Sunius ovaliceps (Fauvel), det. V. Assing 2008" (IRSNB).
*L. simoni*: Paralectotypes: 1♂, 2♀♀: "Algeciras Simon / Paratypus [sic] Lithocharis Simoni Quedenfeldt 1881 / Hypomedon politum Qued., H. Coiffait det. 1969 / Paralectotypus Lithocharis simoni Quedenfeldt, desig. V. Assing 2007 / Sunius ovaliceps (Fauvel) det. V. Assing 2007" (HNHM).
*L. nitida*: Paralectotypes: 1 ex.: "Tanger, Quedenfeldt / nitida Qued. / Sunius seminiger (Fairmaire), det. V. Assing 2007" (HNHM); 1♀: "Arsila / nitida Qued., Marocco. Quedenfeldt" (NHMW).
*M. fagniezi*: Lectotype ♂, here designated: "La Bonde (V.se), Fagniez. Nov. / Type / Medon Fagniezi Peyerimhoff, type / Museum Paris, Coll. P. de Peyerimhoff 1950 / La Bonde (V.se), Fagniez Nov. / Sunius fagniezi det. Adorno & Zanetti 2000" (MNHNP). Paralectotypes: 1 ex.: "La Bonde, Vaucluse / Cotype / Hypomedon fagnezi [sic] / Coll. P. Griveau - 2007" (MHNG); 1 ex.: "La Bonde (V.se), Fagniez. Nov. / Cotype / Medon Fagniezi / Hypomedon fagnezi [sic] / Coll. P. Griveau - 2007" (MHNG).
*H. peyerimhoffi*: Holotype ♂: "Pic Sidi Abdelkader, Blida, 16.4.1914 (neige) / Coll. Peyerimhoff / Museum Paris, Coll. P. de Peyerimhoff 1950 / Holotype / Hypomedon Peyerimhoffi Coiff. HC.59" (MNHNP). Paratype ♀: "Forêt du Mouzaïa, Alg. / Coll. et det. A. Fauvel, Medon ovaliceps Fauv., R.I.Sc.N.B. 17.479 / Paratype / Hypomedon Peyerimhoffi Coiff., HC. 59" (IRSNB); 1♂: Pic de Tarnuguida [?], 9.4.05 / Paratype / Hypomedon Peyerimhoffi Coiff., HC. 59" (MNHNP).
*H. valentianus*: Holotype ♀: "Esp. IV.74, Sa. Javalambre, Pr. Valence / Holotype / Hypomedon valentianum H. Coiffait 1979" (MNHNP).
*H. murciensis*: Holotype ♂: "Pr. Murcie, Chirivel / Muséum Paris 1985, Coll. H. Coiffait / Holotype / Hypomedon nitidum murciensis H. Coiffait 1979" (MNHNP).
*H. deharvengi*: Holotype ♂: "La Crau, XII.73 / Muséum Paris 1985, Coll. H. Coiffait / Holotype / Hypomedon deharvengi H. Coiffait 1979 / A. Adorno det. 2001" (MNHNP). Paratypes: 2♀♀: same data as holotype (MHNG).

C o m m e n t s : The original description of *L. ovaliceps* is based on a single female from "Daya" (FAUVEL 1878). An examination of the brachypterous holotype revealed that it is conspecific with the species previously referred to also as *S. fagniezi*, *S. peyerimhoffi*, etc. There is no other species of similar morphology occurring in Algeria.

*Lithocharis simoni* was described from an unspecified number of syntypes from "Algeciras in Andalusia" (QUEDENFELDT 1881). The specific name suggests that the type material was collected by Simon. *Lithocharis simoni* has had a confusing taxonomic history; for details see ADORNO & ZANETTI (2003). In the collections of the HNHM, six syntypes from the type locality and collected by Simon were located. They refer to two species, three of them are conspecific with *S. ovaliceps* and the other three are conspecific with the interpretation of *S. simoni* by COIFFAIT (1970, 1984). The lectotype was chosen from the latter three specimens. For more details see the section on *S. simoni*.

The original description of *Medon fagniezi* is based on several syntypes ("une serie d'exemplaires") from "La Bonde (Vaucluse)" (PEYERIMHOFF 1916). Three syntypes were located in the collections of the MNHNP and the MHNG. The syntype in the Peyerimhoff collection at the MNHNP is here designated as the lectotype.

COIFFAIT (1961) described *Hypomedon peyerimhoffi* from a holotype male ("Algérie, Blida, Pic Sidi Adbelkader [sic]") and numerous paratypes ("assez nombreuses localités d'Algérie et du Maroc"). COIFFAIT (1980) described *Hypomedon valentianus* (based on two females from the "Sierra Javalambre"), *H. nitidus murciensis* (holotype male from "Chirivel, province de Murcie"), and *H. deharvengi* (holotype and 6 paratypes from "La Crau, Bouches-du-Rhône") in one paper. An examination of the types of these names, as well as of the holotype and two paratypes of *H. peyerimhoffi* revealed that they are all conspecific with *S. ovaliceps*; the male genitalia are identical and the external characters are within the range of intraspecific variation of this species. Hence the synonymies proposed above.

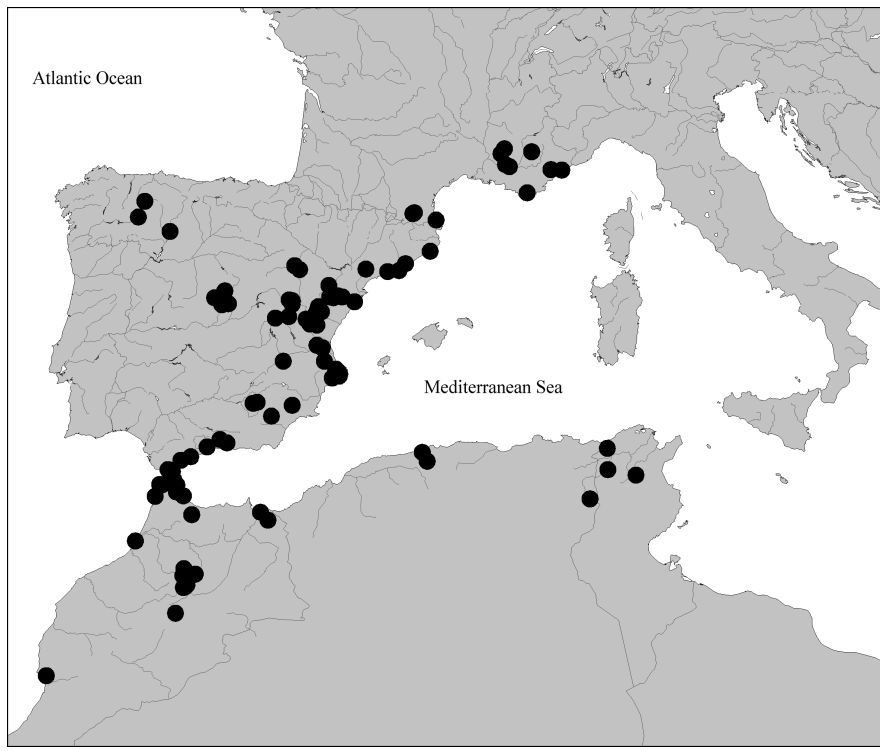
A d d i t i o n a l m a t e r i a l e x a m i n e d : Tunisia [see also ASSING (2005b)]: 1 ex., Le Kef, I.1939, leg. Normand (cTro). Algeria: 1 ex., Tébessa, leg. Sahlberg (DEI). Morocco: 2 exs.: "Marocco / Paratypus [sic] Lithocharis nitida Quedenfeldt 1881 / Hypomedon politum Qued.=nitidum Qued., H. Coiffait det. 1969" (HNHM); 1 ex., Ifrane, 1.XII.1962, leg. Comellini (MHNG); 4 exs., Tanger env., Cabo Spartel, leg. Franz (NHMW, cAss); 3 exs., Tanger, leg. Rolph (DEI); 1 ex., Tanger (MNHUB); 2 exs., Tétouan, leg. Comellini (MHNG); 1 ex., Esmir [at the Mediterranean coast between Ceuta and Cabo Negro], leg. Walker (MHNG); 1 ex., Oued Sebou [34°16'N, 06°41'W], IV.1961, leg. Comellini (MHNG); 1 ex., same data, but V.1960 (MHNG); 1 ex., same data, but V:1961 (MHNG); 1 ex., Jebel Moussa ["Jbel Mousa"; 35°54'N, 05°25'W], leg. Franz (cAss); 18 exs., Azrou env., leg. Franz (NHMW, cAss); 23 exs., Moyen Atlas, Boulemane, leg. Franz (NHMW, cAss); 1 ex., Moyen Atlas, Col du Zad, leg. Franz (NHMW); 1 ex., Moyen Atlas, Aguelmane de Sidi Ali, 2200 m, 4.V.1960, leg. Besuchet (MHNG); 1 ex., 5 km SW Aguelmane, Agzigza, 1400 m, 19.II.1999, leg. Wrase (cSch); 1 ex., Moyen Atlas, S Azrou, 1800 m, 6.V.1960, leg. Besuchet (MHNG); 2 exs., Haut Atlas, east side, Cirque de Jaffar, leg. Franz (NHMW, cAss); 1 ex., N Agadir, Paradise valley, 8.XII.1993, leg. Wunderle (cWun); 1 ex., Beni Snassen mts., 10 km S Berklane, Zegzel, 34°50'N, 2°22'W, 400 m, arable land, 30.XII.2001, leg. Bayer (cSch); 16 exs., M. de Kebdana, 30 km NW Berkane, 35°03'N, 2°36'W, 350 m, N-slope with pistacia, 31.XII.2001, leg. Bayer (cSch, cAss); 6 exs., Ar Rif, Oued Laou env., 35°29'N, 05°07'W, 200 m, 7.-9.VI.2007, leg. Hlaváč (cAss); 1 ex., Ar Rif, Chefchaouen region, Bad Bessen env., 34°59'N, 04°51'W, 1120 m, 3.VI.2007, leg. Hlaváč (cAss). Spain: C a s t i l l a - L e ó n : 1 ex., Sierra de Cabrera, 15 km NW Puebla de Sanabria, 42°12'N, 6°33'W, 1750 m, 6.VIII.2002, leg. Behne (cAss); 1 ex., Caboalles, leg. Paganetti (DEI); 2 exs., Ponferrada, leg. Paganetti (DEI). C a t a l u ñ a : 4 exs., Garraf env., leg. Franz (NHMW); 1 ex., Tarragona, Sierra de Montsant, leg. Franz (NHMW); 1 ex., Sierra de Montsant, 23.III.1959, leg. Besuchet (MHNG); 3 exs., El Vendrell env., leg. Franz (NHMW, cAss); 1 ex., Barcelona, Monte del Tibidabo, 16.XI.1951, leg. leg. González (MHNG); 2 exs., Barcelona, Tossa del Mar, 29.III.1987, leg. Siede (SMNS).

M a d r i d : 2 exs., El Escorial env., leg. Franz (NHMW); 1 ex., El Escorial, 5.V.1977, leg. Outerelo (cBoh); 3 exs., Soto del Real, 23.II.1975, leg. Outerelo (cBoh); 3 exs., La Pedrina, 2.III.1977, leg. Outerelo (cBoh); 16 exs., 10 km W Madrid, Boadilla del Monte, Valdepastores, 21.-23.I.1998, leg. Wrase (cSch, cAss); 1 ex., Madrid, leg. Fauvel (DEI). A r a g ó n : 21 exs., Sierra de Albarracín, NE Noguera, 40°30'N, 01°35'W, 1625 m, oak forest, 11.IV.2003, leg. Assing, Wunderle (cAss, cWun); 30 exs., Sierra de Albarracín, Sierra Alta, 40°29'N, 01°35'W, 1850 m, pine forest, pine and *Vaccinium* litter, 11.IV.2003, leg. Assing, Wunderle (cAss, cWun); 4 exs., Sierra de Albarracín, Sierra Alta, 40°29'N, 01°35'W, 1820 m, pine forest, 11.IV.2003, leg. Assing (cAss); 34 exs., Sierra de Albarracín, near Sierra Alta, 40°30'N, 01°36'W, 1760 m, litter and grass roots under bushes, 12.IV.2003, leg. Assing (cAss, cFel); 36 exs., Sierra de Albarracín, Orihuela del Tremada, 40°32'N, 01°40'W, 1520 m, oak forest, 12.IV.2003, leg. Assing, Wunderle (cAss, cWun); 2 exs., Sierra de Albarracín, leg. Franz (NHMW); 25 exs., 50 km ESE Teruel, 11 km N Rubielos de Mora, 40°14'N, 00°38'W, 1255 m, oak forest, 13.IV.2003, leg. Assing, Wunderle (cAss, cWun); 1 ex., N Mora de Rubielos, 1300 m, 17.II.1999, leg. Tronquet (cTro); 5 exs., S Mora de Rubielos, 1000 m, 22.IV.1984, leg. Schawaller (SMNS); 1 ex., 40 km E Teruel, Puerto de Alcala, 40°21'N, 0°43'W, 1540 m, pine forest, 15.IV.2003, leg. Wunderle (cWun); 2 exs., Teruel, Puerto de Noguera 1400 m, 4.IV.1984, leg. Schawaller (SMNS); 1 ex., Teruel, Puerto de San Rafael, 1600 m, 17.II.1999, leg. Tronquet (cTro); 2 exs., Teruel, NE Manzanera, 700 m, 22.IV.1984, leg. Schawaller (SMNS); 11 exs., Zaragoza, Alcoriza, *Quercus ilex* litter, 18.II.1999, leg. Tronquet (cTro); 6 exs., Sierra de Javalambre, 1 km E Arcos de las Salinas, 40°00'N, 1°01'W, 1200 m, 3.VIII.2002, leg. Behne (DEI); 2 exs., same data, but 22.VII.2002 (DEI); 1 ex., Sierra de Gúdar, 3 km NE Mora de Rubielos, 40°19'N, 0°43'W, 1300 m, 24.VII.2002, leg. Behne (DEI); 1 ex., Sierra de Vicort [41°22'N, 01°30'W], 785 m, V.1967 (cZan); 1 ex., Zaragoza, SE Codos, 800 m, 25.IV.1984, leg. Schawaller (SMNS). C a s t i l l a - L a M a n c h a : 2 exs., Cuenca, leg. Korb (NHMW); 1 ex., Cuenca, N Campillos Sierra, 1100 m, 23.IV.1984, leg. Schawaller (SMNS); 1 ex., Albacete, leg. Comellini (MHNG). V a l e n c i a : 10 exs., Castellón, Sierra de Vallibona, leg. Franz (NHMW, cAss); 9 exs., Castellón, Vinarós env. (NHMW); 3 exs., Castellón, Querol near Morella, 5.V.1966, leg. Besuchet (cAss); 4 exs., Castellón, SW Cinctorres, 1000 m, 20.IV.1984, leg. Schawaller (SMNS); 1 ex., Macastre, Sima del Alto de Don Pedro, 26.II.2003, leg. Sendra et al. (cAss); 1 ex., Sierra d'Aitana, near Guadelest, 18.III.1978 (cAss); 6 exs., Alicante, Col de Rates [38°43'N, 0°04'W], 16.III.1978 (cAss, cWun); 3 exs., Alicante Col de Rates, 22.&27.III.1971, leg. Meybohm (SMNS); 1 ex., Col de Rates, 4.XI.1976 (cAss); 5 exs., Val de Ebo, 23.III.1978 (cAss); 11 exs., Rio Sella, 25.III.1978 (cAss); 1 ex., Alicante, Altea, V.1963, leg. Liebmann (MNHUB); 1 ex., 2 km NE Alpuente, 39°55'N, 1°00'W, 1000 m, *Quercus ilex*, 21.VII.2002, leg. Behne (DEI); 6 exs., Montroy, 22.VI.1971, leg. Comellini (MHNG); 3 exs., N Játiva [38°59'N, 0°31'W], 20.IX.1972, leg. Fülscher (MHNG); 2 exs., Játiva env., leg. Franz (NHMW, cAss); 2 exs., Sierra de Bernia, 16.IX.1972, leg. Fülscher (MHNG); 7 exs., Alicante, Calpe Maryvilla, 20.III.1971, leg. Meybohm (SMNS); 1 ex., N Puebla de San Miguel, 1000 m, 22.IV.1984, leg. Schawaller (SMNS). M u r c i a : 1 ex., Sierra de Espuña, 26.III.1959, leg. Besuchet (MHNG). A n d a l u c í a : 3 exs., SW Sierra de Segura, Sierra de Pozo, 37°56'N, 02°43'W, 1555 m, litter of old *Pinus*, 9.IV.2003, leg. Assing (cAss); 1 ex., Jaén, Sierra de Cazorla, source of Gualaquivir river, 1200 m, macchia with pine trees, 6.X.1993, leg. Wunderle (cWun); 9 exs.,15 km NE Málaga, Montes de Málaga, 36°47'N, 04°21'W, 900 m, N-slope with *Quercus suber*, 24.XII.2003, leg. Assing (cAss); 5 exs., Malaga, Mt. St. Anton, 500 m, sifted, 17.V.1994, leg. Siede (cAss); 1 ex., Málaga, Marbella, 14.IX.1969, leg. Ulbrich (SMNS); 2 exs., ca. 25 km N Almuñécar, Sierra de Almijara, 36°53'N, 03°42'W, ca. 1200 m, mixed oak and pine forest, 25.XII.2003, leg. Assing (cAss); 8 exs., ca. 35 km NE Vélez Malaga, Sierra de Almijara, 36°58'N, 03°56'W, ca. 1000 m, *Q. ilex* forest with *Juniperus*, 25.XII.2003, leg. Assing (cAss); 1 ex., Algeciras, Sierra de Luna, 350 m, 28.III.1994, leg. Assing (cAss); 1 ex., Algeciras, leg. Reitter (DEI). L o c a l i t y n o t s p e c i f i e d : 4 exs., "Hispania", leg. Reitter (HNHM, NHMW); 1 ex., "Spanien" (DEI). France: M i d i - P y r é n é e s : 1 ex., Pyrénées-Orientales, Campôme, 800 m, 5.V.2001, leg. Tronquet (cTro); 4 exs., Molitg-les-Bains, oak litter, 22.&28.II.2002, leg. Tronquet (cTro); 6 exs., same data, but 7.III.2002 (cTro); 2 exs., Molitg-les-Bains, La Boque, 640 m, *Quercus ilex* litter, 22.XI.2004, leg. Tronquet (cTro); 7 exs., Banyuls, Cap Peyrefite, 2.XI.2001, leg. Ponel (cTro). L a n g u e d o c - R o u s s i l l o n : 2 exs., Hérault, Mireval, 5.XII.1976, leg. Curti (cSch, cAss). P r o v e n c e : 1 ex., Digne env., 19.II.1979, leg. Vit (cAss). 1 ex., Vaucluse, Plateau de Vaucluse, N St. Saturnin Javon, 700 m, 28.XII.1995, leg. Assing & Stüben (cAss); 2 exs., Vaucluse, Villes-sur-Auzon, 420 m, *Quercus ilex* litter, 9.XI.1997, leg. Coffin (cTro); 5 exs., Vaucluse, La Bonde near La Motte-d'Aigues, 15.XII.1903, leg. Fagniez (MHNG); 1 ex., La Bonde, IV., leg. Fagniez (MHNG); 1 ex., La Bonde, X.1912 (MHNG); 3 exs.,

Mt. Ventoux, Brantes, leg. Fagniez (cAss); 1 ex., Alpes-Maritimes, St.-Augustin, leg. Ochs (MHNG); 1 ex., Alpes-Maritimes, St. Vallier, X.1975, leg. Toumayeff (MHNG). Locality not identified: 2 exs., Tamis, 4.III.1970 (MHNG).

Diagnosis: Of similar size as *S. bicolor* and *S. propinquus*, but distinguished by the usually uniformly dark yellowish, yellowish brown, or reddish yellow coloration of the forebody; abdominal segments III-VI usually infuscate.

♂: posterior margin of sternite VII weakly concave in the middle; sternite with not very deep posterior excision of broadly triangular shape, otherwise unmodified; for illustrations of the aedeagus see ADORNO & ZANETTI (2003).




**Map 6**: Distribution of *Sunius ovaliceps* (FAUVEL) in the Western Mediterranean, based on examined records.

Comparative notes: From almost all congeners distributed in the Western Mediterranean, *S. ovaliceps* is distinguished by external characters alone, especially the relatively large size in combination with the uniformly pale brownish or yellowish coloration of the forebody. From the externally similar *S. ibizae* and *S. mallorcensis* (Baleares), as well as *S. ignatii* and *S. georgii* (Sicily), it is separated by the different morphology of the aedeagus.

Intraspecific variation: The shape of the oblong dorsal rod-like structure is subject to clinal variation. In material from France and the Iberian peninsula, its apex is usually distinctly hooked, whereas in north Africa it is mostly more or less distinctly bent. However, there is some overlap and specimens with hooked apices were also seen from Algeria (e. g. the holotype of *S. peyerimhoffi*). For detailed illustrations of the

variation of the aedeagus see figures 3-7 and 15-19 (for *S. peyerimhoffi*, *S. murciensis*, *S. fagniezi*, and "*S. politus* sensu COIFFAIT", respectively) in ADORNO & ZANETTI (2003).

*Sunius ovaliceps* is evidently wing-dimorphic, which explains why the species is so widespread. In macropterous specimens, the hind wings are fully developed and the elytra are longer and broader, whereas in brachypterous specimens the hind wings are of distinctly reduced length and the elytra are shorter and more slender.

Distribution and bionomics: Based on the revised material, the species is widespread and rather common in the Western Mediterranean; its known distribution is confined to North Africa (Tunisia, Algeria, Morocco), Spain, and southern France (Map 6).

The material examined was mainly found in forest and shrup biotopes, especially in oak forests (*Q. ilex*, *Q. suber*, etc.), pine forest, mixed forests, in litter of bushes, and in macchia, usually by sifting the leaf litter. On at least one occasion the species was also found in arable land. The altitudes range from near sea-level to 2200 m.

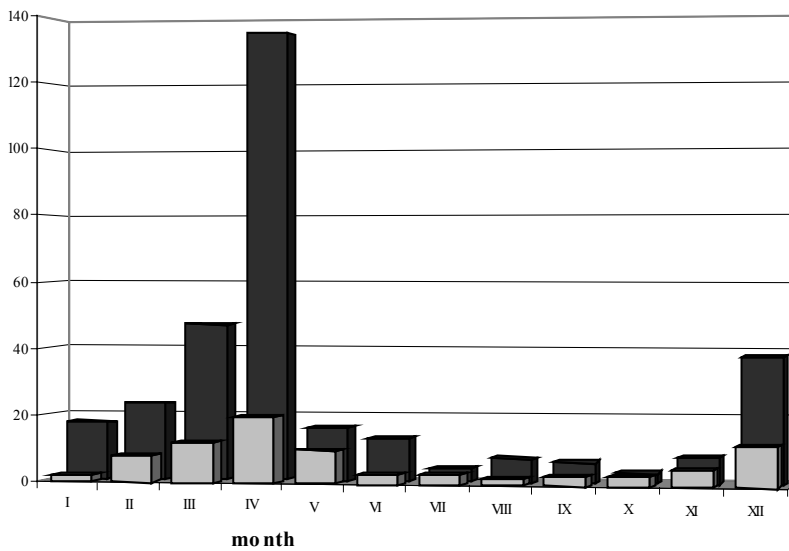



**Fig. 4**: Seasonal distribution of *Sunius ovaliceps* (FAUVEL), based on examined specimens (black bars) and records (grey bars).

Adult beetles were found throughout the year, with a maximum in spring (March through May) and a lower peak in December (Fig. 4).

### 4.5. *Sunius ignatii* ADORNO & ZANETTI 2003

*Sunius ignatii* ADORNO & ZANETTI 2003: 35 ff.

Type material examined: Paratype: 1♂: "Sicilia-26.12.1995, Ficuzza, paese vaglio querceta (PA), I. Sparacio / *Sunius ignatii* Adorno & Zanetti / Paratypus" (cZan).

Additional material examined: Italy: Sicilia: 2 exs., Ficuzza, 1906, leg. Leonhard (DEI, cAss).

D i a g n o s i s : External morphology highly similar to that of *S. ovaliceps*, distinguished only by the absence of a palisade fringe at the posterior margin of the abdominal tergite VII and by the male sexual characters:

♂: sternite VII not distinctly modified; sternite VIII with broad and not very deep posterior incision, otherwise unmodified; aedeagus with short and stout ventral process, internal sac with short and stout flagellum; for illustrations see ADORNO & ZANETTI (2003).

D i s t r i b u t i o n : The known distribution is confined to the surroundings of Ficuzza, Sicily (ADORNO & ZANETTI 2003).

### 4.6. *Sunius georgii* ADORNO & ZANETTI 2003

*Sunius georgii* ADORNO & ZANETTI 2003: 38 ff.

T y p e m a t e r i a l e x a m i n e d : Paratypes: 1♂: "Foresta di Malabotta, Sicilia, 12.5.01 / leg. Adorno & Sabella / Paratypus / Sunius georgii n. sp. det. Zanetti 2000" (cZan); 1♀: "Sicilia, Nebrodi, 12/5/01, B. Malabotta, 1250 m, Montalbano Elicona (ME) / Vista-Vaglio, Sotto massi infossati, leg. Adorno & Sabella / *Sunius georgii* Adorno & Zanetti / Paratypus" (cZan).

D i a g n o s i s : Somewhat smaller than *S. ignatii*, 3.7-3.8 mm. Whole body yellowish brown.

Head approximately as wide as long, puncturation moderately coarse and moderately dense in lateral areas, sparse in median dorsal area; whole surface with distinct microsculpture composed of isodiametric meshes. Eyes conspicuously small, approximately 1/5 the length of postocular region in dorsal view and composed of less than 10 ommatidia.

Pronotum approximately as wide as long and about 0.95 times as wide as head; puncturation similar to that of head, but distinctly denser; interstices with distinct microreticulation.

Elytra approximately as wide and at suture 0.8 times as long as pronotum; puncturation less defined than that of head and pronotum; interstices without microsculpture. Hind wings reduced.

Abdomen approximately 1.1 times as wide as elytra; puncturation fine; microsculpture shallow; posterior margin of tergite VII without palisade fringe.

♂: sternite VII with weakly concave posterior margin, not distinctly modified; sternite VIII with broad and rather shallow posterior incision, otherwise unmodified; aedeagus of similar general morphology as in *S. ignatii*, but ventral process of slightly different shape and internal structures of different morphology; for illustrations see ADORNO & ZANETTI (2003).

C o m p a r a t i v e n o t e s : From other locally endemic species occurring in Italy, *S. georgii* is distinguished especially by the uniformly pale coloration, the pronounced microsculpture of the head and pronotum, the small eyes, and the morphology of the aedeagus.

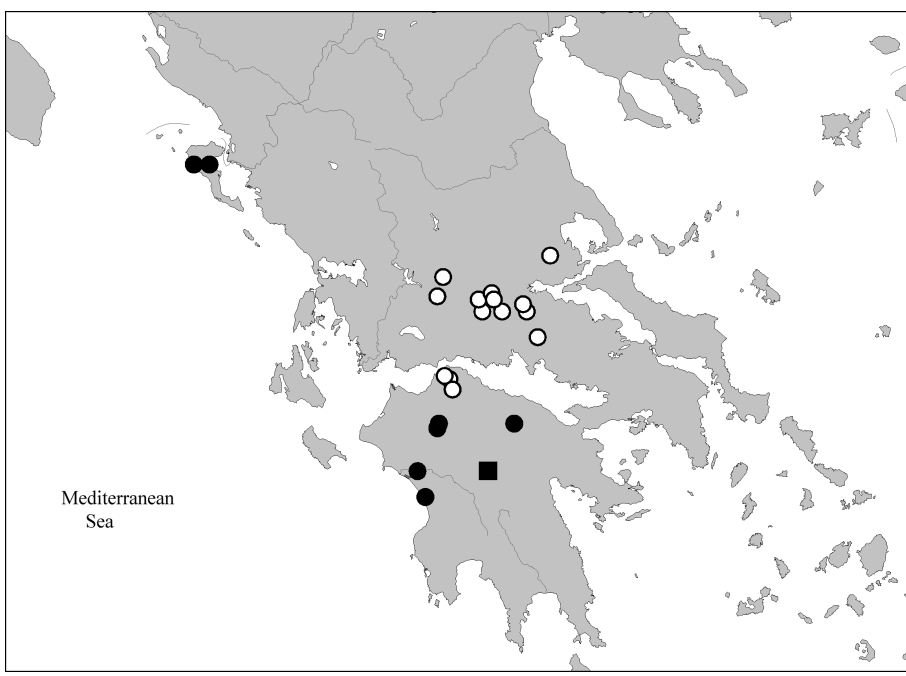
D i s t r i b u t i o n : The species has become known only from the Bosco di Malabotta in the Monti Nebrodi, northern Sicily (ADORNO & ZANETTI 2003).

### 4.7. *Sunius hellenicus* (COIFFAIT 1961) (Map 7)

*Hypomedon hellenicus* COIFFAIT 1961: 32 f.

M a t e r i a l e x a m i n e d : Greece: C o r f u : 2 exs., Paleokastritsa, 0 m, meadow, 14.X.1987 (cAss); 2 exs., laguna, 1905, leg. Leonhard (DEI); 12 exs., locality not specified, leg. Paganetti (DEI, cAss). P e l o p ó n n i s o s : 26 exs., Erimanthos, above Kalendzi, 37°57'N, 21°47'E, 1500 m, 27.III.1997, leg. Assing, Zerche (DEI, cAss); 2 exs., Erimanthos, 37°56'N, 21°47'E, 1540 m, pasture, 30.IV.1999, leg. Zerche (DEI); 58 exs., same data, but 1490 m, 26.IV.1999, leg. Behne & Zerche (DEI, cAss); 1 ex., Olympia, 27.III.1990, leg. Assing (cAss); 8 exs., Meligalas, Derveni, 600 m, 26.III.1992, leg. Frisch (MNHUB, cBoh, cAss); 1 ex., Kalámata, Neodontas river, 400 m, 27.III.1992, leg. Frisch (MNHUB); 1 ex., Killini, S Ano Trikala, 37°57'N, 22°25'E, 1600 m, 27.IV.1999, leg. Behne (DEI); 1 ex., 6 km W Néa Figalía, Zakháro, 700 m, oak forest, 2.X.2004, leg. Schawaller (SMNS).

C o m m e n t s : The original description of *S. hellenicus* is based on a male holotype and an unspecified number of paratypes from "Grèce (sans autre précision)" (COIFFAIT 1961).




**Map 7**: Distributions of the endemic *Sunius* species of Greece, *S. hellenicus* (COIFFAIT) (filled circles), *S. fokisensis* ASSING & WUNDERLE (open circles), and *S. menalonicus* nov.sp. (square), based on examined records.

Based on the male sexual characters and the morphology of the aedeagus (shape of ventral process, internal structures), the species may be most closely related to *S. propinquus*.

D i a g n o s i s : External morphology similar to that of *S. melanocephalus*, but head on average paler, elytra shorter and more slender, and posterior margin of tergite VII without palisade fringe. Distinguished from the closely related *S. propinquus* by smaller body size, the absence of microsculpture on the head, much shorter elytra and reduced

hind wings, and by the absence of a palisade fringe at the posterior margin of tergite VII.

♂: sternite VIII with the usual posterior excision, otherwise unmodified; aedeagus with short ventral process, with short flagellum, and with additional internal structure of distinctive shape; for illustrations see COIFFAIT (1961, 1984).

Distribution and bionomics: Confirmed records are known only from Corfu and the Pelopónnisos, Greece (Map 7). COIFFAIT (1968) reported it from the Timphristos Oros (Evritania) near Karpenision, but this record is likely to be based on a misidentification and to refer to *S. fokisensis* (see section 4.60).

The examined specimens were collected in subalpine grassland, pastures, and oak forests under stones and by sifting litter at altitudes of 0-1600 m in March, April, and October.

### 4.8. *Sunius brevipennis* (WOLLASTON 1864)

Comments: A comparative study of material from Tenerife, Gran Canaria, La Gomera, La Palma, and El Hierro revealed that the species is polymorphic regarding various external characters (coloration, eye size, microsculpture of the head, eye size, length of elytra and hind wings) and even the shape of the ventral process of the aedeagus. Furthermore, the populations from the different islands display – to some extent – distinct character combinations. Regarding the external characters, however, there is considerable variation within, and there is some overlap between populations. These observations suggest that there is no – or only negligible – gene flow between populations and that they are species in statu nascendi, a hypothesis to be confirmed e. g. by molecular data. The fact that the differences in the morphology of the aedeagus are only weakly pronounced is not surprising and is no argument to the contrary, considering that they are slight also between species distinguished by conspicuous external differences (e. g. *S. brevipennis*, *S. microphthalmus*, and *S. tenerifensis*). Among Canarian Staphylinidae, similar examples of assemblages of closely related, allopatric (sub-)species with weakly pronounced character divergence are known, for instance, from *Astenus* DEJEAN 1833 (Paederinae), *Othius* STEPHENS 1829 (Staphylininae), and from the subgenus *Canaroxypoda* ZERCHE 1996 (ASSING 1997; ISRAELSON 1971; ZERCHE 1996).

Based on the morphology of the aedeagus, three entities can be distinguished, two of which have names already: one from Tenerife (*S. brevipennis*), one from Gran Canaria, La Palma, El Hierro, and Lanzarote (*S. canariensis*), and one from La Gomera. They are here regarded as subspecies of *S. brevipennis*.

Based on the external and sexual characters, all the *Sunius* species occurring in the Canary Islands refer to the *S. melanocephalus* species group. The similar morphology especially of the male primary and secondary sexual characters suggests that the Canarian representatives form a monophyletic group and that, consequently, the diversity of Canarian *Sunius* is the result of one successful colonisation event with subsequent speciation.

#### 4.8.1. *Sunius brevipennis brevipennis* (WOLLASTON 1864) (Figs 5-6, 12)

*Lithocharis brevipennis* WOLLASTON 1864: 589.

Comment: WOLLASTON (1864) described *Lithocharis brevipennis* from four syntypes collected "in montibus valde excelsis Teneriffae" "captured on the elevated Cumbre overlooking the Cañadas".

M a t e r i a l e x a m i n e d : Spain: Canary Islands: Tenerife: 98 exs. [3 macropterous, 1 teneral], Anaga, Taborno, 1020 m, *Erica arborea*, 5.IV.1992, leg. Assing, Zerche (DEI, cAss); 14 exs., path to Taborno, 810-850 m, 5.I.1998, leg. Stüben & Bahr (DEI); 145 exs. [8 macropterous], Anaga, Pico del Ingles, 960 m, fayal-brezal, 4.-15.IV.1992, leg. Assing, Zerche (DEI, cAss); 26 exs. [17 macropterous], Pico del Ingles, 900 m, 2.-5.VII.1995, leg. Zerche (DEI, cAss); 1 ex., Pico del Ingles, 950 m, 28.XI.1996, leg. Schülke & Grünberg (cSch); 26 exs. [5 macropterous], Pico del Ingles, 24.-27.III.1972, leg. Meybohm & Fülscher (MHNG, SMNS); 9 exs. [2 macropterous, 1 teneral], La Laguna, 750 m, laurisilva, 4.IV.1992, leg. Assing (cAss); 48 exs. [5 macropterous], Anaga, Las Mercedes, 750 m, 4.IV.1992, leg. Assing, Zerche (DEI, cAss); 2 exs., Las Mercedes, 13.III.1994, leg. Fülscher (cAss); 10 exs., Las Mercedes, 1000 m, 27.IX.1965, leg. Benick (cAss); 9 exs., Las Mercedes, 28°32'N 16°17'W, 500 m, 22.III.2000, leg. Lompe (Ass); 93 exs., Las Mercedes, leg. Franz (NHMW); 2 exs. [1 macropterous], Las Mercedes, 16.III.1982, leg. Meybohm & Fülscher (MHNG); 1 ex., 8 km NE Las Mercedes, Batán de Arriba, 28°32'N, 16°16'W, 720 m, laurel litter, 14.X.1998, leg. Behne (DEI); 2 exs., path to Batán, 850 m, 26.XII.1997, leg. Stüben & Bahr (DEI); 35 exs. [9 macropterous], Anaga, El Bailadero, 900 m, fayal-brezal, 3.-13.IV.1992, leg. Assing, Zerche (DEI, cAss); 3 exs. [macropterous], N Bailadero, 800 m, 2.-10.VII.1995, leg. Zerche (DEI, cAss); 1 ex., S El Bailadero, laurisilva, 2.VII.1995, leg. Zerche (DEI); 2 exs., El Bailadero, leg. Franz (NHMW); 5 exs., El Bailadero, 23.III.1972, leg. Meybohm & Fülscher (MHNG); 1 ex., Monte Los Pasos, leg. Franz (NHMW); 10 exs. [1 teneral], 6 km E El Bailodero, near Chinobre, 900 m, 10.II.1999, leg. Lehmann (cAss); 5 exs. [brachypterous], Chinobre, 850 m, laurisilva, 5.&13.IV.1992, leg. Assing (cAss); 16 exs. [13 macropterous], NE Chinobre, 860 m, 8.VII.1995, leg. Zerche (DEI, cAss); 4 exs., Anaga, Chinobre, 29.III.2001, leg. Burgarth (cFel); 6 exs., E Chinobre, 700-800 m, 24.XI.1996, leg. Schülke & Grünberg (cSch); 5 exs., E Chinobre, B. d. Corral Vieja, 600 m, 5.XII.1996, leg. Schülke & Grünberg (cSch); 2 exs., E Chinobre, 600-800 m, 5.XII.1996, leg. Schülke & Grünberg (cSch); 1 ex., E Chinobre, S-slope, 800 m, 5.XII.1996, leg. Schülke & Grünberg (cSch); 33 exs. [1 macropterous], NE Chinobre, 800 m, laurisilva, 9.I.2002, leg. Schülke (cSch, cAss); 12 exs., 1 km E Chinobre, Adute, E Barranco del Corral, 750 m, laurisilva, 11.I.2002, leg. Schülke (cSch); 35 exs. [brachypterous], Anaga, Chamorga, 700 m, forest margin, dry leaf litter, 5.IV.1992, leg. Assing (cAss); 46 exs., Chamorga, 28°34'N, 16°10'W, 700 m, laurisilva, 22.-25.III.2000, leg. Lompe (cAss); 88 exs. [1 macropterous, 1 teneral], 3 km W Chamorga, 750-800 m, laurisilva, 5.-11.IV.1992, leg. Zerche (DEI); 20 exs. [8 macropterous], El Pijaral, 800-850 m, laurisilva, 4.VII.1995, leg. Zerche (DEI, cAss); 3 exs., Anaga, road Cabeza del Tejo, 850 m, 13.IV.1992, leg. Zerche (DEI); 7 exs. [3 macropterous], Cabeza del Tejo, 730 m, 8.VII.1995, leg. Zerche (DEI); 1 ex., Anaga, W Mirador Cruz del Carmen, 600 m, 28.XI.1996, leg. Schülke & Grünberg (cSch); 7 exs. [6 macropterous], Cruz del Carmen, 900 m, *Erica arborea*, 12.VII.1995, leg. Zerche (DEI, cAss); 80 exs., Anaga, Estanque, 28°34'N, 16°10'W, 22.-31.III.2000, leg. Lompe (cAss); 2 exs., Anaga, Cabezo del Tejo, 28°24'N, 16°10W, 730 m, 25.III.2000, leg. Lompe (cAss); 5 exs., Anaga, 3 km W Ermitá Cruz de Carmen, 800 m, 12.&17.VII.1997, leg. Pütz (cAss); 1 ex., Anaga, Atalaya del Sabinal, 1.5 km Lomo de las Bodegas, 500-550 m, fayal-brezal, 11.I.2002, leg. Schülke (cSch); 7 exs., 1 km S Lomo de las Bodegas, road to Chamorga, 650 m, fayal-brezal, 11.I.2002, leg. Schülke (cSch); 1 ex., Anaga, 3 km N Pedro Alvarez, 650 m, 12.&17.VII.1997, leg. Pütz (cAss); 1 ex., Anaga, Vueltas de Taganana, 500 m, laurisilva, 29.II.2000, leg. Dickoré (cAss); 14 exs. [4 macropterous], Vueltas de Taganana, 600 m, laurisilva, 5.VII.1995, leg. Zerche (DEI, cAss); 21 exs. [7 macropterous], same data, but 780 m (DEI, cAss); 1 ex., same data, but 830 m, *Erica arborea*, 12.VII.1995 (DEI); 1 ex., Anaga, Vueltas de Taganana, 700 m, laurisilva, 29.II.2000, leg. Dickoré (cAss); 1 ex., Anaga, Vueltas de Taganana, 500 m, laurisilva, 7.V.2002, leg. Contreras (cAss); 1 exs., Anaga, Barranco de Ijuana, 700-800 m, 25.V.1999, leg. Geginat (cAss); 6 exs., Barranco de Iguana, leg. Franz (NHMW); 2 exs., Anaga mts., leg. Franz (NHMW); 2 exs., Esperanza, W Las Rosas, 1000 m, 26.XI.1996, leg. Schülke & Grünberg (cSch); 6 exs. [brachypterous], Orotava, Aguamansa, 1000 m, pine forest, 2.IV.1992, leg. Assing (cAss); 9 exs. [brachypterous], Aguamansa, 1150 m, fayal-brezal, 12.IV.1992, leg. Assing, Zerche (DEI, cAss); 6 exs., above Aguamansa, Choza Chimoche, 1400-1500 m, pine forest, 8.I.2002, leg. Schülke (cSch); 3 exs., NE Aguamansa, 1500 m, fayal-brezal, 8.I.2002, leg. Schülke (cSch); 1 ex., Aguamansa, 8.II.1949, leg. Lindberg (cBoh); 1 ex., Orotava, 25.III.1972, leg. Meybohm & Fülscher (MHNG); 7 exs. [2 macropterous], Los Realejos, 500 m, chestnut litter, 11.IV.1992, leg. Assing, Zerche (DEI, cAss); 2 exs., Montana Cabezo de Toro, 1300 m, 26.XI.1996, leg. Schülke & Grünberg (cSch); 3 exs., Los Realejos, 28°21'N, 16°32'W, 1300 m, 27.III.2000, leg. Lompe (cAss); 8 exs.

[brachypterous], Teno, Erjos, 900 m, laurisilva, 8.-10.IV.1992, leg. Assing, Zerche (DEI, cAss); 2 exs., Teno, Erjos, 1000 m, 14.III.1996, leg. Meybohm (cAss); 2 exs., Teno, Erjos, 28°20'N, 16°49'W, 900 m, laurisilva with *Pinus*, 24.III.2000, leg. Lompe (cAss); 8 exs., Teno, Erjos-Las Portelas, 28°20'N, 16°50'W, 800 m, 29.III.2000, leg. Lompe (cAss); 5 exs., Teno, N Erjos, 700 m, 30.XI.1996, leg. Schülke & Grünberg (cSch); 13 exs. [3 macropterous], SE Erjos, Gala Grande, 1300 m, 10.VII.1995, leg. Zerche (DEI, cAss); 3 exs. [1 macropterous], same data, but 1340 m, 1.VII.1995 (DEI, cAss); 21 exs., Erjos env., leg. Franz (NHMW); 2 exs., Erjos, 8.V.1975, leg. Barbier (cTro); 8 exs., Teno, El Tanque, 28°22'N; 16°46'W, 600 m, laurel litter, 18.X.1998, leg. Behne (DEI); 2 exs., El Tanque, 28°22'N; 16°46'W, 500 m, fallow, 12.X.1998, leg. Behne (DEI); 4 exs., Puerto de la Cruz, beach, under debris, 21.IX.1965, leg. Benick (cAss); 3 exs., Guimar, Barranco del Agua, 28.V.1985, leg. García (cAss); 5 exs. [brachypterous], Teide, El Portillo, 2050 m, pine forest, 6.-11.IV.1992, leg. Assing, Zerche (DEI, cAss); 22 exs., Teide, N-slope, 1000-1600 m, leg. Franz (NHMW); 4 exs. [2 macropterous], Las Cañadas, 25.III.1972, leg. Meybohm & Fülscher (MHNG); 2 exs., Esperanza, leg. Franz (NHMW); 2 exs. [1 macropterous], Esperanza, 1200 m, 6.VII.1995, leg. Zerche (DEI); 1 ex.. [macropterous], Esperanza, 23.III.1972, leg. Meybohm & Fülscher (MHNG); 2 exs., Ruigomez, laurisilva, leg. Franz (NHMW); 2 exs., Cumbre, 1600-1800 m, leg. Franz (NHMW).

D i a g n o s i s : Of similar size as *S. melanocephalus*. Coloration: forebody uniformly reddish or head darker than pronotum; abdomen usually with segments III-VI and anterior 3/4-4/5 of segment VII dark brown or blackish. Eyes usually slightly shorter than half the length of postocular region in dorsal view, rarely about half as long as postocular region. Microsculpture of the head very weakly pronounced, usually absent in median dorsal area and visible only in lateral and posterior areas. Wing development polymorphic, with at least three morphs: a macropterous morph (elytra slightly longer than pronotum, hind wings fully developed), a submacropterous morph (with the elytra slightly shorter than or approximately as long as pronotum, hind wings developed, but of reduced length), and a brachypterous morph (elytra 0.85-0.90 times as long as pronotum, hind wings rudimentary, slightly longer than elytra at most). Abdominal tergite VII without palisade fringe.

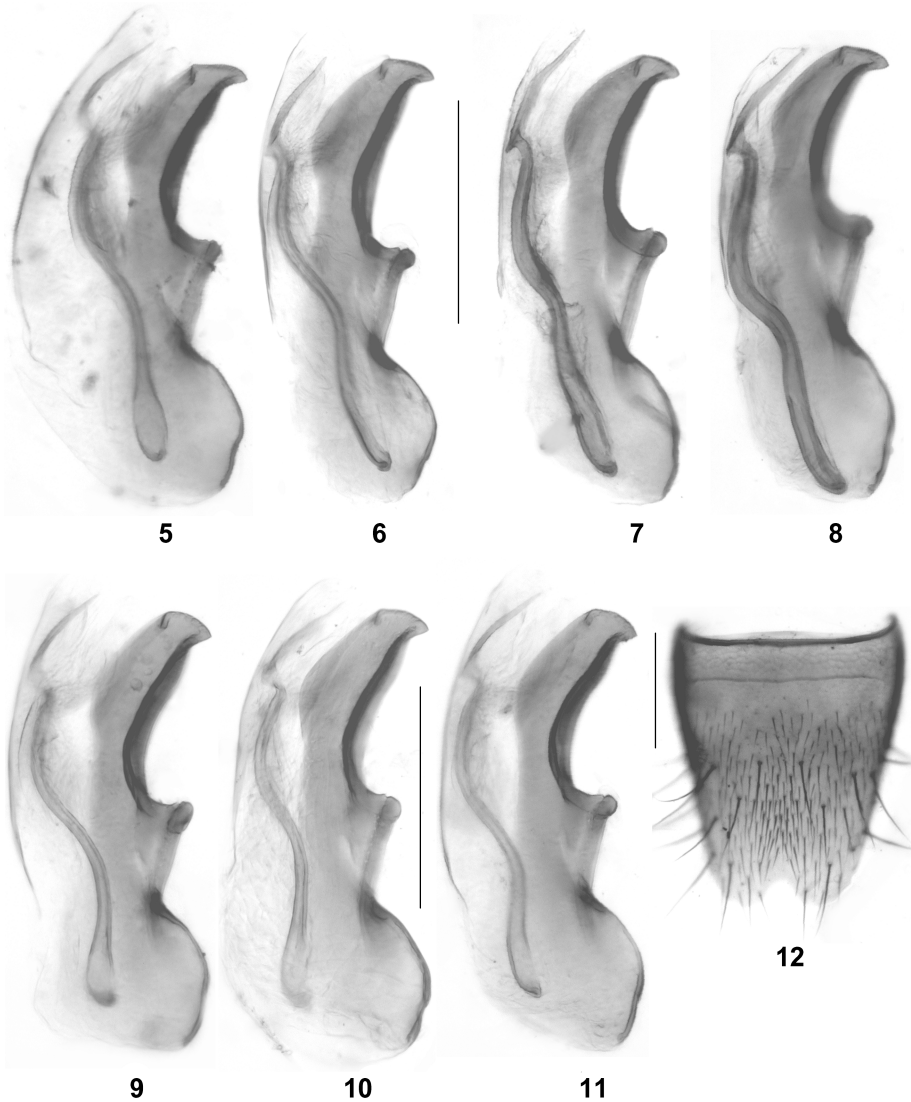
♂: sternite VII unmodified; sternite VIII with somewhat denser pubescence in median area; aedeagus with apex of ventral process stout and somewhat truncate in lateral view (Fig. 12); apical part of flagellum moderately long (Figs 5-6).

D i s t r i b u t i o n a n d b i o n o m i c s : The subspecies is endemic to Tenerife, Canary Islands, where it is common everywhere and in various kinds of habitats and at a wide range of altitudes (0-2050 m). Records from other islands (see MACHADO & OROMÍ 2000) – at least those from Gran Canaria, La Gomera, La Palma, Lanzarote, and El Hierro – refer to the other subspecies. The examined material was collected especially in laurisilva, fayal-brezal, pine forest, stands of *Erica arborea*, but also in chestnust litter and on one occasion also from debris on a beach.

Adult beetles were found practically throughout the year: January (7 records/76 specimens), February (4/13), March (16/197), April (14/501), May (4/7), July (15/146), September (2/14), October (3/11), November (6/17), December (4/11). The figures for the individual months, however, probably reflect collecting activity more than seasonal variation of abundance. Teneral specimens were observed in February and April. Remarkably, the proportion of macropterous specimens was distinctly higher in samples taken in July than in those collected in March and April.

**4.8.2. *Sunius brevipennis canariensis* (BERNHAUER 1928), nov.stat.** (Figs 7-8, 13-18)

*Medon* (*Hypomedon*) *canariensis* BERNHAUER 1928: 278.




**Figs 5-12**: *Sunius brevipennis brevipennis* (WOLLASTON) (**5-6, 12**), *S. b. canariensis* (BERNHAUER) from Gran Canaria (**7-8**), and *S. b. gomerensis* nov.ssp. (**9-11**): (**5-11**) aedeagus in lateral view; (**12**) male sternite VIII. Scale bars: 0.2 mm.

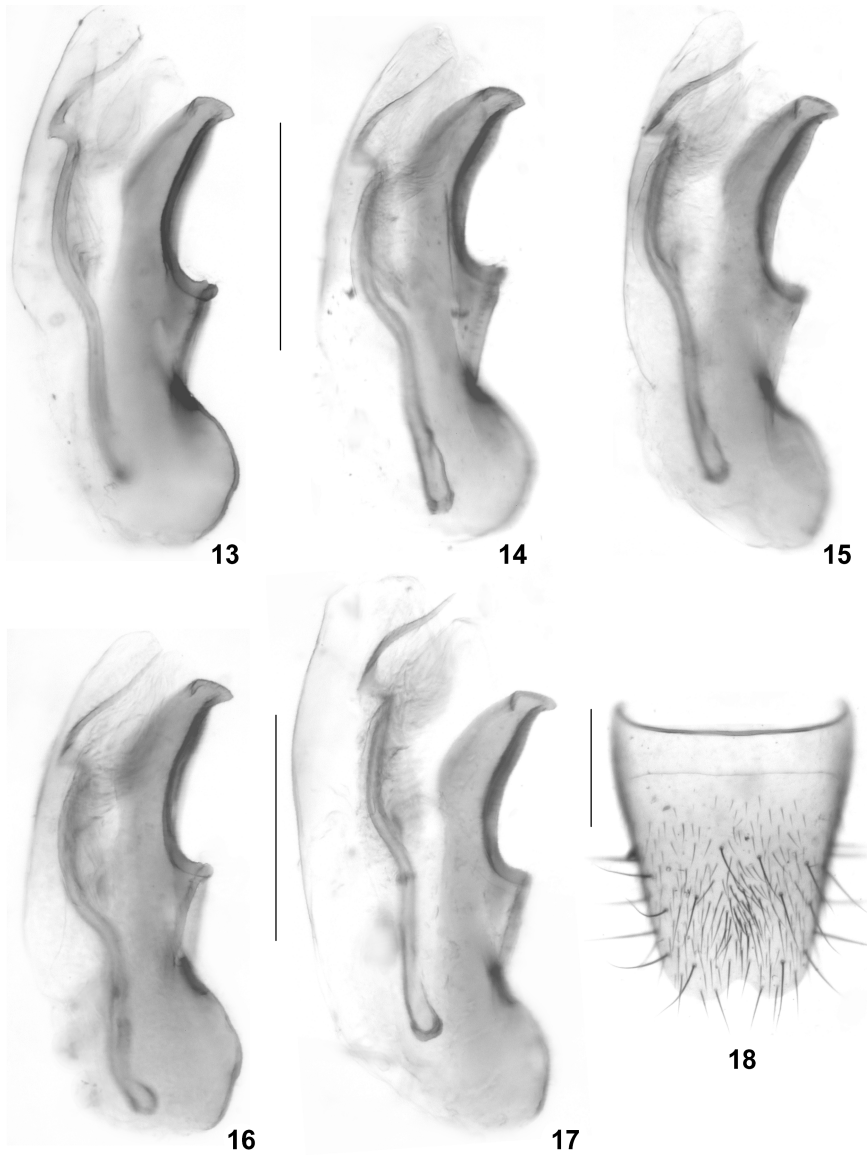
C o m m e n t s : The original description of *S. canariensis* is based on an unspecified number of syntypes from "Gran Canaria, Los Tillos" (BERNHAUER 1928). The type material was not examined, but the specimens seen from Gran Canaria are in agreement with the original description.

Material examined: Canary Islands: Gran Canaria: 5 exs., W Moya, El Palmital, 500 m, 23.XII.1997, leg. Assing, Wunderle (cAss, cWun); 40 exs., Moya, laurisilva, leg. Franz (NHMW, cAss); 9 exs., Valleseco, leg. Franz (NHMW, cAss); 1 ex., Pozo de las Nieves, leg. Franz (NHMW); 1 ex., Agaete env., leg. Franz (NHMW); 1 ex., Cruz de San Antonio, 900 m, 26.XII.1997, leg. Assing (cAss); 1 ex., Cruz de Tejeda, 1600 m, 26.XII.1997, leg. Assing (cAss); 2 exs., N Cruz de Tejeda, road to Pinos de Caldar, 28°01'N, 15°36'W, 1370 m, meadow with *Pinus canariensis*, 4.II.1998, leg. Zerche (DEI); 4 exs., E Tejeda, 1300 m, under stone, 25.XII.1997, leg. Assing, Wunderle (cAss, cWun); 4 exs., Barranco de la Virgen, 500 m, 20.XII.1997, leg. Assing, Wunderle (cAss, cWun); 3 exs., Tenteniguada, 1100 m, 21.XII.1997, leg. Assing (cAss); 3 exs., Pinar de Tamadaba, 1200 m, 22.XII.1997, leg. Assing, Wunderle (cAss, cWun); 3 exs., Barranco de Mogán, El Pié de la Cuesta, 27°54'N, 15°42'W, 355 m, sifted under *Echium* and *Euphorbia*, 3.II.1998, leg. Zerche (DEI, cAss); 1 ex., Barranco de la Miña, 21.XII.1997, leg. Assing (cAss); 1 ex., La Gulata, 6.VI.1989, leg. Balke & Hendrich (cAss); 1 ex., Barranco Cernicale, 450 m, VI1985, leg. Machado (cAss); 2 exs., SW Rincon, Tenteniguada, Bco. Coruna, 1200 m, 21.XII.1997, leg. Wunderle (cWun); 1 ex., Mogan, 1000 m, 12.V.1997, leg. Hieke & Wendt (MNHUB); 1 ex., Chira reservoir, 800 m, 15.V.1997, leg. Hieke & Wendt (cAss). La Palma [see also ASSING & WUNDERLE 1999]: 1 ex., Juan Adalid, 16.I.1994, leg. Oromí (cAss); 6 exs., Cumbre, Roque Muchado, above 2000 m, leg. Franz (NHMW); 1 ex., 1.5 km NW Llano Negro, 900 m, 10.V.1999, leg. Bayer (cSch); 1 ex., N Santa Cruz, under stone, IV.2007 (cAss). El Hierro [see also ASSING 2000]: 17 exs., Las Playas, leg. Franz (NHMW); 3 exs., Sabina, leg. Franz (NHMW); 1 ex., El Pinar, leg. Franz (NHMW); 8 exs., Mirador de la Pena, 650 m, 10.-13.X.1996, leg. Schülke & Grünberg (cSch, cAss); 5 exs., Las Lajas, 10 km S Pto. Timijiraque, 27°44'N; 17°56'W, 110 m, sifted under *Periploca*, 20.I.1998, leg. Behne (DEI, cAss); 1 ex., below Sabinosa, 27°45'N, 18°06'W, 95 m, *Eonium* sifted, 27.I.1998, leg. Behne (DEI); 9 exs., 6 km W Frontera, Lomo Blanco, 27°45'N 18°03'W, 550 m, fayal-brezal, 24.I.1998, leg. Behne (DEI, cAss). Lanzarote: 2♀♀, Tiagua, 2.XII.1988, leg. Machado (cAss); 2♀♀, locality not specified, leg. Franz (NHMW); 1♂, locality not specified, 4.II.1964, leg. Lohse (MHNG).

Diagnosis: Coloration: head of variable coloration, in material from Gran Canaria usually distinctly darker than the pronotum, rarely as pale as pronotum, in material from other islands usually reddish and not darker than pronotum; remainder of body of similar coloration as in the nominal subspecies or uniformly reddish. Eyes approximately half as long as postocular region in dorsal view, or slightly longer. Head shiny, microsculpture absent or confined to shallow traces in lateral and posterior areas. Wing development dimorphic: elytra of brachypterous and submacropterous morph 0.85-1.0 times as long as pronotum (rarely slightly longer than pronotum), those of macropterous morph approximately 1.10-1.15 times as long as pronotum. Posterior margin of abdominal tergite VII with palisade fringe.

♂: sternites VII and VIII as in the nominal subspecies (Fig. 18); aedeagus with comparatively slender ventral process; apical part of flagellum longer than in the nominal subspecies (Figs 7-8, 13-17).

Distribution and bionomics: The subspecies is moderately common in Gran Canaria, Lanzarote, La Palma, and El Hierro, Canary Islands. For additional records from El Hierro and La Palma see ASSING (2000) and ASSING & WUNDERLE (1999), respectively. Previous records from Tenerife (FRANZ 1979; MACHADO & OROMÍ 2000) refer to the macropterous morph of *S. brevipennis brevipennis*, possibly also to *S. fernandezi*, those from La Gomera (FRANZ 1979; MACHADO & OROMÍ 2000) to teneral or pale-coloured specimens of *S. palmi*.




**Figs 13-18**: *Sunius brevipennis canariensis* (BERNHAUER) from La Palma (**13-15**) and El Hierro (**16-18**): (**13-17**) aedeagus in lateral view; (**18**) male sternite VIII. Scale bars: 0.2 mm.

*Sunius b. canariensis* primarily inhabits various forest and shrub habitats, but is also found in other biotopes. The material examined was collected in mature and degraded laurisilva, in fayal-brezal, pine forests, fallows with shrubs, subalpine shrub vegetation, as well as in meadows, pastures, and dry habitats with *Echium*, *Euphorbia*, *Periploca*, and *Eonium*, at altitudes of 10-2200 m (see also ASSING 2000; ASSING & WUNDERLE

1999). They were taken in January (5 records/30 specimens), February (3/6), April (7/16), May (3/3), June (2/2), October (1/8), and especially in December (16/39). These figures, however, probably reflect collecting activity rather than actual seasonal abundance. Teneral adults were observed in December.

### 4.8.3. *Sunius brevipennis gomerensis* nov.ssp. (Figs 9-11)

*Sunius brevipennis*: ASSING (1999).

T y p e m a t e r i a l : Holotype ♂: "E - Islas Canarias, 18, La Gomera, ca. 1250 m, NE La Laguna Grande, Laurisilva, N-slope, 28.XII.1998, V. Assing / Holotypus ♂ *Sunius brevipennis gomerensis* ssp. n., det. V. Assing 2007" (cAss). Paratypes: 23 exs.: same data as holotype (cAss); 7 exs.: "E - Islas Canarias, 1, La Gomera, 1050 m, M.ña Quemada, Mir. El Bailadero, Laurisilva, 24.XII.1998, V. Assing" (cAss); 9 exs.: "E - Islas Canarias, 2, La Gomera, 1000 m, El Cedro, NE Ermitá N. S. de Lourdes, Laurisilva, 24.XII.1998, V. Assing" (cAss); 9 exs.: "E - Islas Canarias, 3, La Gomera, 900-1000 m, El Cedro, NE Ermitá N. S. de Lourdes, Laurisilva, 24.XII.1998, V. Assing" (cAss); 1 ex.: "E: Isl. Can., Gomera, Bosque del Cedro, Weg zur Ermita, 900 m, 17.7.1995, leg. Zerche" (DEI); 4 exs. [1 teneral]: "Can. Isl.: Gomera, B. del Cedro, env. Eremita d. N. S. de Lourdes, 940 m, 2.12.96, Schülke & Grünb." (cSch); 5 exs. [1 teneral]: "Can. Isl.: Gomera, Laguna Grande, 1250 m, Laurisilva, 2.12.1996, leg. M. Schülke" (cSch); 5 exs.: "E: Isl. Can., Gomera, Bco. N La Laguna Grande, Laurisilva, 1050 m, 15.7.1995, leg. Zerche" (DEI); 2 exs.: same data, but 1010 m (DEI); 2 exs.: "Canary Islands: Gomera, Plateau W Arana, L21, 7.-19.II.2003, leg. Arndt" (cSch); 1 ex.: "Canary Islands: La Gomera, FI Fuensante, 1./22.IV.2002, leg. Klemm & Wisser" (cSch); 2 exs.: "Canary Islands: La Gomera, LIII, Los Aceviños, 5./15.IV.2002, leg. Klemm & Wisser" (cSch); 25 exs.: "E - Islas Canarias, 5, La Gomera, 700 m, NE Vallehermoso, Teselinde, N-slope, 25.XII.1998, V. Assing" (cAss); 23 exs.: "E - Islas Canarias, 6, La Gomera, 1000 m, NW Arure, Zarza, Laurisilva mit einz. Erica, 25.XII.1998, V. Assing" (cAss); 5 exs.: "E - Islas Canarias, 8, La Gomera, 1000 m, N Arure, Mirador de Alojera, Fayal-Brezal, 25.XII.1998, V. Assing" (cAss); 2 exs.: "E - Islas Canarias, 13, La Gomera, 1400-1450 m, Garojonay, N-slope, Fayal-Brezal, 26.XII.1998, V. Assing" (cAss); 5 exs.: "E - Islas Canarias, 15, La Gomera, ca. 1050 m, El Cedro, SW Ermitá N. S. de Lourdes, Laurisilva, 27.XII.1998, V. Assing" (cAss); 1 ex.: "Gomera, El Cedro, 25.XII.1978, P. Oromí" (cAss); 1 ex.: "Isl. Can., La Gomera, El Cedro, 900 m, Cedrobach/Streu, 2.XI.1990, Wunderle" (cAss); 1 ex.: "La Gomera, Isl. centr., Nat. Park Garajonay, Laguna Grande, 1000 m, 25.VII.1996, sifted, leg. A. Pütz" (cAss); 8 exs.: "La Gomera, Monte de Arure, leg. Franz" (NHMW); 14 exs., "La Gomera, El Cedro, leg. Franz" (NHMW); 3 exs.: "Isl. Can., La Gomera, El Cedro 900 m, Cedrobach, Streu, 2.XI.1990, Wunderle" (cWun); 1 ex.: "E - Islas Canarias, La Gomera, betw. El Cedro - Aceviños, 1000 m, 7.-19.X.2007, Čatloš" (cFel); 3 exs.: "Gomera / Canar. Ins. Polatzek" (NHMW).

D i a g n o s i s : Coloration: forebody uniformly reddish, head not darker than pronotum; usual coloration of abdomen: segments III-VI dark brown to blackish, tergite VII-X reddish, more rarely all of abdomen reddish or most of tergite VII dark. Head with more pronounced microsculpture than in the other subspecies, mostly present also in median dorsal area. Eyes less than half the length of postocular region in dorsal view. Wing development monomorphic, brachypterous, with elytra approximately 0.8 times as long as the pronotum and hind wing rudiments only slightly longer than the elytra. Posterior margin of abdominal tergite VII with palisade fringe.

♂: sternites VII and VIII as in the nominal subspecies; aedeagus with apex of ventral process stout, oblique, and somewhat convex in lateral view; apical part of flagellum of similar length as in the nominal subspecies (Figs 9-11).

E t y m o l o g y : The name (Latin, adjective) refers to the fact that this subspecies is known only from La Gomera.

D i s t r i b u t i o n a n d b i o n o m i c s : The subspecies is endemic to La Gomera, Canary Islands, where it occurs in various habitats, especially laurisilva and fayal-

brezal, at altitudes of up to 1450 m (material examined; ASSING 1999). The type specimens were collected in February (1 record/2 specimens), April (2/3), July (4/9), November (2/4), and especially in December (12/119). Teneral adults were observed in December.

### 4.9. *Sunius microphthalmus* (FRANZ 1979) (Figs 19-20)

*Hypomedon microphthalmus* FRANZ 1979: 68.

Type material examined: Holotype ♂: "Isla del Hierro, El Golfo, lg. H. Franz / Sp 1364 [overleaf] / Kanarische Inseln leg. H. Franz / Hypomedon microphthalmus m. ♂ det. H. Franz / Holotypus / Sunius microphthalmus det. V. Assing 2007" (NHMW). Paratype ♀: "Isla del Hierro, El Golfo, lg. H. Franz / Sp 1323 [overleaf] / 6 / 40 / Hypomedon microphthalmus m. ♀ det. H. Franz / Paratypus / Sunius microphthalmus det. V. Assing 2007" (NHMW).

Additional material examined: Canary Islands: El Hierro: 1 ex., El Golfo, laurisilva [Sp 1376] (NHMW); 1 ex., same data, but Sp 1378 (NHMW); 1 ex., same data, but Sp 1391 (NHMW); 3 exs., same data, but Sp 1541 (NHMW, cAss); 2 exs., same data, but Sp 1456 (NHMW, cAss); 1 ex., same data, but Sp 1459 (NHMW); 4 exs., same data, but Sp 1520 (NHMW); 1 ex., same data, but Sp 1494 (NHMW); 1 ex., El Brezzal, Sp 1305 (cAss); 1 ex., ESE Frontera, 27°44'N, 18°03'W, 850 m, laurisilva, sifted from deep leaf litter, 31.XII.1999, leg. Assing (cAss); 2 exs., Pista del Derrabado, MSS trap, 29.VIII.2007, leg. Oromí & López (cOro, cAss).

Comment: The original description is based on a holotype male from "El Golfo oberhalb der von Valverde nach Frontera führenden Straße" and a female paratype from "El Golfo" (FRANZ 1979).

Diagnosis: 3.0-3.7 mm. Whole body uniformly pale reddish. Head with shallow microsculpture. Eyes reduced to minute rudiments, approximately as large as antennomere IV in cross-section, without pigmentation. Abdominal tergite VII without palisade fringe.

♂: sternite VII unmodified; sternite VIII similar to that of *S. brevipennis*, with somewhat denser pubescence in median area (Fig. 20); aedeagus as in Fig. 19.

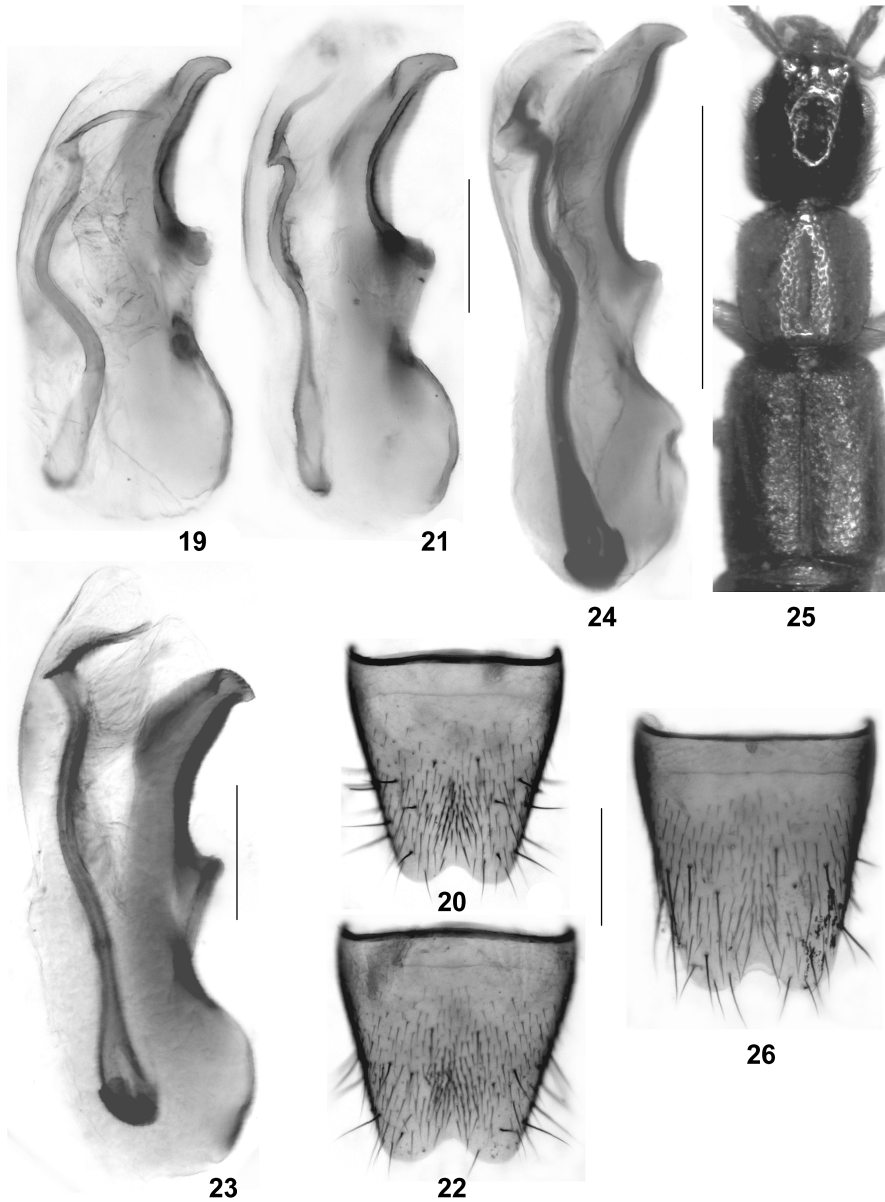
Distribution and bionomics: The species is endemic to El Hierro, Canary Islands. It has been collected by sifting deep soil and the soil under rotting laurel trunks.

### 4.10. *Sunius tenerifensis* (FRANZ 1979) (Figs 21-22)

*Hypomedon tenerifensis* FRANZ 1979: 67.

Type material examined: Holotype ♂: "Tenerife, Teide, N-Hang, 1000-1600 m / Sp 1281 [overleaf] / Kanarische Inseln leg. H. Franz / Medon tenerifensis m. det. H. Franz / Holotypus / Sunius tenerifensis det. V. Assing 2007" (NHMW). Paratypes: 5 exs.: "Tenerife, Teide, N-Hang, 1000-1600 m / Sp 1281 [overleaf] / Hypomedon tenerifensis m. det. H. Franz Paratypus / Sunius tenerifensis det. V. Assing 2007" (NHMW, cAss).

Comment: The original description is based on a holotype male and five paratypes from "Tenerife im degradierten Lorbeerwald an der von Aguamansa zum Portillo führenden Straße in ca. 1000 Seehöhe" (FRANZ 1979). Remarkably, FRANZ (1979) compared the species with (his interpretation of) *S. canariensis*, i. e. probably macropterous specimens of the completely different *S. brevipennis*, rather than with the similar *S. microphthalmus*.




**Figs 19-26**: *Sunius microphthalmus* (FRANZ) (**19-20**), *S. tenerifensis* (FRANZ) (**21-22**), *S. palmi* (FRANZ) (**23**), and *S. fernandezi* (HERNÁNDEZ & GARCÍA) (**24-26**): (**19, 21, 23, 25**) aedeagus in lateral view; (**20, 22, 26**) male sternite VIII; (**24**) forebody. Scale bars: 24: 1.0 mm; 20, 22, 26: 0.2 mm; 19, 21, 23, 25: 0.1 mm.

Diagnosis: 2.7-3.3 mm. Whole body uniformly pale reddish. Head with pronounced microsculpture. Eyes strongly reduced, almost as minute as in *S. microphthalmus*, with or without pigmentation. Abdominal tergite VII without palisade fringe.

♂: sternite VII unmodified; sternite VIII similar to that of *S. microphthalmus* (Fig. 22); aedeagus as in Fig. 21.

Distribution and bionomics: *Sunius tenerifensis* is endemic to Tenerife, Canary Islands. The types were collected by sifting leaf litter and moss at an altitude of approximately 1000 m (FRANZ 1979).

### 4.11. *Sunius palmi* (FRANZ 1979) (Fig. 23)

*Hypomedon palmi* FRANZ 1979: 69.

Type material examined: Holotype ♂: "La Gomera, El Cedro / Sp 1065 [overleaf] / Kanarische Inseln leg. H. Franz / Hypomedon palmi m. det. H. Franz / Holotypus / Sunius palmi (Franz) det. V. Assing 2007" (NHMW). Paratype ♂ [aedeagus missing]: "La Gomera, El Cedro, lg. H. Franz / Sp 1308 [overleaf] / ♀ [sic] / Hypomedon palmi m. ♀ [sic] det. H. Franz / Allotypus / Sunius palmi (Franz) det. V. Assing 2007" (NHMW).

Comment: The original description is based on a holotype male from "El Cedro in der Höhe des Campamento" and a female paratype from "unweit der ersten Fundstelle in der Nähe der Ermita" (FRANZ 1979). The paratype, however, is in fact a male with the aedeagus missing.

Additional material examined: Canary Islands: La Gomera (see also ASSING 1999): 1 ex., La Laguna alta, 1300 m, fayal-brezal, 30.X.1990, leg. Wunderle (cWun); 2 exs., Epina env., 500 m, 26.X.1990, leg. Wunderle (cWun); 1 ex., Epina env., 600 m, dry slope, 5.XI.1990, leg. Wunderle (cWun); 2 exs., El Cercado [Sp 1703], leg. Franz (NHMW); 4 exs. [identified by Franz as *S. brevipennis*], El Cedro, leg. Franz (NHMW); 3 exs., El Cedro, Cedro stream, 900 m, 2.XI.1990, leg. Wunderle (cWun, cAss); 4 exs., El Cedro, Ermitá, 1000 m, 27.-28.X.1990, leg. Wunderle (cWun, cAss); 2 exs., El Cedro, barranco NE Ermitá, 900 m, 19.VII.1995, leg. Zerche (DEI); 1 ex., road Hermigua-Cedro, under stone, 28.X.1990, leg. Wunderle (cWun); 2 exs., Arure env., 900 m, 5.XI.1990, leg. Wunderle (cWun); 1 ex., Argumame, 12.VI.2002, leg. Klemm & Wisser (cSch); 1 ex., El Cedro, 29.VI.2002, leg. Klemm & Wisser (cSch); 2 exs., barrance N La Laguna Grande, 1010-1050 m, 15.-17.VII.1995, leg. Zerche (DEI); 3 exs., barranco above Hermigua, 550 m, 16.VII.1995, leg. Zerche (DEI); 1 ex., Camino Forestal La Meseta, 650 m, 15.VII.1995, leg. Zerche (cAss); 1 ex., Raso de la Bruma, 1000 m, laurisilva, 15.VII.1995, leg. Zerche (DEI); 1 ex., Igualero, 1300 m, 18.-19.IV.2003, leg. Schawaller (SMNS); 1 ex., locality not specified, leg. Polatzek (NHMW).

Diagnosis: 3.5-4.1 mm. Average coloration of body rather dark; head blackish; pronotum usually dark brown, more rarely dark reddish; elytra reddish yellow to dark brown; abdominal segments III-VI usually dark brown to blackish. Head usually without microsculpture, at most with shallow traces in frontal, posterior, and lateral areas. Eyes relatively large and bulging, slightly more than half the length of postocular region in dorsal view. Elytra monomorphic, large and long, 1.10-1.15 times as long as and distinctly broader than pronotum. Hind wings monomorphic, fully developed. Abdominal tergite VII with palisade fringe.

♂: sternite VII unmodified; sternite VIII similar to that of the other Canarian species, with slightly denser pubescence in median area; aedeagus as in Fig. 23, with dark, stout, basally dilated and curved rod in internal sac.

Comparative notes: From other Canarian representatives of the genus, the species is separated by the darker average coloration, the monomorphic long elytra, and

the morphology of the aedeagus, especially the derived shape of the internal rod-like structure, which it shares only with *S. fernandezi* from Tenerife (see below), evidently its sister species. From the sympatric *S. brevipennis gomerensis*, it is additionally separated by the longer and more strongly sclerotised internal rod-like structure of the aedeagus.

D i s t r i b u t i o n a n d b i o n o m i c s : The species is endemic to La Gomera, where it is not uncommon in various habitats at altitudes of up to 1480 m: laurisilva, fayal-brezal, pine forest, *Erica* vegetation, under *Salix*, on stream banks, and on road margins (material examined; ASSING 1999). For additional records see ASSING (1999). The examined specimens were collected in April (3 records/3 specimens), July (5/9), October (4/8), November (3/6), and December (12/27).

### 4.12. *Sunius fernandezi* HERNÁNDEZ & GARCÍA 1982 (Figs 24-26)

*Sunius fernandezi* HERNÁNDEZ & GARCÍA 1992: 152 ff.

M a t e r i a l e x a m i n e d : Canary Islands: Tenerife: 8 exs., Adeje env., Barranco del Infierno, stream bank, litter of *Salix canariensis*, 9.IV.1992, leg. Assing (cAss); 1 ex., same data, but in gravel, leg. Zerche (DEI); 1 ex., Barranco del Infierno, leg. Franz (NHMW); 1 ex., Vilaflor, 26.III.1990, leg. Winkelmann-Klöck (cSch).

C o m m e n t : The original description is based on a male holotype and a female paratype from "El Médano (Tenerife)" (HERNÁNDEZ & GARCÍA 1992).

D i a g n o s i s : External morphology as in *S. palmi*, but coloration paler: pronotum bright reddish; elytra yellowish. Elytra conspicuously long (Fig. 24).

♂: sternite VII unmodified; sternite VIII with slightly denser pubescence in median area (Fig. 26); aedeagus larger than that of other Canarian congeners; ventral process longer than in *S. palmi* (Fig. 25).

D i s t r i b u t i o n a n d b i o n o m i c s : The species is currently known only from three localities in the south of Tenerife, the type locality (El Médano), the Barranco del Infierno near Adeje, and Vilaflor. The specimens from the Barranco del Infierno were sifted from the leaf litter near the bank of a stream.

### 4.13. *Sunius iranicus* ASSING 2002

M a t e r i a l e x a m i n e d : Iran: F a r s p r o v i n c e : 3♀♀, Estahban-Darab road, Ij, 29°03'N, 54°13'E, 1630 m, 24.IV.2006, leg. Frisch & Serri (MNHUB); 2♂♂, Estahban-Darab road, 23 km NW Darab, 28°53'N, 54°24'E, 1340 m, 24.IV.2006, leg. Frisch & Serri (MNHUB, cAss). K e r m a n : 2 exs., Khabr, 28°49'N, 56°20'E, 2060 m, 21.IV.2006, leg. Frisch & Serri (MNHUB, cAss).

C o m m e n t s : The above specimens represent the first records after the original description, which is based on two types from Kohkiloyeh (ASSING 2002). For illustrations of the aedeagus see ASSING (2002).

### 4.14. *Sunius fulgocephalus* (COIFFAIT 1970) (Figs. 27-36, Map 8)

*Hypomedon fulgocephalum* [sic] COIFFAIT 1970: 726.

T y p e m a t e r i a l e x a m i n e d : Holotype ♂: "[locality in Cyrillic] 20.7.54 / Holotype / Hypomedon fulgocephalus Coiff., det. H. Coiffait 1969 / Sunius fulgocephalus (Coiffait) det. V. Assing 2007" (MNHNP). Paratype ♀: "[locality in Cyrillic] 21.7.52 / Paratype / Hypomedon fulgocephalus Coiff., det. H. Coiffait 1969 / Sunius fulgocephalus (Coiffait) det. V. Assing 2007" (MNHNP).

C o m m e n t : The original description is based on a male holotype from "Mikoian [probably not the locality, but the collector], Arménie soviétique" and a female paratype from "Kafau [recte: Karan], Arménie soviétique" (COIFFAIT 1970).

A d d i t i o n a l m a t e r i a l e x a m i n e d : Georgia: 4 exs., Tbilisi env., Mzcheta, 4.-23.VI.1987, leg. Wrase & Schülke (MNHUB, cSch); 2 exs., Tbilisi env., Kumisi, 3.-24.VI.1987, leg. Wrase & Schülke (cSch); 1 ex., Tbilisi env., Tibliskoye ozero, 19.VII.1985, leg. Wrase (cSch); 1 ex., Bolnisi, 28.VI.1986, leg. Schülke & Wrase (cSch). Azerbaijan: 5 exs., Ordubad, leg. Leder & Reitter (HNHM); 2 exs., Lenkoran (HNHM); 1 ex., Talysh mts., road Lenkoran-Lerik, km 14-18, 30.IV.-9.V.2001, leg. Lackner (cAss); 2 ex., Talysh, 1897, leg. Korb (MNHUB, cAss). Iran: M a z a n d a r a n : 11 exs., Marzanabad, Chalus river, 36°23'N, 51°16'E, 760 m, 25.VII.2005, leg. Frisch & Serri (MNHUB, cAss); 2 exs., Kuh-e Damavand (N-slope), Nandel, 35°01'N, 52°13'E, 1660 m, 16.VIII.2005, leg. Frisch & Serri (MNHUB, cAss); 1 ex., Ramsar, Eshkatechal, 36°54'N, 50°35'E, 300 m, 28.VII.2005, leg. Frisch & Serri (MNHUB); 1 ex., Ramsar: road to Jannatrudbar, 36°59'N, 50°39'E, 29.VII.2005, leg. Frisch & Serri (MNHUB); 1 ex., Tonekabon, Dohezar, 36°40'N, 50°50', 400 m, 27.VII.2005, leg. Frisch & Serri (MNHUB). A z a r b a y j a n - e S h a r q i : 1 ex., Komar Oliah, Kiyamaki Dagh, 38°43'N, 46°00'E, 1320 m, 12.VIII.2005, leg. Frisch & Serri (MNHUB); 4 exs., Komar Oliah, Kiyamaki Dagh, 38°44'N, 46°00'E, 1230 m, 11.VIII.2005, leg. Frisch & Serri (MNHUB, cAss); 1 ex., Kharvana, Komar, 38°43'N, 46°00'E, 1320 m, 7.VIII.2005, leg. Serri & Frisch (HMIM); 3 exs., Aras Valley at Qara Dagh, Marzabad, 38°52'N, 46°32'E, 400 m, 10.VIII.2005, leg. Frisch & Serri (MNHUB); 9 exs., Aras Valley at Qara Dagh, Mardanghem, 38°50'N, 46°33'WE, 500 m, 10.VIII.2005, leg. Frisch & Serri (MNHUB, cAss); 2 exs., Kalaybar, 38°51'N, 47°01'E, 1420 m, 9.VIII.2005, leg. Frisch & Serri (MNHUB, cAss). T e h r a n : 1 ex., Chalus road, S Gachsar, 36°06'N, 51°19'E, 2220 m, 24.VII.2005, leg. Serri & Frisch (HMIM, cAss). G i l a n : 4 exs., Rudbar, Barrehsar, 36°47'N, 49°45'E, 1080 m, 30.VII.2005, leg. Frisch & Serri (MNHUB, cAss); 2 exs., Rudbar, Barrehsar, Damash road, Sebostaneh, 36°47'N, 49°48'E, 1400 m, 31.VII.2005, leg. Serri & Frisch (HMIM, cAss); 1 ex., Rudbar, Barrehsar, 5 km to Kelishom, 36°47'N, 49°48'E, 1320 m, 30.VII.2005, leg. Serri & Frisch (HMIM); 9 exs., Fuman-Masuleh road, Gilvande Rud, 37°10'N, 49°04'E, 440 m, 1.VIII.2005, leg. Frisch & Serri (MNHUB, cAss). S e m n a n : 1♀, 17 km N Shahmirzad, 5 km S Chashm, 35°51'N; 53°18'E, 2040 m, 22.V.2004, leg. Frisch & Serri (MNHUB). G o l e s t a n : 3 exs., Tang Rah, Golestan National Park, 37°24'N, 55°47'E, 490 m, 4.VI.2006, leg. Frisch & Serri (MNHUB). N o r t h K h o r a s a n : 1♀, Shirvan-Quchan road, 24 km SSW Faruj, Garmab, 37°03'N, 58°07'E, 1710 m, 1.VI.2006, leg. Frisch & Serri (MNHUB). F a r s : 1 ex., ca. 50 km SW Shiraz, 5 km S Richi, Korebas, 29°27'N, 52°10'E, 1520 m, 9.IV.2006, leg. Frisch & Serri (MNHUB). Locality not specified: 3 exs., "Kaukas.", leg. Leder (HNHM, cAss); 1 ex., "Caucasus", leg. Leder & Reitter (MNHUB).

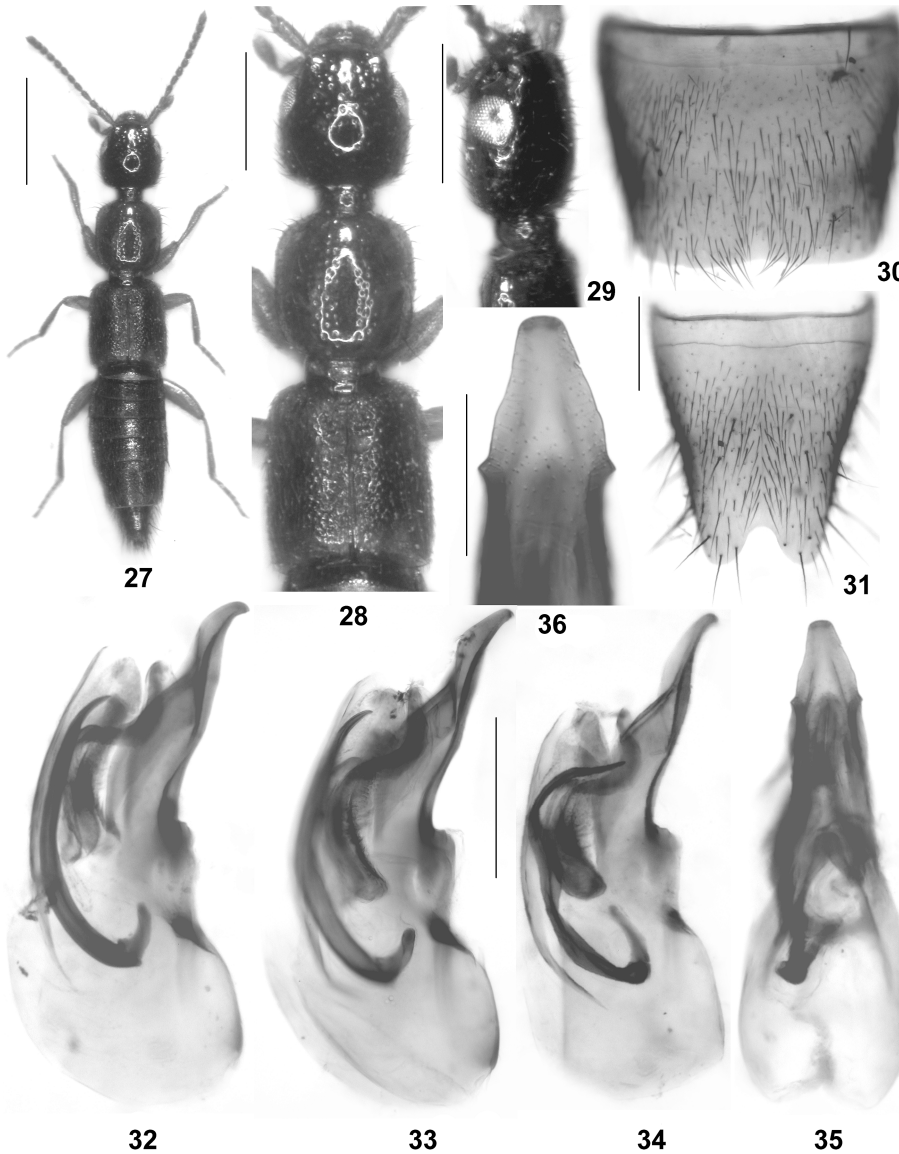
R e d e s c r i p t i o n : Species of intermediate size, 3.5-4.5 mm. Facies as in Fig. 27. Coloration: Head blackish brown to black; pronotum and elytra reddish to reddish brown; elytra in most specimens with extensive, but ill-delimited dark spot in posterior half; abdomen dark brown to blackish brown, with apex (segments VIII-X) and posterior and lateral tergal margins reddish; legs and antennae dark yellowish to reddish.

Head 1.05-1.10 times as wide as long (length measured from anterior margin of clypeus); lateral margins behind eyes weakly converging or subparallel; puncturation coarse and well-defined, not very dense, interstices on average distinctly wider than diameter of punctures (Fig. 28); microsculpture absent; eyes relatively large (Fig. 29), postocular region in dorsal view approximately 1.5 times as long as eyes or nearly so.

Pronotum slightly (approximately 1.05 x) wider than head and approximately 1.05 times as long as wide; puncturation similar to that of head; microsculpture absent (Fig. 28).

Elytra 1.15-1.20 times as wide and at suture approximately 1.00-1.05 times as long as pronotum; puncturation dense, shallow, and somewhat finer and less well-defined than that of head and pronotum (Fig. 28); microsculpture absent or indistinct. Hind wings present.

Abdomen approximately as wide as elytra, widest at segment V (Fig. 27); puncturation fine and dense; tergites VII-VIII usually with distinct transverse microsculpture, anterior tergites without or only with traces of microsculpture; posterior margin of tergite VII with palisade fringe.

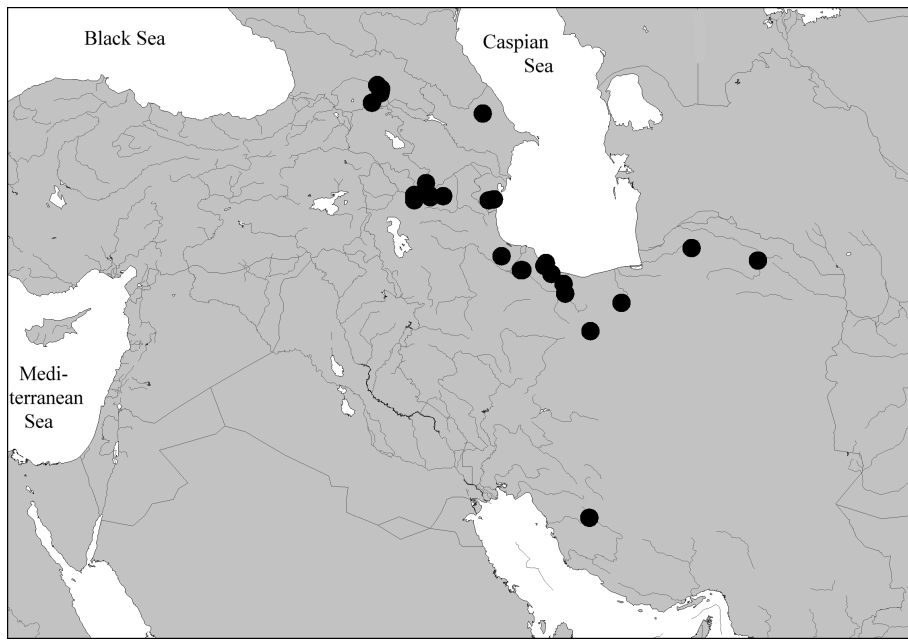



**Figs 27-36**: *Sunius fulgocephalus* (COIFFAIT): (**27**) habitus; (**28**) forebody; (**29**) head; (**30**) male sternite VII; (**31**) male sternite VIII; (**32-35**) aedeagus in lateral and in ventral view; (**36**) apical part of ventral process in ventral view. Scale bars: 27: 1.0 mm; 28-29: 0.5 mm; 30-35: 0.2 mm; 36: 0.1 mm.

♂: sternite VII posteriorly weakly concave, in middle and near posterior margin with slightly modified dark setae (Fig. 30); sternite VIII posteriorly with comparatively deep excision and in middle with darker setae (Fig. 31); aedeagus of distinctive morphology, ventral process apically slender (lateral view), subapically dentate, and apically truncate (ventral view); internal sac with dark and rather massive rod-like structure (Figs 32-36).

Comparative notes: Among other species occurring in Iran and adjacent regions, *S. fulgocephalus* is characterised especially by the distinctive shape of the aedeagus and by the following character combination: body distinctly bicoloured (pronotum and elytra reddish, head and abdomen darker), elytra usually with more or less extensive dark patches in posterior half, pronotum slightly wider than head, elytra at suture slightly longer than pronotum. From the evidently closely related *S. iranicus*, whose aedeagus is of rather similar morphology, it is distinguished especially by larger size, broader body, relatively shorter elytra, the posteriorly more narrowly and deeply incised male sternite VIII, and the more slender and subapically angular ventral process (ventral view).

Distribution and bionomics: The species was previously known from Armenia and Georgia and is here for the first time reported from Azerbaijan and Iran, where it is apparently rather widespread (Map 8). Most (or all) of the Iranian specimens were collected on or near river banks. The altitudes range from 300 to 2220 m. The examined material was found in spring and summer (April-August).




**Map 8**: Distribution of *Sunius fulgocephalus* (COIFFAIT), based on examined records.

### 4.15. *Sunius adanensis* (LOKAY 1919) (Map 9)

*Medon* (*Hypomedon*) *adanensis* LOKAY 1919: 23.
*Hypomedon phasianum* [sic] BORDONI 1980a: 77 f.; **nov.syn.**

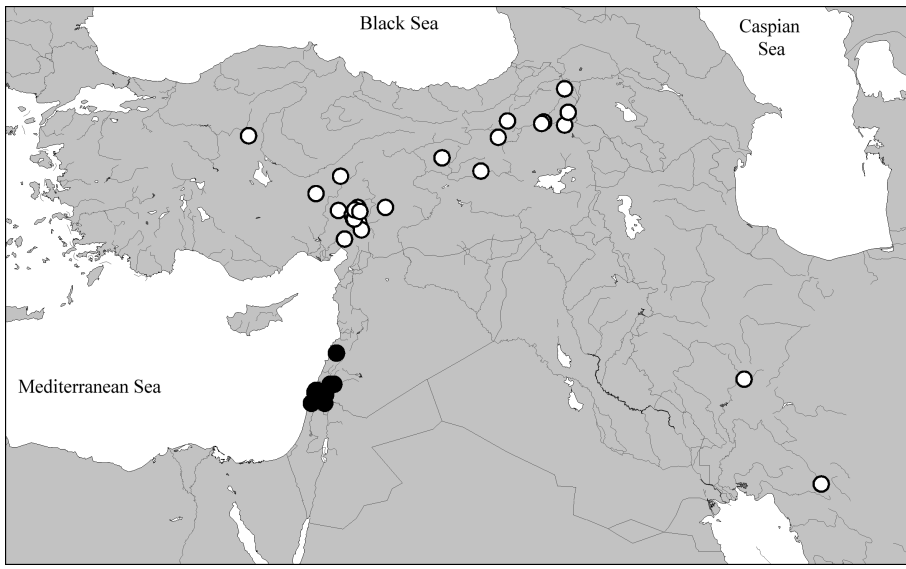
Type material examined: *M. adanensis*: see ASSING (2001a).
*H. phasianus*: Holotype ♂ [brachypterous]: "Turquie, Erzurum, Erzurum-Tortum, 2000 m, 12.V.1967, Cl. Besuchet / Holotypus / Hypomedon phasianum [sic] n. sp., Det. A. Bordoni 1975 / Sunius adanensis (Lokay) det. V. Assing 2007" (MHNG).
Additional material examined: Turkey [see also ASSING 2001a, 2005a, 2005c, 2005d]: Erzurum: 3 exs., SW Erzurum, Gölyurt Geçidi, 2350 m, leg. Franz (NHMW, cAss). Ankara: 3 exs., SE Ankara, N-Elma Dağı, 1300 m, hollow *Salix* trunk, 31.X.1995, leg. Vit (cAss); 3 exs., SE Ankara, N-Elma Dağı, 1200 m, *Crataegus* litter, 31.X.1995, leg. Vit (cAss). Adana: 1 ex. [macropterous], Feke env., 21.-24.VII.2000, leg. Smatana (cSch). Kahramanmaraş: 1 ex., Andırın-Geben, 11 km from Geben, 37°42'N, 36°27'E, 1320 m, 27.IV.2007, leg. Brachat & Meybohm (cAss); 2 exs., Andırın-Geben, 12.5 km from Andırın, 37°39'N, 36°25'E, 1500 m, 27.IV.2007, leg. Brachat & Meybohm (cAss); 1 ex., Andırın-Geben, 12.5 km from Andırın, 37°39'N, 36°26'E, 1500 m, 27.IV.2007, leg. Brachat & Meybohm (cAss); 3 exs., Geben-Göksun, 17 km from Göksun, 37°53'N, 36°27'E, 1550 m, 27.IV.2007, leg. Brachat & Meybohm (cAss); 2 exs., 3 km SW Tekiri, 37°51'N, 36°37'E, 1100 m, 29.IV.2007, leg. Brachat & Meybohm (cAss). Iran [see also ASSING 2006a]: Kohgiluyeh & Boyerahmad: 1 ex., road Yasuj-Sepidan, 20 km S Yasuj, 30°28'N, 51°41'E, 2230 m, 10.VII.2004, leg. Ziegler et al. (cAss). Lorestan: 1♀, SE Dorud, Saravand, Oshtoran Kuh, 33°23'N, 49°10'E, 2000 m, 26.VI.2004, leg. Frisch (MNHUB).

Comments: The original description of *M. adanensis* is based on exclusively female syntypes from Adana, Turkey, and Aleppo, Syria (LOKAY 1919). GUSAROV (1994) designated the syntype from Adana as the lectotype. Several attempts at locating this lectotype were unsuccessful. According to GUSAROV (pers. comm.), it was returned to the Natural History Museum in Prague many years ago, but two curators have been unable to find it (JELÍNEK pers. comm., FIKÁČEK pers. comm.). Nevertheless, the evidence now available leaves little doubt that the types of *S. adanensis* and *S. phasianus* are conspecific. According to the original description of *S. adanensis*, the pronotum and the elytra are reddish, and the elytra are distinctly longer than the pronotum ("thorace valde longioribus"), characters confirmed by an examination of the paralectotype from Aleppo. The macropterous morph of the wing-dimorphic species previously referred to a *S. phasianus* is the only *Sunius* species matching this description and distributed in central southern Anatolia and adjacent regions. All other congeners occurring in this region are either of different coloration or have much shorter elytra. In the meantime, the staphylinid fauna of central southern Anatolia has been studied rather thoroughly, and the chances that a fully winged *Sunius* should have been overlooked are negligible. Consequently, *S. phasianus* is here placed in the synonymy of *S. adanensis*. The interpretation of *S. adanensis* by COIFFAIT (1961, 1984) is incorrect and refers to an undescribed species (see below).

Diagnosis: see ASSING (2001a).

Distribution and bionomics: Confirmed records of *S. adanensis* (mostly as *S. phasianus*) have been reported from Turkey, Syria, and Iran (ASSING 2001a, 2005a, 2005c, 2005d, 2006a; BORDONI 1980a; LOKAY 1919); the known distribution is illustrated in Map 9. SMETANA (2004) also lists the species for Lebanon and Israel, but these records are almost certainly based on the erroneous interpretation of this species by COIFFAIT (1961, 1984).

The species has been collected in various habitats at intermediate to higher altitudes (1000-2350 m). The examined specimens were found in March (3 records/16 specimens), April (11/67), May (7/14), June (8/23), July (3/3), and October (2/6).




**Map 9**: Distributions of *Sunius adanensis* (LOKAY) (open circles) and *S. falsus* nov.sp. (filled circles), based on examined records.

### 4.16. *Sunius khnzoriani* (COIFFAIT 1970) (Map 10)

*Hypomedon khnzoriani* COIFFAIT 1970: 726 f.
*Sunius dolabrifer* ASSING 2001a: 198 f.; **nov.syn.**

Type material examined:
*H. khnzoriani*: Holotype ♂: "[locality in Cyrillic], 2-4-52 / Holotype / Hypomedon khnzoriani Coiff., H. Coiffait det. 1969 / Sunius khnzoriani (Coiffait) det. V. Assing 2007" (MNHNP). Paratypes: 1♀: "[same locality] 11-4-48 / Allotype / Sunius khnzoriani (Coiffait) det. V. Assing 2007" (MNHNP); 1♀: "[locality in Cyrillic] 2000-2200 m, 22.-27.10.67 / [...] Microtus arvalis [collector in Cyrillic] / Paratype / Sunius khnzoriani (Coiffait) det. V. Assing 2007" (MNHNP).
*S. dolabrifer*: see ASSING (2001a).

Comments: The original description is based on a holotype male and a female paratype from "environs d'Erevan, Arménie soviétique" and a male paratype from "Bazar Tchai" (COIFFAIT 1970). An examination of the types revealed that they are conspecific with those of *S. dolabrifer*; hence the synonymy proposed above.

Additional material examined: Turkey [see also ASSING 2001a, 2005c, 2005d, 2006a]: Kars: 1 ex., S Karakurt, 1900 m, 17.VI.1986, leg. Besuchet, Löbl & Burckhardt (MHNG). Armenia: 2 exs., Yerevan env., Bochshaberd, VII.1976, leg. Boháč (cBoh). Iran: 1 ex., Esfahan province, Daran, 32°58'N, 50°24'E, 22.VI.1974, leg. Senglet (cAss); 1 ex., Mazandaran province, Kuh-e Damavand, Nandel, 36°01'N, 52°13'E, 1660 m, 16.VIII.2005, leg. Frisch & Serri (MNHUB); 1 ex., Elburs, Demavend, 2800-3200 m, 22.-25.VIII.1966, leg. Sbordoni (cZan). Georgia: 1 ex., Tbilisi, Lisi, 19.VI.-13.VII.1988, leg. Wrase (cAss).

Diagnosis: see ASSING (2001a).

Distribution and bionomics: The species was previously known only from Armenia and Turkey (ASSING 2001a, 2005c, 2005d, 2006a; SMETANA 2004); it is here reported from Iran and Georgia for the first time (Map 10). The previous records from Sügözu and Sertavul Geçidi (Turkey: Antalya) by ASSING (2005c) refer to the following species.

The material examined was collected at altitudes between 1200 and approximately 3000 m (Iran) in March (1 record/1 specimen), April (4/12), May (2/9), June (4/4), July (1/2), August (2/2), and October (1/1).

### 4.17. *Sunius rastrifer* ASSING 2001, revalidated (Map 10)

*Sunius rastrifer* ASSING 2001a: 200 f.

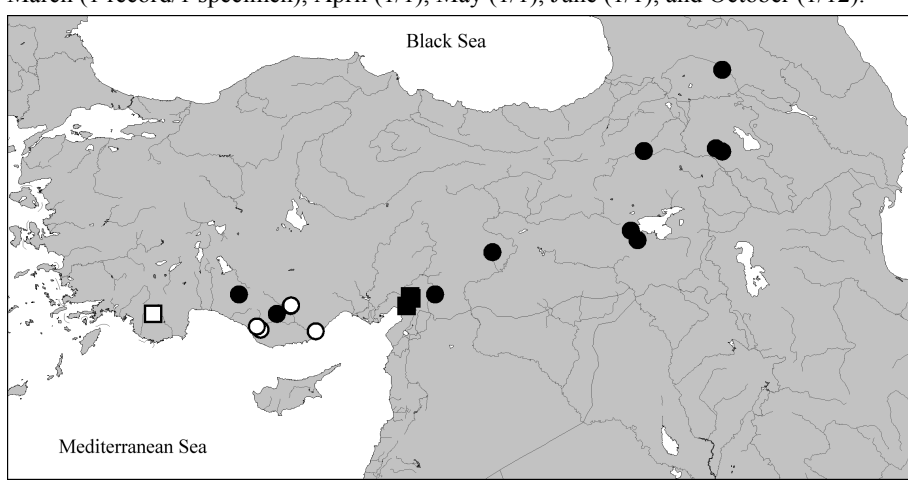
Additional material examined: Turkey [see also ASSING 2001a, 2005c]: Antalya: 12 exs., 40 km E Alanya, 36°29'N, 32°23'E, 1530-1600 m, pine litter and grass sifted, 23.XII.2006, leg. Assing (cAss).

Comments: *Sunius rastrifer* was synonymised with *S. dolabrifer* – which is now a synonym of *S. khnzoriani* – by ASSING (2005c), because the distinguishing characters pointed out in the original description appeared to be linked by transitional conditions. Meanwhile, however, more material has become available, and a comparative study revealed that, in fact, *S. rastrifer* is a distinct species separated from *S. khnzoriani* by constant differences in the morphology of the aedeagus: in the former, the ventral process of the aedeagus lacks lateral processes and the internal rod-like structure of the aedeagus is of pale brown coloration, whereas in the latter, the ventral process of the aedeagus has small, but distinct lateral processes and the internal rod-like structure is more strongly sclerotised and of dark brown to blackish coloration.

Diagnosis: see ASSING (2001a).

Distribution and bionomics: *Sunius rastrifer* is apparently rare and has become known only from eastern Antalya province, Turkey (ASSING 2001a, 2005c). The previous records of *S. dolabrifer* from Sügözu and Sertavul Geçidi (Turkey: Antalya) by ASSING (2005c) refer to this species (Map 10).

The material examined was collected at altitudes of approximately 1500-1600 m in March (1 record/1 specimen), April (1/1), May (1/1), June (1/1), and October (1/12).




**Map 10**: Distributions of *Sunius khnzoriani* (COIFFAIT) (filled circles), *S. rastrifer* ASSING (open circles), *S. nurdaghensis* ASSING (filled squares), and *S. akianus* ASSING (open square), based on examined records.

### 4.18. *Sunius nurdaghensis* ASSING 2001 (Map 10)

Additional material examined: Turkey: Osmaniye: 1 ex., Kaypak-Yarpuz, 37°06'N, 36°26'E, 1370 m, 3.V.2007, leg. Brachat & Meybohm (cAss).

Comment: The species is endemic to the Nur Dağları in central southern Anatolia (Map 10). For a diagnosis and additional records see ASSING (2001a).

### 4.19. *Sunius falsus* nov.sp. (Figs. 27-30, Map 9)

*Hypomedon adanensis*: COIFFAIT (1961, 1984); misidentification.

Type material: Holotype ♂: "Israel, Mt. Carmel, Little Switzerland, 28.V.73, Löbl / Holotypus ♂ *Sunius falsus* sp. n. det. V. Assing 2007" (MHNG). Paratypes: 38 exs. [partly teneral]: same data as holotype (MHNG, cAss); 9 exs.: "Israel, Golan, Banias [33°15'N, 35°42'E], 2.VI.1973, Löbl" (MHNG, cAss); 1 ex.: "Israel: Galilée, Golan, Banias, 24.IV.1982, Besuchet, Löbl" (MHNG); 1 ex.: "Israel, Golan, 2 km E Banias, 29.V.1973, Löbl" (MHNG); 17 exs.: "Israel, Galilee, Tel Dan [33°15'N; 35°39'E], 29.V.1973, Löbl" (MHNG, cAss); 1 ex.: "Israel: Galilée, Tel Dan, 24.IV.1982, Besuchet, Löbl" (MHNG); 1♂: "Israel, Tel Dan, 27.X.1987, G. Coulon leg." (TAU); 1♀: "Israel, Tel Dan, 25.V.1988, G. Coulon leg." (TAU); 39 exs.: "Israel, Galilee, au dessous Safad [32°58'N, 35°30'E], 500 m, 14.VI.73, Löbl" (MHNG, cAss); 25 exs. [partly teneral]: same data, but 30.V.73 (MHNG, cAss); 1 ex.: "Israel: Galilée, sous Safad, 500 m, 26.IV.1982, Besuchet, Löbl" (cAss); 9 exs. [partly teneral teneral]: "Israel: Galilée, Eilon [33°04'N, 35°13'E], N. Betzet, 22.IV.1982, Besuchet, Löbl" (MHNG, cAss); 12 exs. [partly teneral]: "Israel: Galilée, Montfort [33°03N, 35°14'E], 19.IV.1982, Besuchet, Löbl" (MHNG, OÖLL, cAss, cSch); 4 exs.: "Israel, Hagalil, Umg. Nahariyye, Kabri [33°01'N, 35°09'E], VI.1981, leg. Kiener" (MHNG); 2 exs.: "Israel, Hagalil, Montfort, 25.VI.1981, Keziv River, leg. Kiener" (MHNG); 1 ex.: same data, but 10.VII.1981 (MHNG); 1♂, 1♀ [♀ teneral]: "Sarona, Palestine, 3 et 5 8.1935, A. Rabinovitch cep / Medon adanensis Lok. det. C. Koch" (TAU, cAss); 1♂: "Israel: N Kziv [= Nahal Kziv, ca. 10 km NE Nahariyya], 4.vi.1999 4-3, M. Finkel" (TAU); 1♀: "Liban, Tripoli, H. Coiffait, 25.X.51" (MNHG).

Description: Species of moderate size, 3.3-4.2 mm; of similar general appearance as *S. bicolor* and the macropterous morph of *S. adanensis*. Coloration: head and abdomen dark brown to blackish; pronotum and elytra reddish, elytra often instinctly infuscate in the middle; legs yellowish; antennae reddish yellow, with the basal and apical antennomeres paler.

Head approximately as wide as long; puncturation coarse and moderately sparse; interstices without microsculpture. Eyes approximately 0.65-0.80 times as long as postocular region in dorsal view.

Pronotum approximately as wide as long, of subquadrate shape, and slightly wider than head; puncturation similar to that of head.

Elytra of variable length and width, in macropterous morph approximately 1.1 times as long and 1.2 times as wide as pronotum, in brachypterous morph 0.90-0.95 times as long and about 1.1 times as wide as pronotum; puncturation denser, shallower, and less defined than that of head and pronotum.

Abdomen with fine and dense puncturation and with fine microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VII of similar shape and chaetotaxy as in *S. adanensis*, in posterior median area with dark pubescence directed diagonally postero-mediad, posterior margin weakly concave in the middle (Fig. 39); sternite VIII with rather acute posterior excision of distinctly triangular shape, pubescence slightly denser in the middle (Fig. 40); aedeagus with conspicuously stout ventral process and long rod-like structure in internal sac (Figs 37-38).

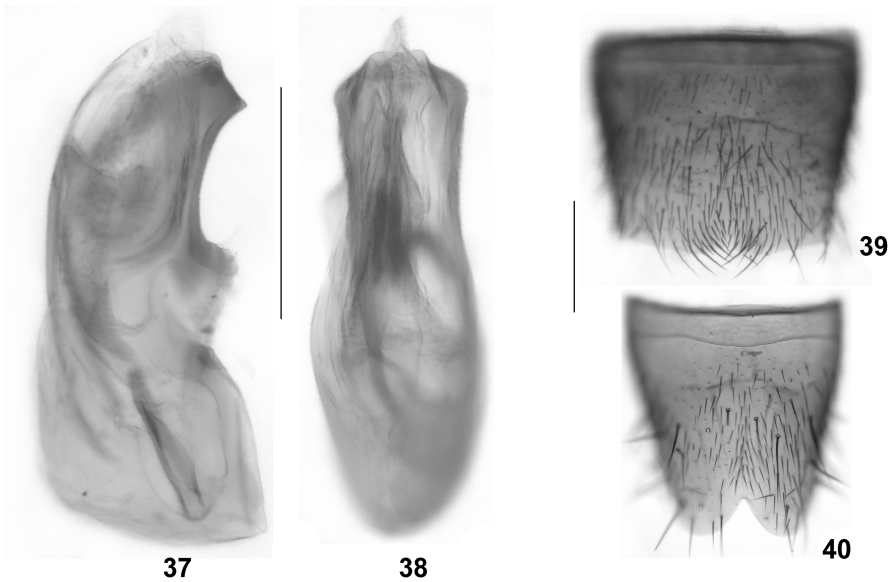
E t y m o l o g y : The name (Latin, adjective: deceptive, erroneous) refers to the fact that this species has previously been misinterpreted due to confusion with *S. adanensis*.

C o m p a r a t i v e n o t e s : Based on the male primary and secondary sexual characters, the species is closely related to *S. adanensis* and allied species (*S. khnzoriani*, *S. rastrifer*, *S. nurdaghensis*, *S. akianus*). It is distinguished from all these species by the morphology of the aedeagus. In addition, in contrast to its relatives, the species is usually macropterous; only two females in a total of approximately 160 type specimens are brachypterous.

C o m m e n t : The species is conspecific with the interpretation of *S. adanensis* of COIFFAIT (1961, 1984).

D i s t r i b u t i o n a n d b i o n o m i c s : Except for one female from Tripoli Lebanon, all the types were found in Israel (Map 9).

The types were collected in April-August and in October. Teneral beetles were observed in April, May, and August.




**Figs 37-40**: *Sunius falsus* nov.sp.: (**37-38**) aedeagus in lateral and in ventral view; (**39**) male sternite VII; (**40**) male sternite VIII. Scale bars: 0.2 mm.

### 4.20. *Sunius bicolor* (OLIVIER 1795) (Fig. 41, Map 11)

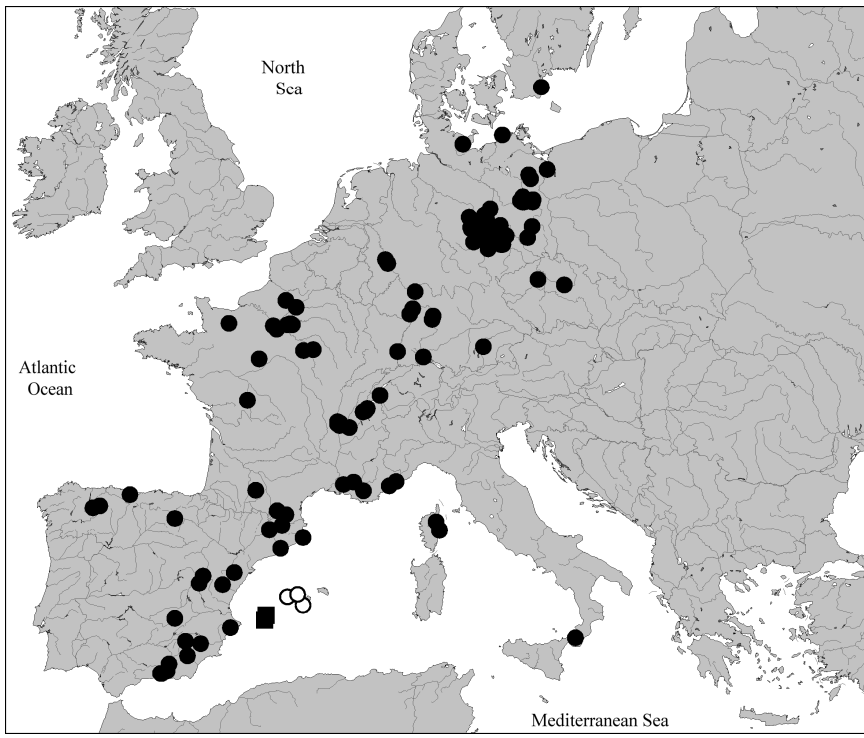
*Paederus bicolor* OLIVIER 1795: 44.
*Lithocharis ruficollis* KRAATZ, 1857: 717; synonymy confirmed.

T y p e m a t e r i a l e x a m i n e d : Syntypes: 1♀: "Umgebung Berlin. / Syntypus / ruficollis mihi Berol. / coll. Kraatz / coll. DEI Müncheberg / Sunius bicolor (Olivier) det. V. Assing 2007" (DEI); 4♀♀: "Umgebung Berlin. / Syntypus / coll. Kraatz / coll. DEI Müncheberg / Sunius bicolor (Olivier) det. V. Assing 2007" (DEI).

M a t e r i a l e x a m i n e d : Spain: G a l i c i a : 1 ex., Sierra de Ancares, Montes des Travesas, 1280 m, 13.I.2005, leg. Valcarcel (cSch). A s t u r i a s : 1 ex., Picos de Europa, Peña Santa, leg. Franz (NHMW, cAss); 1 ex., locality not specified, leg. Kricheldorff (MNHUB). L a

Rioja: 1 ex., Zarratón, 18.XI.1988, leg. Colón (DEI). Castilla-León: 1 ex., Caboalles, leg. Paganetti (DEI). Cataluña: 1 ex., Barcelona, San Quinco, 14.VI.1969, leg. Senglet (cAss); 1 ex., Lérida, Col de Jou, 42°08'N, 1°33'E, 1550 m, under stone, 20.IV.1999, leg. Tronquet (cTro); 1 ex., Palamos (MNHUB); 1 ex., "Les Tunes", VII.1934, leg. Tabertet (MHNG); 1 ex., Gerona, S Ribas de Fresser, 900 m, 21.IX.1989, leg. Trautner (SMNS). Aragón: 4 exs., Sierra de Albarracín, leg. Franz (NHMW, cAss); 1 ex., Teruel, Rubielos de Mora, 28.IX.1971, leg. Comellini (cAss); 2 exs., Aragón (DEI). Castilla-La Mancha: 2 exs., Sierra de Segura, 4 km W Nerpio, 38°08'N, 02°22'W, 1150 m, bank of stream, 30.III.2007, leg. Andújar & Assing (cAss); 1 ex., Ciudad Real, Ruidera, 7.VIII.1969, leg. Comellini (MHNG); 1 ex., Cuenca, NW Valdemeca, 1200 m, 24.IV.1984, leg. Schawaller (SMNS). Valencia: 1 ex.., Sierra d'Aitana, Pto. Tudons, 1150 m, 4.VI.2003, leg. Forcke (cAss); 1 ex., Castellón, W Morella, 800 m, 19.IV.1984, leg. Schawaller (SMNS). Murcia: 5 exs. [partly teneral], Bullas, 4.VII.1971, leg. Comellini (MHNG, cAss). Andalucía: 3 exs., Almeria, Chirivel env., leg. Franz (NHMW); 1 ex. [teneral], Sierra Nevada, 1000 m, VIII.1991, leg. Rauhut (cAss); 1 ex., Granada, Paulenca de Guadix, 18.VII.1971, leg. Senglet (cAss); 1 ex., Granada, Niguelas near Béznar, 3.V.1985, leg. Siede (cWun); 1 ex., Granada, Sierra Nevada, Lanjaron, 600 m, 21.III.1994, leg. Assing (cAss); 1 ex. [teneral], Granada, Lanjarón, 27.V.1895 (MHNG). Locality not specified: 2 exs., "Hisp." (DEI). France: Languedoc-Roussillon: 2 exs., Mosset, 1175 m, under stones, 21.III.2000, leg. Tronquet (cTro); 1 ex., Camurac, 10.V.1970, leg. Tronquet (cTro). Midi-Pyrénées: 1 ex., Gers, Samatan, leg. Clermont (MHNG). Basse-Normandie: 1 ex., Calvados, Forêt de Cinglais (MHNG). Picardie: 1 ex., Compiègne, under bark of beech, 5.IV.1969, leg. Tronquet (cTro); 2 exs., Oise, 30 km S Amiens, Mont-Saint-Firmin ["Mesnil St. Firmin"] (MHNG). Île-de-France: 1 ex., Béhoust, mole burrows, 28.IX.1971, leg. Tronquet (cTro); 1 ex., Noisiel, inundation of Marne river, 27.II.1970, leg. Tronquet (cTro); 1 ex., Noisiel, inundation of Marne river, 6.III.1970, leg. Tronquet (cTro); 1 ex., Yvelines, Les Essarts-le-Roi, at UV-lamp, VII.1989, leg. Fongond (cTro); 6 exs., Gagny (MHNG); 1 ex., Montreuil, 5.IV.1996 (MHNG). Centre: 2 exs., Loir-et-Cher, Meslay, leg. Méquignon (MHNG). Poitou-Charentes: 1 ex., Vienne (HNHM). Bourgogne: 1 ex., Piffonds, beneath apple tree, 15.III.1969, leg. Tronquet (cTro); 3 exs., Arces [48°05'N, 3°36'E], beneath apple tree, 15.III.1969, leg. Tronquet (cTro). Alsace: 2 exs., Biesheim, 16.VII.1986, leg. Winkelmann-Klöck (cSch). Rhône-Alpes: 1 ex., Haute-Savoie, Bellosy near Vulbens, vole nest, VII.1999, leg. Sudre (cTro); 2 exs., Haute-Savoie, Frangy, vole nest, III.1996, leg. Sudre (cTro); 1 ex., Haute-Savoie, Malagny near Viry, 14.XII.1963, leg. Comellini (MHNG); 1 ex., Rhône, Charbonnières-les-Bains, 5.VI.1948, leg. de Gatisse (MHNG); 1 ex., Rhône, Irigny ["Château d'Yvours"] (MHNG); 2 exs., Bouches-du-Rhône, Eyguières, leg. Perrot (MHNG); 5 exs., Rhône, Chaponost (MHNG); 2 exs., Lyon, leg. Perrot (MHNG); 1 ex., Isère, inundation of Bourgoin river, VI.1959 (MHNG). Provence: 11 exs., Var, Bras, swampy bank of Argens river, IV.1971, leg. Tronquet (cTro, cAss); 1 ex., Menton (MNHUB); 2 exs., Vaucluse, La Bonde near La Motte-d'Aigues, VIII., leg. Fagniez (MHNG); 1 ex., La Bonde, 28.II.1909, leg. Fagniez (MHNG); 2 exs., Alpes-Maritimes, inundation of Loup river, leg. Ochs (MHNG). Corse: 1♀, Aleria, 1905 (DEI); 1♀, Castagniccia [ca. 42°24'N, 9°21'E], 1150 m, 7.IV.1990, leg. Wunderle (cWun); 1♂ [teneral], Aleria env., car-net, 4.VII.1991, leg. Zanetti (cZan). Locality not specified: 3 exs., "Gallia" (DEI, HNHM). Switzerland: 1 ex., Genève (MHNG); 1 ex., Peney-le-Jorat (MHNG). Sweden: 1 ex., Stenshuvud (Sk), 19.X.1989, leg. Lundberg (cKöh). Germany: Nordrhein-Westfalen: 1 ex., Bonn, 23.X.1987, leg. Köhler (cKöh); 1 ex., Wesseling, Rheinaue Urfeld, 30.I.1995, leg. Köhler (Köh). Baden-Württemberg: 1 ex., Heilbronn, leg. Hüther (MHNG); 2 exs., Heilbronn, 11.III.1919 (MNHUB); 1 ex., Gemmrigheim, IV.1987, leg. Wolf (SMNS); 1 ex., Engen/Hegau, Hohenhöwen, 10.V.1980, leg. Hahn (SMNS). Rheinland-Pfalz: 8 exs., Landau, Waldrohrbach, arable land, 1993, leg. Köhler & Fritz (cKöh, cRen); 2 exs., same data, but VIII.1992 (cKöh); 1 ex., Haßloch, 22.IV.1973, leg. Korbel (SMNS). Bayern: 1 ex., München, 9.XI.1908 (MNHUB) Schleswig-Holstein: 1 ex., Eutin, Seeschar, 29.VIII.1919 (DEI)). Niedersachsen: 1 ex., Helmstedt env., Jerxheim, salty swamp, 10.VIII.1989, leg. Assing (cAss). Hessen: 3 exs., Geinsheim, bank of Rhine river, flood debris, III.1997, leg. Hetzel (cFel). Mecklenburg-Vorpommern: 1 ex., Ahrenshoop/Darß, 15.V.1983, leg. Hoppe (cSch). Sachsen-Anhalt: 1 ex., Halle, LK Merseburg, Knapendorf, meadow, V.1996, leg. Sprick (cAss); 1 ex., S Halle, Dörstewitz, field margin with *Typha*, 30.V.1996, leg. Sprick (cAss); 2 exs., Halle, S Gimritz, pitfall trap, 4.VIII.1993, leg. Teichmann (cFel); 2 exs., same data, but 1.IX.1993 (cFel, cAss); 1 ex., same data, but 16.XI.1993 (cFel); 1 ex., Schönebeck a. E., 22.X.1935, leg. Borchert (MNHUB); 2 exs., Blankenburg, 1.XII.1939 (MNHUB, cAss); 1 ex., Blankenburg, 15.IV.1940 (MNHUB); 1 ex., Harz, Bodetal, 23.V.1932 (MNHUB); 1 ex.,

Dessau/Elbe, Vockerode, flood plain of Elbe river, car-net, 25.VIII.1999, leg. Renner (cRen); 1 ex., Kreis Staßfurt, Hecklingen, Gänsefurter Busch, 7.II.1988, leg. Gruschwitz (cSch); 1 ex., Parchau, 2.IV.1988, leg. Geiter (cSch); 1 ex., Magdeburg env., NSG "Kreuzhorst", 9.II.1978, leg. Behne (cSch); 1 ex., Naumburg, Totental, under stone, 26.IV.1955, leg. Dieckmann (DEI); 1 ex., Eisleben, salt pit, 13.II.1920, leg. Feige (DEI). T h ü r i n g e n : 1 ex. [teneral], Bad Frankenhausen, Kyffhäuser, 20.IX.1918 (DEI). B r a n d e n b u r g / B e r l i n : 1 ex., N-Lausitz, open pit Schlabendorf-Nord, 26.VII.2001 (cFel); 2 exs., Strausberg env., NSG Annatal - Lange Dammwiesen, 15.VI.1985, leg. Schülke (cSch); 1 ex., same locality, 25.IV.1982, leg. Heinig (cSch); 2 exs., N Herzfelde, 52°30'N, 13°51'E, clay pit, 12.V.2006, leg. Schülke (cSch, cAss); 1 ex., dry slopes WNW Kröchlendorff, sifted under hedges on loamy soil, 23.IV.2005, leg. Wrase (cSch); 1 ex., 1 km N Plessa, clay pit, 7.VIII.2004, leg. Schülke (cSch); 1 ex., N Kaakstedt, 500 m, loamy field, 23.IV.2005, leg. Wrase (cSch); 1 ex., Berlin, Lichtenberg, 24.IV.2000 (cSch); 1 ex., Berlin, Lübers, 14.VIII.1991, leg. Wrase (cSch); 1 ex., Berlin, Pankow, Tegeler Fließ, 52°39'N, 13°24'E, 3.V.2006, leg. Schülke (cSch); 1 ex., same locality, pasture, litter under birch sifted, 14.IX.2006, leg. Schülke (cSch); 5 exs., Berlin, Reinickendorf, Tegeler Fließ, moss and grass sifted, 9.III.2007, leg. Schülke (cSch, cAss); 1 ex., Berlin (DEI). S a c h s e n : 1 ex., Leipzig, LSG Lößnig-Dölitz, pitfall, V.-VII.1995, leg. Sprick (cAss); 1 ex., Leipzig, Große Deponie, V.-VII.1995, leg. Sprick (cAss); 1 ex., Leipzig, Probstheida, elm hedge, 14.II.1961, leg. Dieckmann (cAss); 1 ex. [teneral], Leipzig, Markkleeberg, flood, 13.VII.1954, leg. Dieckmann (DEI); 3 exs., Landkreis Denitzsch, Gruna, bank of Mulde river, flood debris, 12.III.2000, leg. Schülke (cSch). Italy: 1 ex., Calabria, Sta. Eufemia d'Aspromonte, 1905, leg. Paganetti (cAss). Poland: 2 exs., Szczecin ["Stettin"] (DEI). Czech Republic: 1 ex., Praha env., Lotouš near Slaný, 8.V.1978 (cBoh); 1♀, Plouhi vrch pr. Bělušice, 21.V.1983, leg. Wrase (cSch). Locality not specified or illegible: 2 exs. (DEI).




**Map 11**: Distributions of *Sunius bicolor* (OLIVIER) (filled circles), *S. mallorcensis* (COIFFAIT) (open circles), and *S. ibizae* nov.sp. (squares), based on examined records.

D i a g n o s i s : In external characters similar to *S. fallax*, reliably distinguished from other bicoloured species with rather long elytra and with a palisade fringe at the posterior margin of the abdominal tergite VII only by the morphology of the aedeagus. For a colour image of the habitus see TRONQUET (2006).

♂: aedeagus with conspicuously long, straight, and subapically distinctly dentate ventral process; for illustrations see figures in BOHÁČ (1985) and COIFFAIT (1961, 1984).

D i s t r i b u t i o n a n d b i o n o m i c s : Based on the material examined, the distribution is of the Atlanto-Mediterranean type and ranges from the Iberian peninsula to Central Europe (Germany, Poland, Czech Republic) and southern Scandinavia (Map 11). In Germany, the species is apparently more common in the east than in the west. Remarkably, no specimens were seen from Austria, from where the species has been recorded repeatedly (e.g. HORION 1965; SMETANA 2004). All the specimens from Austria that had been identified as *S. bicolor* refer to other species, especially *S. fallax*. In the British Isles, the species has been recorded as very local only from southern England (JOY 1932). In Scandinavia, it is known only from southern Sweden and from Denmark (LUNDBERG 1995). According to SMETANA (2004), the species has been reported also from eastern and southeastern Europe, even from the Caucasus region. However, probably all these records are evidently based on misidentifications, especially confusion with *S. fallax*, but also with other species (*S. nigrinus*, *S. fulgocephalus*, etc.). This particularly applies to previous records from the Caucasus region (Azerbaijan, Russia), the Balkans (Albania, Bosnia-Herzegovina, Croatia, Greece, Macedonia), and Ukraine. Previous records from Austria, Hungary, Romania, and Slovakia should be considered doubtful and require verification. All the specimens seen from these regions that had been

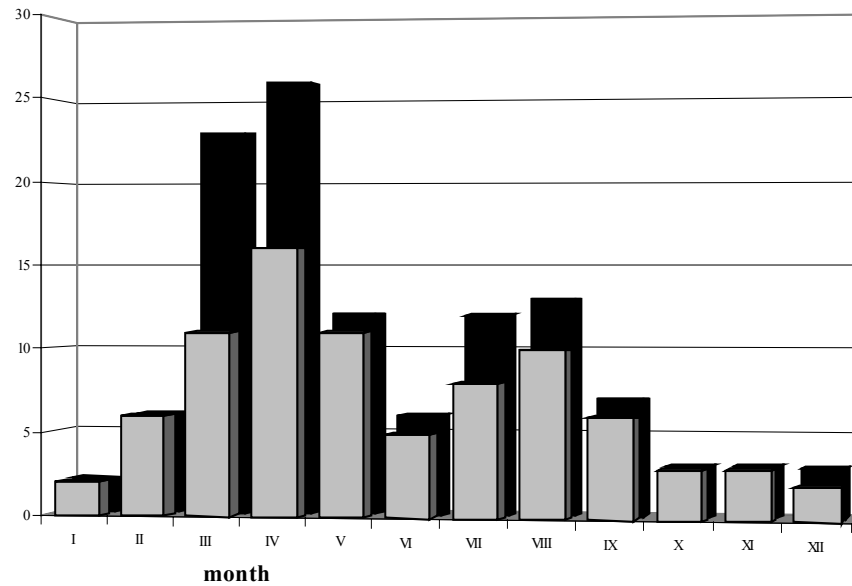



**Fig. 41**: Seasonal distribution of *Sunius bicolor* (OLIVIER), based on examined specimens (black bars) and records (grey bars).

identified as *S. bicolor* refer to other species. TÓTH (1982) reports the species from the Bakony mountains in Hungary and figures the aedeagus; however, since the illustrations are not based on Hungarian material, but copied from COIFFAIT (1961), and no material of *S. bicolor* was found in the HNHM, this record, too, seems most doubtful.

The material examined was collected in a great variety of usually unforested habitats by hand collecting, sifting, and with pitfall traps: on banks of streams and rivers, repeatedly in flood debris (February, March, June), in meadows, pastures, flood plains, in arable land (loamy fields, field margins, orchards, under hedges), in clay pits, salt pits, salty swamps, recultivated coal pits, in urban habitats, in nests of moles (September) and voles (March, July), and on one occasion under bark of beech (April). Most of the records are from lower and intermediate altitudes; the highest elevation indicated on the labels is 1550 m. Flying specimens were caught at a light source (July) and with car-nets (July, August). According to HORION (1965), the species has also been found under beach debris. Remarkably, almost all the records listed above are based on single or very few (2-3) specimens. Only once, as many as 11 specimens were collected in one sample.

The examined specimens were collected throughout the year, with maximal numbers from March through May and from July through September (Fig. 41). Teneral adults were caught in May, July, August, and September, with a maximum in July, these data suggesting pre-imaginal development in spring and summer.

### 4.21. *Sunius italicus* (COIFFAIT 1961) (Map 12)

*Hypomedon italicus* COIFFAIT 1961: 35.

C o m m e n t : The original description is based on a holotype male from "Italie, Latium Castelgandolfo" and an unspecified number of paratypes from "Lazio, Albano", "Environ de Naples", and "Lucania, Monte Vulture" (COIFFAIT 1961). The type material was not examined, but the illustrations of the aedeagus provided with the original description and the material examined from the vicinity of the type locality leave no doubt that the present interpretation is correct.

M a t e r i a l e x a m i n e d : Italy: A o s t a : 1 ex., Valpellina, 45°50'N, 7°19'E, 1230 m, 22.IX.2002, leg. Meybohm (cAss). L i g u r i a : 3 exs., Genova, Bavari, Fontanegli [ca. 44°25'N, 09°03'E], IX.1920, leg. Baliani (cZan). T o s c a n a : 3 exs., Grassina (FI), 350 m, 3.V.1991, leg. Wunderle (cWun); 1 ex., Padule di Fuccechio, leg. Castellini (cTro); 6 exs., Castelnuovo di Garfagnana, leg. Paganetti (DEI, HNHM, cAss). C a m p a n i a : 1 ex., Salerno, Monti Alburni, W San Rufo, Passo di Sentinella, 900 m, 10.X.2000, leg. Wolf (cSch). L a z i o : 1 ex., Barbarano Romano (VT), 20.IV.1981, leg. Seriani (cZan); 1 ex., Lago di Bracciano, Monti Sabatini, Monte Guerrano, 500 m, 7.V.1998, leg. Wolf (cSch). P u g l i a : 1 ex., Prom. del Gargano, 600-800 m, 25.VIII.-6.IX.1986 (cAss). B a s i l i c a t a : 1 ex., Potenza, Bosco Favino, 1500 m, 16.VIII.1997, leg. Magrini (cAss); 1 ex., Potenza, Lago di Pantano, Pignola, 29.XI.1992, leg. Angelini (cAss); 4 exs., Policoro (MT), 12.XII.1976, leg. Montemurro (cZan, cAss). C a l a b r i a : 3 exs., Aspromonte, Gerace, 700 m, 9.XI.1991, leg. Montemurro (cZan). L o c a l i t y n o t s p e c i f i e d : 1 ex., "Italia" (HNHM).

D i a g n o s i s : External morphology as in *S. bicolor* and similar species; reliably distinguished only by the male primary sexual characters.

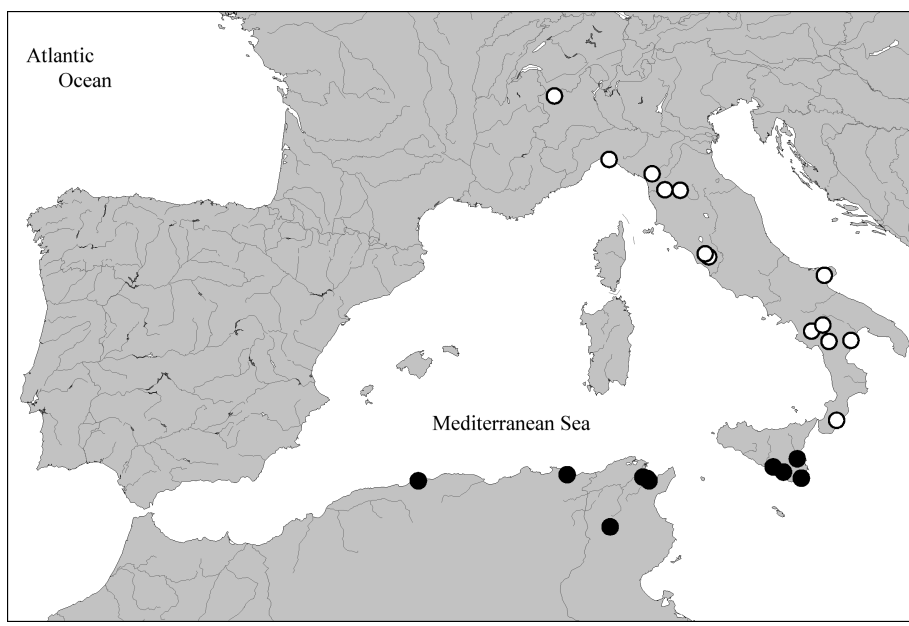
♂: aedeagus with ventral process shorter and of somewhat different shape than in *S. bicolor*; internal structures of distinctive shape. For illustrations see ADORNO & ZANETTI (2003).

Distribution and bionomics: The species has become known only from Italy (Map 12), where it is widespread from Aosta and Liguria in the north to Basilicata and Calabria in the south (material examined; see also ADORNO & ZANETTI 2003). The examined specimens were collected at lower to intermediate altitudes (up to 1500 m) in spring (April-May) and during the period from late summer to early winter (August-December).

### 4.22. *Sunius martinarum* ADORNO & ZANETTI 2003

*Sunius martinarum* ADORNO & ZANETTI 2003: 40 ff.

Type material examined: Paratypes: 1♂: "Peloritani, T. di Gualtieri a valle Cascale Cataolo, Gualtieri Sicaminò (ME), m 210, 29-05-96, Adorno A. Leg. / Torrento Allagamento ♂ Adorno A. Det. / Sunius martinarum Adorno & Zanetti / Paratypus" (cAss); 1 ex.: "For. Malabotta (Floresta-ME), leg. Brandmayr / M3 25.5.81, arbusteto a calicotome" (cZan); 1 ex.: same data, but "27.4.82" (cZan); 1 ex.: "M300 14.7.93, WAO488, leg. Zanetti / Noto SR, cava pr. Contr Lanzavacche" (cZan); 4 exs.: "Peloritani: Aff. F.so Girasia, C/o P.zo Monaco, Antillo (ME), m 400, 01-08-95, Adorno, A. leg., Bosco ripale fitto, Vaglio: detriti lungo la riva" (cZan); 4 exs.: "Peloritani, F.ra di Floresta, Santa Venera del Bosco, Frascianida (ME), m 450, 23-06-95, Adorno, A. leg., Bosco ripale fitto, Vista: Riva torrente" (cZan); 2 exs.: "Peloritani: Aff. F.so Girasia, C/o Portellarossa, Limina (ME), m 590, 01-08-95, Adorno, A. leg., Torrente e Sorgente, Vaglio: detriti" (cZan); 1 ex.: "Sicilia, Aetna, Casello, 3.2.94" (cZan); 1 ex.: "Passopomo, 7.9.93, S Veterina (CT), vaglio comtemto" (cZan); 1 ex.: "Passopomo (CT), 19.07.95, St_Int., Adorno leg." (cZan); 1 ex.: "Passopomo (CT), 19.07.95, St_Est, Adorno leg." (cZan); 1 ex.: "P. P. Esterno 5, 16/05/93, leg. Adorno, A." (cZan); 1 ex.: "Vallone Mitta, Antillo (ME), 13/07/95, tr 6, Adorno leg." (cZan); 1 ex. [teneral]: same data, but "03/06/95, tr 5" (cZan).




**Map 12**: Distributions of *Sunius algiricus* (COIFFAIT) (filled circles) and *S. italicus* (COIFFAIT) (open circles), based on examined records.

Additional material examined: Italy: Sicilia: 1 ex., Madonia, between St. Pollina and Botindari, car-net, 10.VII.2000, leg. Zanetti (cZan); 1 ♀, Taormina env., 25.III.2006, leg. Hlaváč (cAss); 1 ♀, Limina env., 28.III.2005, leg. Hlaváč (cAss).

Diagnosis: From the externally similar *S. italicus*, which is unknown from Sicily, this species is reliably distinguished only by the morphology of the aedeagus; for detailed illustrations of the male primary and secondary sexual characters of *S. martinarum* see ADORNO & ZANETTI (2003). From *S. algiricus*, which too has been recorded from Sicily, it is separated by the more slender body, the absence of microsculpture on the head, and by the male sexual characters.

Distribution and bionomics: The species is endemic to Sicily, where it is evidently widespread (ADORNO & ZANETTI 2003). The material examined was collected at lower and intermediate altitudes in February and during the period from April through August. For more details see ADORNO & ZANETTI (2003). A flying specimen was caught with a car-net in July.

### 4.23. *Sunius algiricus* (COIFFAIT 1970) (Fig. 42, Map 12)

*Hypomedon algiricum* [sic] COIFFAIT 1970: 721.

Type material examined: Holotype ♂: "Bône / Holotype / Hypomedon algiricum Coiff., H. Coiffait det. 1969 / Muséum Paris 1985, Coll. H. Coiffait / A. Adorno det. 2001 / Museum Paris / Sunius algiricus (Coiffait) det. V. Assing 2007" (MNHNP). Paratypes: 1 ♂: "Algérie, Bône / Paratype / Museum Paris / Sunius algiricus (Coiffait) det. V. Assing 2007" (MNHNP); 3 exs.: "Bône / ♂" (MNHNP).

Comment: The original description is based on a holotype male and 16 paratypes from "Algérie, Bône" (COIFFAIT 1970).

Additional material examined: Tunisia: 1 ex., Sbeitla-Dahmani road, Sbiba, 620 m, 30.IV.1996, leg. Frisch (MNHUB); 5 exs., St. Germain, XII.1935, leg. Grosclaude (cTro, cAss); 2 exs., Rades, 2.XI.1936, leg. Grosclaude (cTro); 3 exs., "Tunis" (DEI, cAss). Algeria: 3 exs., locality not specified (HNHM, cAss); 2 exs., "Algier" (DEI). Italy: 1 ex., Sicilia, Lentini, IV.1919, leg. Burlini (MHNG); 5 exs., Gela (CL), bank, 14.VI.1993, leg. Angelini (cZan); 1 ex., Vittoria (RG), Valle fiume Ipparo, car-net, 15.VII.2000, leg. Zanetti (cZan); 1 ex., Vendicari (SR), 5.VIII.1990, leg. Sabella (cZan).

Diagnosis: External morphology as in *S. bicolor*, but head usually with shallow microsculpture, pronotum with finer puncturation, and elytra broader.

♂: sternite VII without evident modifications; sternite VIII with moderately deep and relatively broad posterior excision; aedeagus as in Fig. 42.

Distribution and bionomics: The species has been recorded from southern Italy (Calabria, Sicily) and Algeria (material examined; ADORNO & ZANETTI 2003; COIFFAIT 1970, 1984; SMETANA 2004); it is here reported from Tunisia for the first time (Map 12). The material examined was collected in April, June-July, and November-December. A flying specimen was caught in July.

### 4.24. *Sunius mallorcensis* (COIFFAIT 1970) (Figs 43-44, Map 11)

*Hypomedon mallorcensis* COIFFAIT 1970: 725.

Type material examined: Holotype ♂: "Mallorca, Sierra bei Soller, lg. H. Franz

/ Sp 731 [overleaf] / Holotype / Hypomedon mallorcensis Coiff., det. H. Coiffait 1966 / Sunius mallorcensis (Coiffait) det. V. Assing 2007" (MNHNP). "Paratypes": 2♀♀ [1 labelled as allotype and 1 as paratype]: "Mallorca, Sierra bei Soller, lg. H. Franz / Sp 731 [overleaf] / Hypomedon mallorcensis Coiff., det. H. Coiffait 1966" (MNHNP, NHMW).

Comment: The original description is based on a holotype male and one female paratype from "environs de Soller, Majorque, Baléares" (COIFFAIT 1970). It is not clear if the female "Allotype" in the Franz collection at the NHMW or the female "Paratype" in the Coiffait collection at the MHNP is the paratype specified in the original description.

Additional material examined: Spain: Mallorca: 1♀, Felanitx env., leg. Franz (MHNG); 1♀, Puig de Macanella, 1320 m, under stone, 15.II.1998, leg. Tronquet (cTro).

Redescription: 3.8-4.2 mm. Coloration: pronotum and elytra reddish yellow; head of similar coloration as pronotum or slightly darker; abdomen dark brown to blackish, with the apex somewhat paler; legs and antennae dark yellowish.

Head approximately as wide as long; dorsal surface with rather coarse and moderately sparse puncturation; microsculpture absent, barely noticable traces may be visible on frons. Eyes weakly prominent and of moderate size, slightly more than half the length of postocular region in dorsal view.

Pronotum approximately 1.05 times as long as wide and about as wide as head; puncturation similar to that of head or slightly sparser.

Elytra as wide as or slightly wider than pronotum, at suture 0.75-0.85 times as long as pronotum; puncturation finer, denser, and less defined than that of head and pronotum; microsculpture absent. Hind wings reduced.

Abdomen with very fine and dense puncturation; microsculpure shallow, more distinct on tergite VII than on anterior tergites; posterior margin of tergite VII with or without narrow rudiment of a palisade fringe.

♂: sternite VII with weakly concave posterior margin; sternite VII with deep posterior incision, pubescence unmodified. Aedeagus of similar morphology as in *S. algiricus*; internal sac with two long and weakly sclerotised rod-like structures (Figs 43-44).

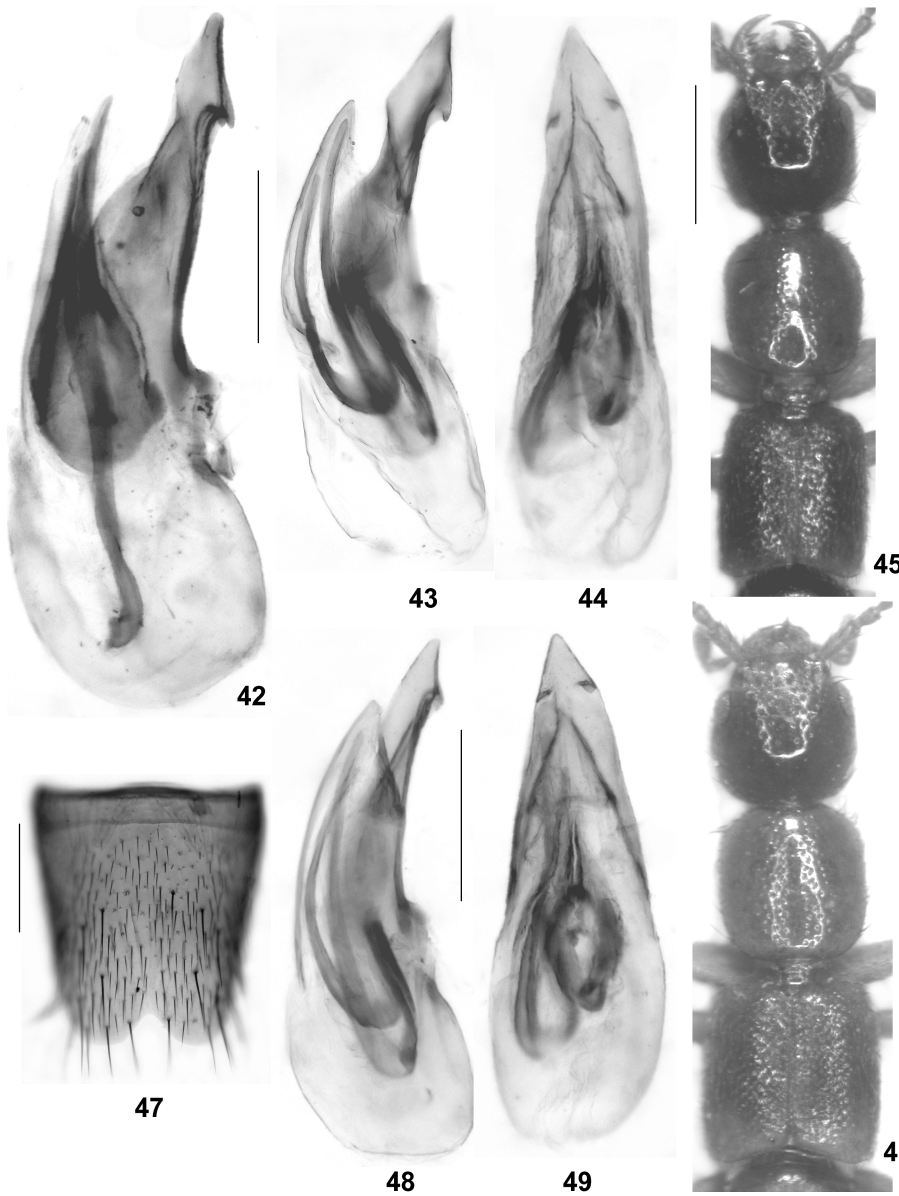
Comparative notes: The species is distinguished from other species of the *S. bicolor* group by the more or less uniformly reddish coloration of the forebody, the short elytra, and especially by the shape and internal structures of the aedeagus.

Distribution: *Sunius mallorcensis* has become known only from Mallorca, where it is apparently endemic.

### 4.25. *Sunius ibizae* nov.sp. (Figs. 45-49, Map 11)

Type material: Holotype ♂: "Ibiza, Umg. San Miguel, lg. H. Franz / Sp 720-23 [overleaf] / Holotypus ♂ *Sunius ibizae* sp. n. det. V. Assing 2007" (NHMW). Paratypes: 2♀♀: same data as holotype (NHMW, cAss); 4♀♀: "Ibiza, Sierra Grosa, lg. H. Franz / Sp 719 [overleaf]" (NHMW, cAss); 1♀: "Insel Ibiza, lg. H. Franz / Sp 726" (NHMW); 1♀: "Umg. Ibiza, Insel Ibiza / Sp 726 [overleaf] / Hypomedon melanocephalus F., H. Coiffait det. 1966" (NHMW).

Description: 3.5-4.2 mm. In external and sexual characters highly similar to *S. mallorcensis*, but distinguished as follows:




**Figs 42-49**: *Sunius algiricus* (COIFFAIT), paratype (**42**), *S. mallorcensis* (COIFFAIT), holotype (**43-44**), and *S. ibizae* nov.sp. (**45-49**): (**42-44, 48-49**) aedeagus in lateral and in ventral view; (**45-46**) forebody of holotype (45) and paratype (46); (**47**) male sternite VIII. Scale bars: 45-46: 0.5 mm; 42-44, 47-49: 0.2 mm.

Parts of head and elytra usually slightly darker than pronotum. Head as wide as long or weakly oblong; microsculpture on frons more distinct. Eyes more prominent (Figs 45-46).

Elytra longer and broader, 1.1-1.2 times as wide and 0.85-0.95 times as long as pronotum (Figs 45-46). Hind wings of reduced length, but rudiments much longer than in *S. mallorcensis*. Abdominal tergite VII as in *S. mallorcensis* with or without narrow rudiment of a palisade fringe.

♂: sternite VIII as in Fig. 47; aedeagus with similar internal structures as in *S. mallorcensis*, but apex of ventral process of different shape (Figs 48-49).

Etymology: The name (noun, genitive) refers to the fact that this species is probably endemic to Ibiza.

Comparative notes: The species is reliably distinguished from similar species only based on the shape and internal structures of the aedeagus.

Distribution and bionomics: All the type specimens are from Ibiza, (Baleares, Spain), where the species is probably endemic. Bionomic data are not specified on the labels.

### 4.26. *Sunius meybohmi* (ASSING 2003)

Type material examined: see ASSING (2003b).

Additional material examined: Spain: 3 exs., Zamora, Lac de Sanabria, 26.VIII.1971, leg. Senglet (cAss).

Diagnosis: In external morphology highly similar to *S. bicolor*; distinguished only by the distinctive shape of the aedeagus.

♂: aedeagus as illustrated by ASSING (2003b).

Distribution: The species was previously known only from three localities in Portugal (ASSING 2003b). It is here recorded from Spain for the first time.

### 4.27. *Sunius nigrinus* (EPPELSHEIM 1892), revalidated (Figs 50-54, Map 13)

*Medon propinquus nigrinus* EPPELSHEIM 1892: 337.
*Medon picinus* BERNHAUER 1902: 245; **nov.syn.**
*Medon meuseli* BERNHAUER 1905: 584 f.; **nov.syn.**
*Medon lebedevi* ROUBAL 1926: 244 f.; **nov.syn.**

Type material examined:
*M. nigrinus*: Lectotype ♂; present designation: "propinqua Bris., Margalan, Turkestan, Staudinger / nigrina / c. Epplsh. Steind. d. / Lectotypus ♂ *Medon nigrinus* Eppelsheim, desig. V. Assing 2007 / Sunius nigrinus (Eppelsheim) det. V. Assing 2007" (NHMW). Paralectotype: 1♂ [originally mounted on the same pin as the lectotype]: same data as lectotype (NHMW).
*M. picinus*: Lectotype ♂; present designation: "♂ / Margalan, Centralasien / picinus Brh. Type, Staudinger / Fauvel vidit / Chicago NHMus. M. Bernhauer Coll. / Sunius picinus (Bh.) V. I. Gusarov det. 1993 / Lectotypus ♂ *Medon picinus* Bernhauer, desig. V. Assing 2007 / Sunius nigrinus (Eppelsheim) det. V. Assing 2007" (FMNH). Paralectotypes: 1 ex. [heavily damaged by *Anthrenus* sp.]: same data as lectotype (FMNH); 1 ex.: Aulie Ata, Staudinger / picinus Brh. Type, Centralasien / Chicago NHMus. M. Bernhauer Coll. (FMNH).
*M. meuseli*: Holotype ♀: "Transcaspien, K. Aris / Meuseli Brnh. Typus, det. Bernhauer / Meuseli Bernh. Typus / Chicago NHMus. M. Bernhauer Coll. / Sunius nigrinus (Eppelsheim) det. V. Assing 2007" (FMNH).

Additional material examined: Russia: 1♂, Wolgogradskaya Oblast, Krasnoarmeysk ["Sarepta", 48°32N, 44°36E] (cAss). Kyrgyzstan: 1♂, 1♀, Osh region, Sarychelek Nat. Res., 9.X.1989, leg. Gusarov (cTro); 1♀ [external morphology as in holotype of *S. meuseli*], Osh region, Kitschi Alai, Abschir-Say valley, 40°05'N, 72°21'E, 2120 m, 13.IV.2006, leg. Schmidt (cAss); 1♀, Chatkal range, Sarychelek lake, 6.VI.1996 (cSch); 1♀, Karakol ["Prshevalsk, Semiretsh. obl."], IV.1901, leg. Kuzenko (cBoh). Turkmenistan: 1 ex., W Ashkhabad, Sulyukly ["Transcaspia, Neu-Saratow", 38°02N, 57°25E] (MNHUB); 1 ex., Loṭfābād ["Ljutfabad"] (cAss). Kazakhstan: 3 exs., Dzhambul ["Aulie Ata"] (HNHM, cAss); 1 ex., Dzhambul, "Syrdaria" (SMNS); 6 ex., Karatal river, 30 km Taldy-Kurgan, 1.VII.2004, leg. Kastcheev (MNHUB, cAss); 2 exs., Kok-pek, Chyngilsu river, 13.VI.2004, leg. Kastcheev (MNHUB, cAss); 1 ex., Ketmen mt., Rodgornoe, 22.VI.1984, leg. Kastcheev (MNHUB); 4 exs., Dzhetysay ["Djetysai"], Syrdaria river, 6.VI.1980, leg. Kastcheev (MNHUB); 1 ex., Djungar mt., Aksu river, Dzhansugurov, 15.VIII.1987, leg. Kastcheev (cAss); 4 exs., Ile river, Kapchagai, Pristan Nauka, 21.IX.1981, leg. Kastcheev (MNHUB). Uzbekistan: 4 exs., Margil'on ["Margelan"], leg. Reitter (HNHM, MNHUB); 1 ex., Margil'on (SMNS); 2 exs., Tashkent (NHMW, cAss); 4 exs., Buchara (MNHUB, cAss); 1 ex., E Tashkent, Chatkalskyi range, Shikaftar, 26.VII.2001 (cSch); 1 ex., Syrdarja range, Talass valley, VI.-VII.1907, leg. Fischer & Willberg (MNHUB); 1 ex., Talass valley, leg. Fischer (cBoh); 1 ex., "Ost-Buchara, Tschixschantan" (MHNG). Tajikistan: 1♂, Alai, Dugoba river, 2000 m, VII.1995 (cAss). China: 1 ex., Xinjiang province, Tianshan mountains, north flank of Bogda Feng, ca. 110 km E Urumqi, Tianchi, 43°53'N, 88°08'E, 2000 m, VIII.1986, leg. Rougemont (cAss). Locality not specified, ambiguous, or not identified: 10 exs., "Turkestan", leg. Leder & Reitter (HNHM, NHMW); 2♀♀, Alai, leg. Schröder (NHMW); 4 exs., "Turcmenien", leg. Leder & Reitter (DEI, HNHM); 1 ex., "Andischan", leg. Aris (MNHUB); 8 exs. [without data] (cBoh).

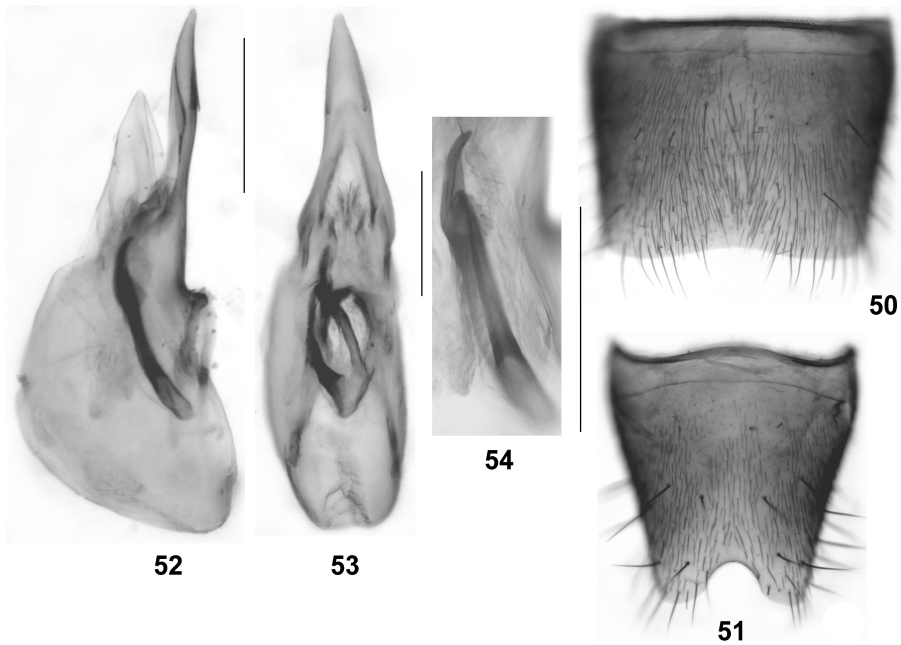
Comments: *Medon nigrinus* was described as a variety of *Sunius propinquus* from few syntypes ("in wenigen Ex.") from "Taschkent" and "Margalan" (EPPELSHEIM 1892). The name was previously listed as a synonym of *S. bicolor* (e. g. COIFFAIT 1984; SMETANA 2004). Two male syntypes from Margalan were located in the Eppelsheim collection at the NHMW; one of them is here designated as the lectotype.

The original description of *Medon picinus* is based on a "größere Anzahl von Stücken von Margelan und Turkestan (Aulie Ata)" (BERNHAUER 1902). Three syntypes, two from Margelan and one from Aulie Ata were found in the Bernhauer collection; a male in good condition from the former locality is here designated as the lectotype. It is conspecific with the lectotype of *Medon nigrinus*.

*Medon meuseli* was described from a single specimen ("ein einziges Stück") from "Transkaspien ohne nähere Fundortangabe" (BERNHAUER 1905). The female holotype of *S. meuseli* is distinguished from the type material of *M. picinus* by longer and broader elytra. However, since no further distinguishing characters were found, there is little doubt that it represents the macropterous morph of *S. nigrinus*.

The original description of *Medon lebedevi* is based on an unspecified number of syntypes from "Rossia or.: Kazan" (ROUBAL 1926). The aedeagus of a syntype from the Roubal collection was examined and figured by BORDONI (1980b). The illustration matches the aedeagus of *S. nigrinus*; hence the synonymy proposed above.

Diagnosis: *Sunius nigrinus* is evidently wing-dimorphic or -polymorphic, and the relative length and width of the elytra are subject to considerable variation, as is shown by the following ratios: length of elytra/length of pronotum: 0.95-1.15; combined width of elytra/width of pronotum: 1.15-1.25. The coloration is highly variable, the colour of the pronotum and the elytra ranging from reddish to blackish.




**Figs 50-54**: *Sunius nigrinus* (EPPELSHEIM): (**50**) male sternite VII; (**51**) male sternite VIII; (**52-53**) aedeagus in lateral and in ventral view; (**54**) internal structures of aedeagus in lateral view. Scale bars: 50-51: 0.5 mm; 52-53: 0.2 mm; 54: 0.1 mm.

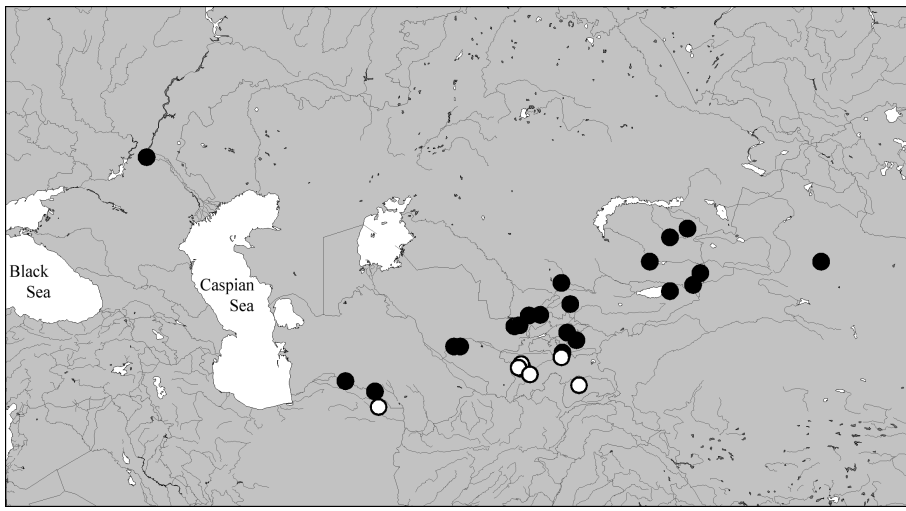
The species is characterised by moderately large size, moderately long (submacropterous morph) to very long (macropterous morph) and broad elytra, and especially by the morphology of the aedeagus.

♂: sternite VII with weakly modified pubescence, posterior margin weakly concave (Fig. 50); sternite VIII with finely margined and distinctly U-shaped posterior excision, pubescence unmodified (Fig. 51); aedeagus of distinctive shape, internal sac with two distinctly sclerotised spines, one of them long, slender, and more or less straight, and the other shorter, stouter, and apically curved (Figs 52-54).

Intraspecific variation: The species is subject to pronounced intraspecific variation affecting especially external characters such as coloration, size, the puncturation of the forebody, and the length and width of the elytra.

Distribution and bionomics: *Sunius nigrinus* is widespread in Middle Asia; records from Uzbekistan, Tajikistan, Kazakhstan, Kyrgyzstan, and Turkmenistan are here confirmed. Previous records from Afghanistan (SMETANA 2004) are probably based on misidentifications and are likely to refer to *S. afghanicus*. The species is here reported from Russia and China for the first time (Map 13).

The examined material with labels specifying ecological data and dates was collected mostly in river valleys at altitudes of approximately 2000 m in spring, summer, and early autumn (April, July-October).




**Map 13**: Distributions of *Sunius nigrinus* (EPPELSHEIM) (filled circles), and *S. praecisus* nov.sp. (open circles), based on examined records.

### 4.28. *Sunius praecisus* nov.sp. (Figs. 55-63, Map 13)

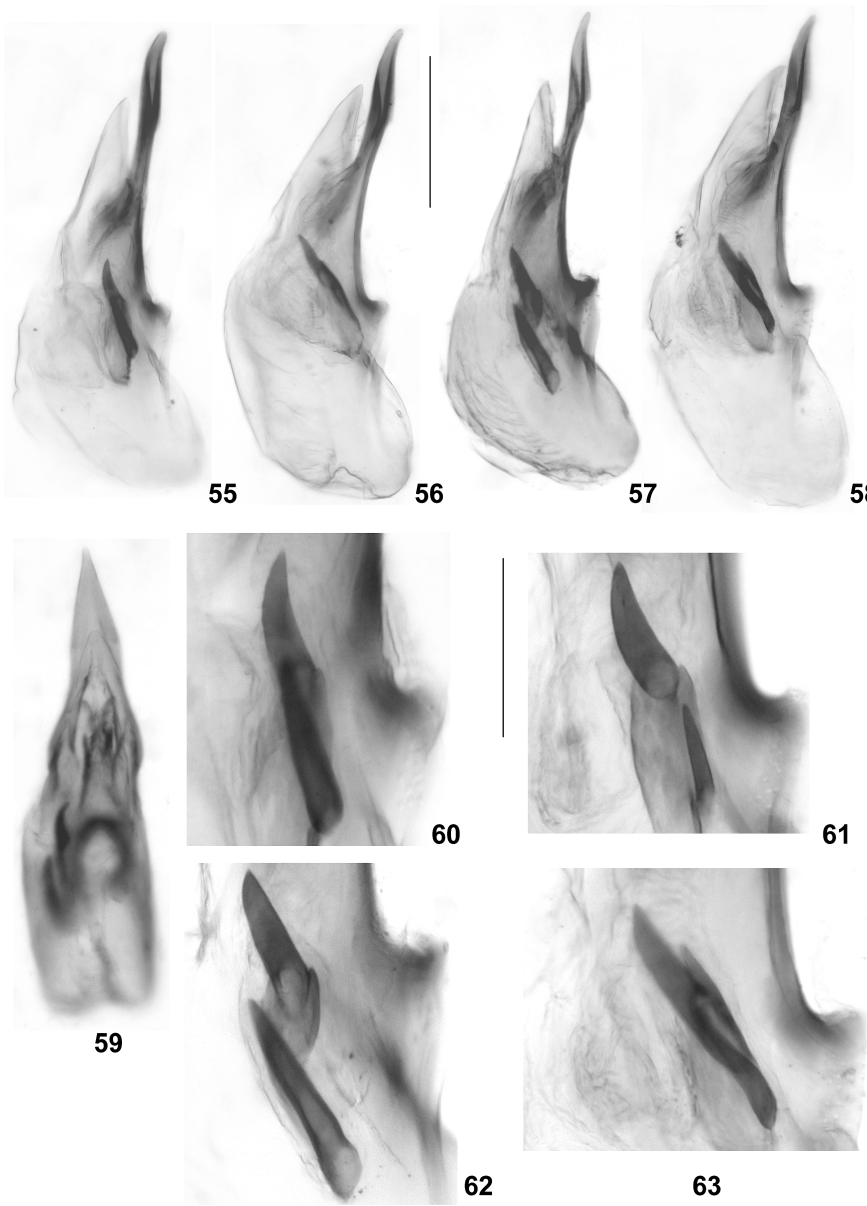
T y p e m a t e r i a l : Holotype ♂: "USSR Asia cent. Tadzhikistan, Pamir-Alai, Hissar-Mts. / Adshuk-Cleft near Warsob, 1200 m, 1.-3.VII.1990, leg. Schülke & Wrase / Holotypus ♂ *Sunius praecisus* sp. n. det. V. Assing 2007" (cAss). Paratypes: 2 exs.: same data as holotype (cSch); 3 exs.: "Tadzikistan: Hissar-Alai, Adjuk-Cleft nr. Warsob, Bachufer, 1.-3.VII.1990, leg. M. Schülke" (cSch); 2 exs.: "SU: Tads.: Pamir: Muksu-Gebiet, b. Kishlak Kandou / 2800 m, VII.1990, leg. Schmidt" (cSch); 1 ex.: "Tadshikistan, Romit-Schlucht b. Duschanbe, 18.VII.1984, leg. Wrase" (cAss); 5 exs.: "USSR-Tajikistan, Hissar Mt. Takob 3000 m, J. Boháč lgt. / 20.4.83" (cBoh, cAss); 8 exs.: "USSR-Tajikistan, Hissar Mt. Takob 3000 m, J. Boháč lgt. IV.83" (cBoh, cAss); 1 ex.: "USSR-Tadžikistan, 19.4.1978, Javroz (pr. Dušanbe) (Hissar Mt.), cca [sic] 1000 m, J. Strejček lgt." (cBoh); 3 exs.: "USSR-Tajikistan, Varzob val. 1600 m, J. Boháč lgt. IV.83" (cBoh); 1 ex.: "USSR-Tajikistan, Kara-tau Mt., pr. Nurek, 1600 m, Boháč lgt. / 23.IV.83" (cBoh); 2 exs.: "Javoch [?], 19.V.1964" (cBoh); 2 exs.: "Hissar Alai, Romit, VII.1982, leg. Makarenko [label in Cyrillic, transliterated]" (cBoh); 2 exs.: Gorno Badakhshanskiy Autonomous Oblast, Rushanskiy mts., near geologists´ camp, 2200 m, 21.V.1982, leg. Mikhailov [translated from Cyrillic], 2200 m, 21.V.1982 (cSch); 1♂: "Iran, Razavi Khorasan Prov., Sah Jahan Mts.: SW Mareshk: Gosh, 1500 m (Koppe Dag), N36°42'16", E059°34'58", 26.05.2006, lg. Frisch & Serri" (cAss).

D e s c r i p t i o n : External morphology as in dark-coloured specimens of *S. nigrinus*.

♂: sternite VIII of similar morphology as in *S. nigrinus*, also with finely margined and distinctly U-shaped posterior excision, pubescence unmodified; aedeagus of similar shape as in *S. nigrinus*, but apex of ventral process slightly more slender in lateral view; internal sac with 2-3 distinctly shorter sclerotised basal structures and with less curved and much less conspicuous subapical structures (Figs 55-63).

C o m p a r a t i v e n o t e s : As can be inferred from the similarity of external and male sexual characters, *S. praecisus* is closely related to *S. nigrinus* and its allies. A reliable separation from these species is possible only based on the morphology of the aedeagus, especially the shape of the internal structures.

E t y m o l o g y : The name (Latin, adjective: shortened) refers to the short spines in the internal sac of the aedeagus.



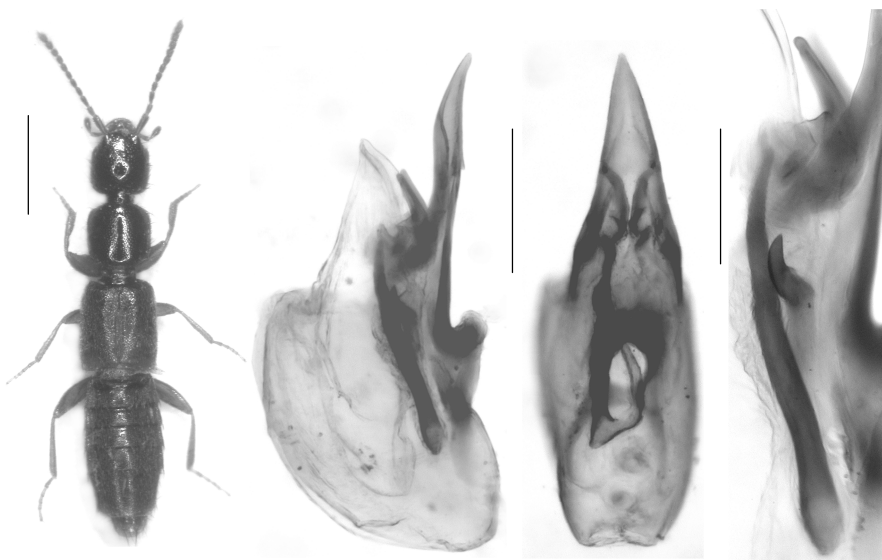

**Figs 55-63**: *Sunius praecisus* nov.sp.: (**55-58**) aedeagus in lateral view of males from Tajikistan (55-56, 58)) and Iran (57); (**59**) aedeagus in ventral view; (**60-63**) internal structures of aedeagus in lateral view of males from Tajikistan (60-61, 63) and Iran (62). Scale bars: 55-59: 0.2 mm; 60-63: 0.1 mm.

D i s t r i b u t i o n a n d b i o n o m i c s : The known distribution is confined to Tajikistan and Iran (Map 13). As far as can be inferred from the data specified on the labels, the types were collected in river valley and on stream banks at altitudes of 1000-3000 m in April, May, and July.

### 4.29. *Sunius afghanicus* (COIFFAIT 1973) (Figs. 64-68)

*Hypomedon afghanicum* [sic] COIFFAIT 1973: 116 f.

T y p e m a t e r i a l e x a m i n e d :
Paratype ♂: "Bala Murghab, 25.5.-10.6.1964, 470 m (21) / N. Afghanistan, Prov. Herat, coll. O. Jakeš / Paratype / Sunius nigrinus (Eppelsheim) det. V. Assing 2007" (MNHNP); 1♀: "Bala Murghab, 10.6.1964, 470 m (25) / N. Afghanistan, Prov. Herat, coll. O. Jakeš / Allotype / Hypomedon afghanicus Coiff. H. Coiffait det. 1973 / Sunius nigrinus (Eppelsheim) det. V. Assing 2007" (MNHNP).




**Figs 64-67**: *Sunius afghanicus* (COIFFAIT), paratypes: (**64**) habitus; (**65-66**) aedeagus in lateral and in ventral view; (**67**) internal structures of aedeagus. Scale bars: 64: 1.0 mm; 65-66: 0.2 mm; 67: 0.1 mm.

C o m m e n t s : The original description is based on 31 type specimens from "Bala Burghaz, Province de Herat, Afghanistan septentrional" (COIFFAIT 1973). The aedeagus of the male paratype is highly similar to that of *S. nigrinus*, but larger, with more massive and longer basal and subapical internal structures. Since transitional character states are unknown, *S. afghanicus* is here regarded as a distinct species.

D i a g n o s i s : 3.8-4.2 mm. Similar to dark-coloured specimens of *S. nigrinus* (Fig. 64), but distinguished as follows:

Body larger and head with denser puncturation than in average *S. nigrinus*; elytra remarkably long and large, 1.10-1.18 times as long and 1.2-1.3 times as large as pronotum.

♂: sternites VII and VIII as in *S. nigrinus*; aedeagus larger and with longer and more massive basal spines and subapical structures (Figs 65-67).

Distribution: The species has become known only from the type locality [70°08'N, 35°20'E] in northeastern Afghanistan, where it was collected at an altitude of 470 m in late spring. Additional bionomic data are not available.

### 4.30. *Sunius mordicus* nov.sp. (Figs. 68-75)

Type material: Holotype ♂: "Kyrgysztan [sic]: Kyrgyzhky Alatau, foothills, O..to-Say [sic], ca. 1000 m / Holotypus ♂ *Sunius mordicus* sp. n. det. V. Assing 2007" (cAss). Paratypes: 1♂, 1♀: same data as holotype (cSch, cAss); 1♂, 1♀: "06.07.1993, 5 km south of Akshij, riv Kurty, SO-Kazakhstan, leg. R. Predel" (cSch, cAss); 1♂: "Kasachstan (SO), Karaoi-Plateau, 5 km W Ili, 40 km NNW Kapcagai, 7.07.1993, R. Predel" (cSch); 1♂, 3♀♀: "Kazakhstan, Ile river, Pristan Nauka, V. Kastcheev, 21.09.1981" (MNHUB); 1♂, 3♀♀: "Kazakhstan, Kok-pek, Chyngilsu riv., V. Kastcheev, 13.06.2004" (MNHUB, cAss).

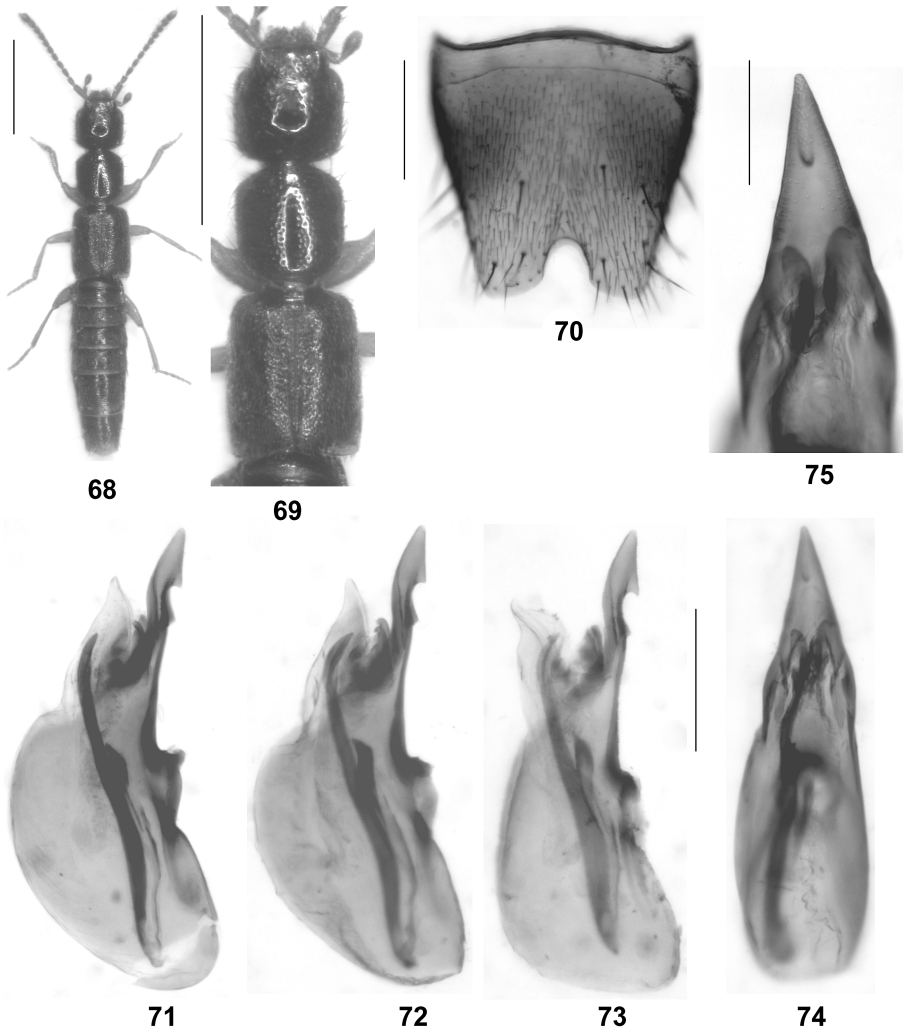
Description: External morphology as in dark specimens of *S. nigrinus* (Figs 68-69); reliably distinguished only by the male primary and secondary sexual characters:

♂: posterior margin of sternite VII broadly concave; sternite VIII of similar morphology as in *S. nigrinus*, also with finely margined and distinctly U-shaped posterior excision, pubescence unmodified (Fig. 70); aedeagus subapically distinctly dentate, internal sac with two distinctly rod-like structures, one of them very long and the other moderately long (Figs 71-75).

Etymology: The name (Latin, adjective: with teeth) refers to the distinctively dentate ventral process of the aedeagus.

Comparative notes: *Sunius mordicus* is a close relative of *S. nigrinus*, as is suggested not only by the remarkable external similarity, but also by the similar general morphology of the aedeagus and particularly by the derived (distinctly U-shaped and finely margined) shape of the posterior excision of the male sternite VIII. Both species are reliably distinguished only based on the morphology of the aedeagus (shape of apex of ventral process in lateral view) and its internal structures, as well as on the shape of the male sternite VII (posterior margin in *S. mordicus* distinctly concave, in *S. nigrinus* only weakly concave).

Distribution and bionomics: The species has become known from several localities in Kazakhstan and Kyrgyzstan. The type specimens were collected in June, July, and September, some of them at an altitude of 1000 m. Additional bionomic data are not available.




**Figs 68-75**: *Sunius mordicus* nov.sp.: (**68**) habitus; (**69**) forebody; (**70**) male sternite VIII; (**71-73**) aedeagus in lateral view of males from Kazakhstan (71-72) and Kyrgyzstan (73); (**74**) aedeagus in ventral view; (**75**) ventral process of aedeagus in ventral view. Scale bars: 68-69: 1.0 mm; 70-74: 0.2 mm; 75: 0.1 mm.

### 4.31. *Sunius plasoni* (EPPELSHEIM 1875)

*Lithocharis plasoni* EPPELSHEIM 1875: 366 f.
*Sunius pinnatus* ASSING 2006a: 308 ff.; **nov.syn.**

Type material examined: *Lithocharis plasoni*: Lectotype ♂ [without head and prothorax]: "♂ / Smyrna, 13.3.71, Dr. Plason / Lithocharis Plasoni Eppelsh. / Typus / c. Epplsh. Steind. d. / Lectotypus ♂ *Lithocharis plasoni* Eppelsheim, desig. V. Assing 2007 / Sunius plasoni (Eppelsheim) det. V. Assing 2007" (NHMW). Paralectotype ♀: "Typus / c. Epplsh. Steind. d." (NHMW).
*Sunius pinnatus*: see ASSING (2006a).

Comment: The original description of *Lithocharis plasoni* is based on an unspecified number of syntypes, among them at least one male, from "Smyrna", today Izmir in western Anatolia (EPPELSHEIM 1875). Two syntypes were found in the Eppelsheim collection at the NHMW, a heavily damaged male and a female; the male is here designated as the lectotype.

*Lithocharis plasoni* was listed as a nomen dubium by SMETANA (2004). An examination of the male primary and secondary sexual characters of the lectotype revealed that it is conspecific with the recently described *Sunius pinnatus*, which is consequently placed in the synonymy of the senior name.

*Sunius pinnatus* was described from the Karadağ range (ASSING 2006a), which is situated some 30 km to the northeast of Izmir. Considering the restricted distributions of related species, it seems likely that the types of *S. plasoni* originated from the same mountain range.

### 4.32. *Sunius brevispinosus* ASSING 2005

Additional material examined: Turkey: Kahramanmaraş: 2 exs., 20 km SW Kahramanmaraş, Dadağlı, 37°20'N, 36°47'E, 675 m, 23.IV.2007, leg. Brachat & Meybohm (cAss).

Comment: The above material was found not far from the type locality of this recently described species.

### 4.33. *Sunius longispinosus* ASSING 2005

Additional material examined: Turkey: Kahramanmaraş: 1 ex., Başkonuş Yaylaşı, 37°33'N, 36°35'E, 1550 m, 24.IV.2007, leg. Brachat & Meybohm (cAss).

Comment: The above specimen was collected at or near the type locality.

### 4.34. *Sunius renouardi* (COIFFAIT 1955) (Figs. 76-78, Map 14)

*Hypomedon renouardi* COIFFAIT 1955: 431 f.

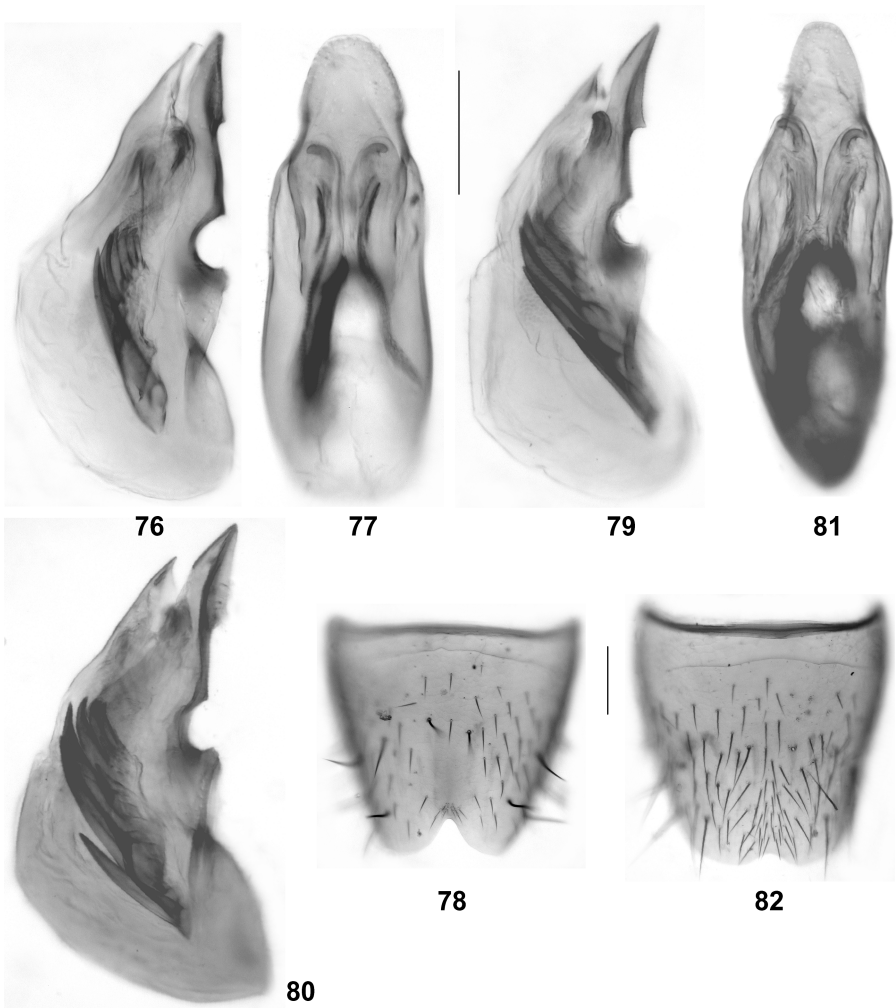
Type material examined: Paratypes: 1♀: "Liban, Jabal Jage, H. Coiffait, 14.XI.51 / Allotype / Renouardi mihi Coiffait det. 1953 / Sunius renouardi (Coiffait) det. V. Assing 2007" (MNHNP); 1♀: "Liban, Tannourine F., H. Coiffait, 13.XI.51 / Paratype / Renouardi mihi Coiffait det. 1953 / Sunius renouardi (Coiffait) det. V. Assing 2007" (MNHNP); 1♂. "Liban, Jabal Jage, H. Coiffait, 14.XI.51 / Paratype / Renouardi mihi Coiffait det. 1953" (MHNG).

Comment: The original description is based on a holotype male from "Jabal Jage" and an unspecified number of paratypes of both sexes from "Jabal Jage, Tannourine Faouka, Dahr el Baidart" (COIFFAIT 1955).

D i a g n o s i s : 2.7-3.3 mm. Whole body of uniformly reddish yellow coloration, abdomen not appreciably darker than forebody. Based on external characters, the species is indistinguishable from other small brachypterous species distributed in the eastern Mediterranean.

♂: sternite VIII with rather broad and deep posterior excision, anterior to this excision with weakly elevated, oblong, non-pubescent carina extending approximately to anterior third of sternite, at apex of excision with cluster of short setae (Fig. 78); aedeagus as in Figs 76-77.

D i s t r i b u t i o n : The species has become known only from Lebanon (Map 14).




**Figs 76-82**: *Sunius renouardi* (COIFFAIT) (**76-78**) and *S. spinosissimus* nov.sp. (**79-82**): (**76, 79-80**) aedeagus in lateral view; (**77, 81**) aedeagus in ventral view; (**78, 82**) male sternite VIII. Scale bars: 0.1 mm.

**4.35. *Sunius spinosissimus* nov.sp.** (Figs. 79-82, Map 14)

T y p e m a t e r i a l : Holotype ♂: "Liban, Cèdres Barouk, 31.III. 75, 1800 m, Besuchet / *Sunius spinosissimus* sp. n. det. V. Assing 2007" (MHNG). Paratypes: 1♂, 2♀♀: same data as holotype (MHNG, cAss).

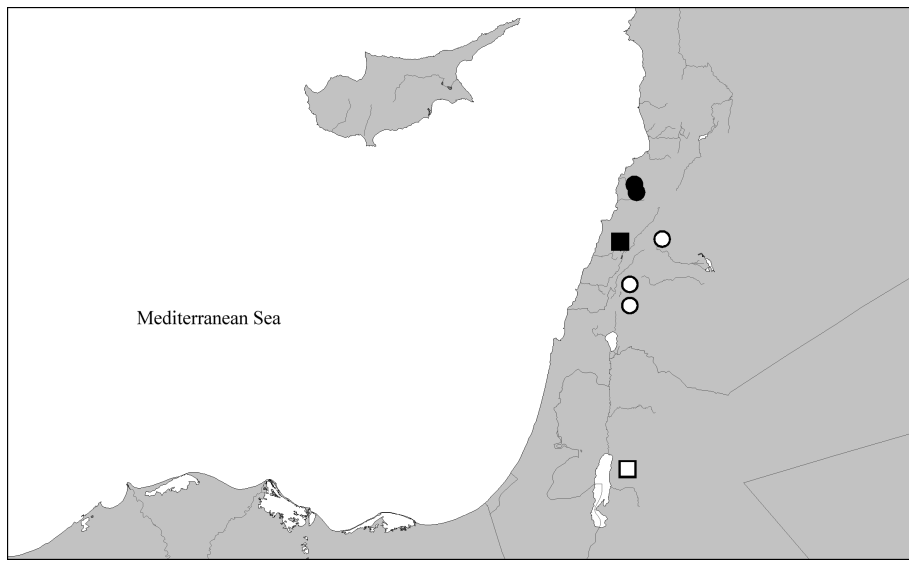
D e s c r i p t i o n : External morphology as in *S. renouardi*; distinguished only by the male sexual characters:

♂: sternite VIII with shallow posterior excision, pubescence in median posterior area slightly denser than in lateral areas, without carina or tubercle (Fig. 82); aedeagus of similar morphology as in *S. renouardi*, but ventral process of slightly different shape in lateral view and internal sac with distinctly larger and more strongly sclerotised spines (Figs 79-81).

E t y m o l o g y : The name (Latin, adjective, superlative of spinosus: with spines) refers to the conspicuous spines in the internal sac of the aedeagus.

C o m p a r a t i v e n o t e s : From *S. renouardi*, evidently its sister species and the only other small micropterous *Sunius* species known from Lebanon, *S. spinosissimus* is distinguished only by the different shape and chaetotaxy of the male sternite VIII and by the morphology of the aedeagus, especially the large dark internal spines.

D i s t r i b u t i o n a n d b i o n o m i c s : The species was discovered in the southwestern outliers of the Lebanon range (Map 14), where the types were collected at an altitude of 1800 m.




**Map 14**: Distributions of species of the *S. seminiger* group in the Middle East: *Sunius renouardi* (COIFFAIT) (filled circles), *S. hypogaeus* (FAUVEL) (open circles), *S. spinosissimus* nov.sp. (filled square), and *S. klapperichi* (COIFFAIT) (open square).

### 4.36. *Sunius klapperichi* (COIFFAIT 1981) (Map 14)

*Hypomedon klapperichi* COIFFAIT 1981b: 16 ff.

T y p e m a t e r i a l e x a m i n e d : Holotype ♀: "S. Jordan, J. Klapperich / Wadi Wala, südl. Madaba, 500 m, 9.2.1958 / u. Steinen / Type / Hypomedon klapperichi H. Coiffait 1980 / Sunius klapperichi det. V. Assing 2007" (MHNG).

C o m m e n t s : The original description is based on a holotype and a paratype, both females, from "Jordanie méridionale, Wadi Wala au sud de Madaba" (COIFFAIT 1981b). The holotype is externally indistinguishable from *S. hypogaeus* and allied species. Since the type locality is some 200 km away from the known distribution of *S. hypogaeus* (Map 14), it seems likely that *S. klapperichi* represents a distinct species. However, since the male sexual characters are unknown, its identity must remain doubtful until males from the vicinity of the type locality become available.

### 4.37. *Sunius hypogaeus* (FAUVEL 1900) (Map 14)

*Medon hypogaeus* FAUVEL 1900: 227.

T y p e m a t e r i a l e x a m i n e d : Holotype ♂: "Anti-Liban, Bloudan / hypogaea Fvl. / TYPE / H. Coiffait vid., 1959 / Holotypus Medon hypogaeus Fauvel rev. V. Assing 2001 / Sunius hypogaeus (Fauvel) det. V. Assing 2001" (IRSNB).

A d d i t i o n a l m a t e r i a l e x a m i n e d **:** Israel: 7 exs., Golan, Mt Hermon, 2000m, 23.IV.1982, leg. Besuchet & Löbl (MHNG, cAss); 5 exs., Golan Heights, Merom Golan, 33°08'N, 35°47'E, 830 m, old oak wood, 2.II.2007, leg. Feldmann (cFel, cAss, TAU); 1 ex., Golan Heights, Merom Golan, 33°08'N, 35°48'E, 940 m, oak forest, leaf litter sifted, 23./30.III.2006, leg. Wrase (cSch).

C o m m e n t : The original description is based on a single specimen from "Anti-Liban: Bloudan" (33°44'N, 36°08'E; today in Syria).

D i a g n o s i s : External characters as in *S. renouardi*.

♂: sternite VIII with deep posterior excision (deeper than in *S. renouardi*), otherwise unmodified; aedeagus as figured by COIFFAIT (1961, 1984).

D i s t r i b u t i o n a n d b i o n o m i c s : The species is apparently endemic to the Antilebanon and Mount Hermon (Map 14); it is here reported from Israel for the first time. The examined specimens were collected at altitudes of 830-2000 m in February, March, and April; most of them were sifted from leaf litter in oak forests.

### 4.38. *Sunius brachypterus* (GEMMINGER & HAROLD 1868) (Map 15)

*Lithocharis brevipennis* W. SCRIBA 1868: 156; primary homonym.
*Lithocharis brachypterus* GEMMINGER & HAROLD 1868: 620; replacement name.
*Hypomedon pyrenaeus* COIFFAIT 1961: 36; **nov.syn.**
*Hypomedon franzi* COIFFAIT 1970: 722 ff.; **nov.syn.**

T y p e m a t e r i a l e x a m i n e d :
*L. brevipennis/brachypterus*: Neotype ♂, present designation: "France Pyrénées orientales, Campôme, Lieudit Fournouls Alt. 750 m, M. Tronquet 30/01/97 / Neotypus ♂ *Lithocharis brachypterus* Gemminger & Harold desig. V. Assing 2007 / Sunius brachypterus (Gemminger & Har.) det. V. Assing 2007" (MNHNP).
*H. pyrenaeus*: Holotype ♂ [aedeagus missing]: "Pyr. or., Ria / ♂ / 444 / Collection H. Coiffait / Holotype / Hypomedon pyrenaeus Coiff., det. H. Coiffait 1969 [sic] / Museum Paris 1985, Coll. H. Coiffait / Sunius brachypterus (Gemminger & Har.) det. V. Assing 2007" (MNHNP).
*H. franzi*: Holotype ♂: "Zw. Argèles u. Collioure / Holotype / Hypomedon franzi Coiff., det. H. Coiffait 1969 / Museum Paris 1985, Coll. H. Coiffait" (MNHNP).

Additional material examined: France, Pyrénées-Orientales: 1 ex., Campôme, 900-1200 m, 13.V.1996, leg. Tronquet (cAss); 1 ex., Campôme, 800 m, 5.V.2001, leg. Tronquet (cTro); 1 ex., Campôme, 750 m, 2.IV.1999, leg. Tronquet (cTro); 1 ex., Campôme, Fournouls, 750 m, 30.I.1997, leg. Tronquet (cTro); 8 exs., Campôme, Fournouls, 700 m, 4.V.1996, leg. Tronquet (cTro); 1 ex., Campôme, Roc des Creus, 900-1100 m, 26.II.1999, leg. Tronquet (cTro); 4 exs., Campôme, 800 m, under stones, 23.I.1998, leg. Tronquet (cTro); 12 exs., Campôme, 900-1100 m, under stones, 9.II.1998, leg. Tronquet (cTro, cAss); 5 exs., Campôme, Serrat d'Estrade, 900-1200 m, 13.V.1996, leg. Tronquet (cTro); 2 exs., Col de Banyuls, 350-500 m, under stones, leg. Tronquet (cTro, cAss); 8 exs., Sirach, Corneilla de Conflent, Plateau d'Ambouilla, 750 m, 2.V.1996, leg. Tronquet (cTro); 5 exs., Conat, l'Arête, 1400-1450 m, under stones, 7.III.2000, leg. Tronquet (cTro); 11 exs., Molitg-les-Bains, Les Planes, 700-750 m, under stones, 4.III.1997, leg. Tronquet (cTro); 1 ex., Molitg-les-Bains, oak litter, 22.II.2002, leg. Tronquet (cTro); 1 ex., Jujols, 1100-1300 m, under stone, 13.IV.2004, leg. Tronquet (cTro); 2 exs., Port-Vendres ["Port Vendus"] (HNHM); 2 exs., Ria [42°37'N, 2°24'E] (MHNG). Locality not specified: 4 exs., "Pyrénées", leg. Guillebeau (NHMW); 1 ex., "Pyr. or." (MHNG).

Comments: *Lithocharis brevipennis* SCRIBA, 1868, a primary junior homonym of *L. brevipennis* WOLLASTON, 1864, was described from the "Pyrenäen" and in the same year replaced with *Lithocharis brachypterus* by GEMMINGER & HAROLD (1868). According to HORN et al. (1990), the Scriba collection is deposited in the Senckenberg Museum, Frankfurt, where the type material of *L. brevipennis* was looked for, but not found by the curator in charge (HASTENPFLUG-VESMANIS pers. comm. 2007). Nor was it found in any other major collection, where Scriba material may be deposited, suggesting that the type material in question is lost. In view of the fact that *Lithocharis brachypterus* was made available as early as 1868 and is thus one of the oldest *Sunius* names in the Western Mediterranean, a neotype designation seems advisable in order to ensure nomenclatural stability. The only species matching the original description and distributed in the Pyrénées is the species previously referred to as *S. franzi* or *S. pyrenaeus* (see below). A recently collected male of this species from the Eastern Pyrénées is here designated as the neotype and deposited in the MNHNP.

The original description of *H. pyrenaeus* is based on a holotype male from "Pyrénées-Orientales, Ria" and an unspecified number of paratypes of both sexes from "Pyrénées-Orientales: Forêt de la Massane, région de Port-Ventres, Collioures et Banyuls" (COIFFAIT 1961). The aedeagus of the holotype is missing. *Hypomedon franzi* was described from a holotype male and a female paratype from "Argéles-sur-Mer, Pyrénées orientales" (COIFFAIT 1970).

Although the aedeagus of the holotype of *S. pyrenaeus* is missing, the available evidence leaves little doubt that the type material of *S. pyrenaeus* and *S. franzi* is conspecific. First, the external characters, as well as the secondary sexual characters of the types of both species are identical. Second, according to TRONQUET (2006), *Sunius franzi* is common and rather widespread in the Pyrénées Orientales, even at and near the type locality of *S. pyrenaeus*, and there is no evidence whatsoever of the presence of two species in the area. Third, there is not a single example of sympatry among species of the *S. seminiger* group; they are all strictly para- or allopatric. Fourth, the aedeagus illustrated by COIFFAIT for *S. pyrenaeus* is of rather unusual morphology for a species that, based on the male secondary sexual characters (presence of a tubercle on sternite VIII), is evidently closely related to *S. tuniseus* and allied species. Finally, the identification label attached to the holotype of *S. pyrenaeus* is dated 1969, although the species was described eight years earlier, suggesting some serious confusion of labels and/or specimens. Consequently, *S. franzi* is here placed in the synonymy of *S. pyrenaeus*.

D i a g n o s i s : External morphology similar to that of other small micropterous congeners. Forebody yellowish; abdomen blackish. For a high-quality photograph of the habitus see the illustration of *S. franzi* in TRONQUET (2006).

♂: sternite VIII with pronounced keel-like median elevation; aedeagus with apical part of ventral process long; internal sac with 3-4 slender spines. For illustrations of the aedeagus see the figures in COIFFAIT (1970, 1984) (as *S. franzi*).

D i s t r i b u t i o n a n d b i o n o m i c s : The distribution of this species is confined to the French part of the eastern Pyrénées (Map 15). SMETANA (2004) also indicates it for Spain (as *S. franzi*), but this record is not confirmed and should be considered doubtful; it is not listed for Spanish territory by GAMARRA & OUTERELO (2007). For a list of localities see TRONQUET (2006). The material examined was collected at altitudes between 350 and 1450 m in winter and spring (January-May).

### 4.39. *Sunius seminiger* (FAIRMAIRE 1860) (Figs 130-131, Map 15)

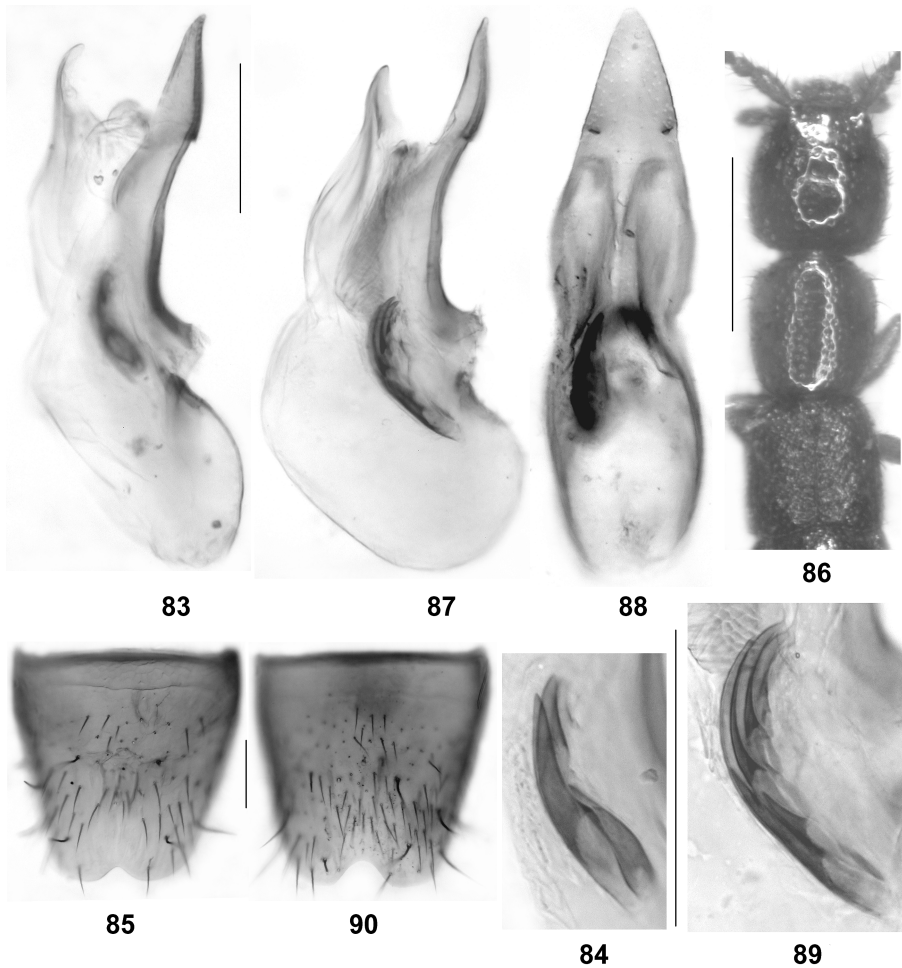
*Lithocharis seminigra* FAIRMAIRE 1860: 161 f.
*Lithocharis aveyronnensis* MATHAN 1862: 244; resynonymised.

T y p e m a t e r i a l e x a m i n e d : Lectotype ♂, here designated: "Nimes / Lectotypus ♂ Lithocharis seminigra Fairmaire desig. V. Assing 2007 / Sunius seminiger (Fairmaire) det. V. Assing 2007 (MSA). Paralectotype ♂ [aedeagus missing]: "Type / Lithocharis seminigra, Mers K. / Paralectotypus Lithocharis seminigra Fairmaire desig. V. Assing 2007 / Sunius sp., det. V. Assing 2007" (MNHNP).

C o m m e n t s : *Lithocharis seminigra* was described from an unspecified number of syntypes from "Mers-el-Kébir (Coquerel); Algérie (Lalleman)" and "aux environ de Nîmes" (FAIRMAIRE 1860). Two syntypes were located, one of them in the Fairmaire collection at the MNHNP. It is a dissected male, evidently the specimen from Mers el Kébir, but the aedeagus is missing, so that an interpretation is problematic. The male sternite VIII is characterised by a distinct median projection, but there may be other species with similar male secondary sexual characters in the region. The syntype from Nîmes was collected by Perris, whose collection is deposited at the MSA in Montpellier. It is a male and conspecific with *S. aveyronnensis*. It is here designated as the lectotype, so that *S. aveyronnensis* is now as junior synonym of *S. seminiger*, a synonymy already proposed by FAUVEL (1866). No types were found in the Fauvel collection at the IRSNB (GÉRARD, e-mail 6.VIII.2007). The paralectotype from Mers el Kébir, which is situated some 10 km to the northwest of Oran, northwestern Algeria, doubtlessly refers to a different, apparently undescribed species of approximately 2.6 mm. Its body is bicoloured with the forebody yellowish brown and the abdomen dark brown. The species is similar to *S. brachypterus* and its allies, but distinguished by the male sexual characters. The male sternite VIII is oblong and has a pronounced pubescent median tubercle distinctly projecting postero-ventrad (lateral view). The posterior excision of the male sternite VIII is moderately deep and V-shaped. From *S. baboricus*, the only other Algerian species with a tubercle on the male sternite VIII, this species is distinguished by the shape of the male sternite VIII (more oblong, posteriorly more deeply incised, more pronounced tubercle).

According to COIFFAIT (1961, 1984), *S. seminiger* is distributed in the Djebel Ta Babor. However, this mountain is separated from Mers el Kébir (near Oran), the locality where the paralectotype was found, by some 600 km, so that, for zoogeographic reasons alone,

it would be highly unlikely that both populations should be conspecific. Moreover, COIFFAIT (1984) explicitly states that the species he interprets as *S. seminiger* lacks a tubercle on the male sternite VIII.




**Figs 83-90**: *Sunius catalonicus* (COIFFAIT) (**83-85**) and *S. nevadensis* (COIFFAIT), paratype (**86-90**): (**83, 87**) aedeagus in lateral view; (**84, 89**) internal structures of aedeagus in lateral view; (**85, 90**) male sternite VIII; (**86**) forebody; (**88**) aedeagus in lateral view. Scale bars: 86: 0.5 mm; 83-85, 87-90: 0.1 mm.

*Lithocharis aveyronnensis* was described from an unspecified number of syntypes from "Millau (Aveyron), sous les pierres" (MATHAN 1862). They were not examined, but since some of the above specimens are from the vicinity of the type locality of this species, there is little doubt that they are conspecific with the type material.

Additional material examined: France: 2 exs. [1 teneral], Aveyron, La Cavalerie [44°00'N, 3°09'E], 29.VII.1925 (MHNG, cAss); 2 exs., Aveyron, La Fabière (near La Cavalerie], 30.VII. (MHNG); 1 ex., Aveyron, Causse du Larzac, under stone, 29.V.1975, leg. Barrier (cTro); 1 ex., Lozère, Causse Méjean, VI.1973, leg. Tempère (cSch); 1 ex., Lozère, Causse Méjean, 11.X.1967, leg. Tempère (MHNG); 1 ex., Lozère, Col de Finiels, 1540 m, 8.VI.1967, leg. Tempère (cAss); 3♀♀, Gard, Causse, near Lanuéjols, 3.V.1964, leg. Puthz (MHNG); 1 ex., Hérault, Ferrières-les-Verreries, near Grotte de Corniès, 260 m, 18.III.2001, leg. Piry (cTro).

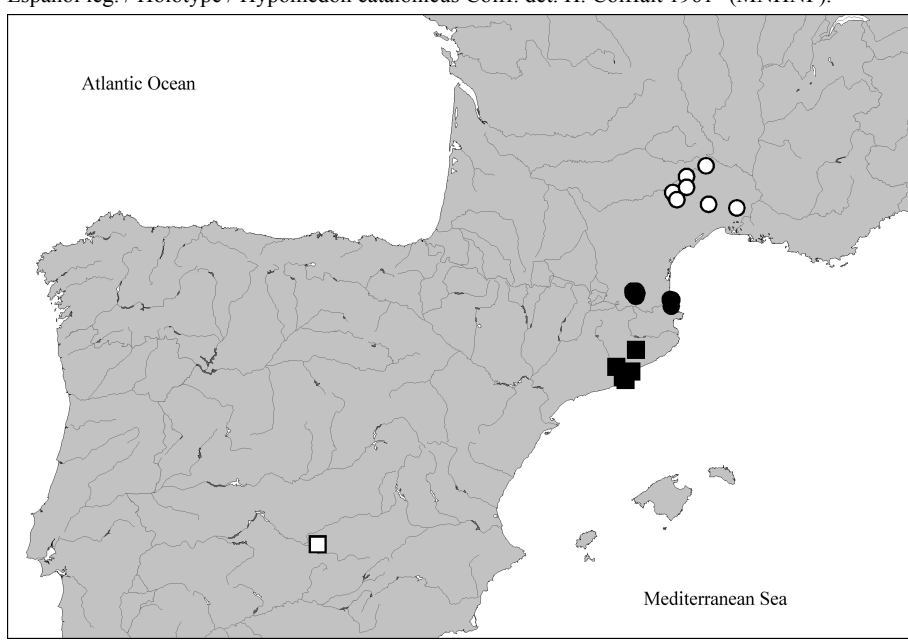
Diagnosis: External morphology as in *S. brachypterus*.

♂: sternite VII with weakly concave posterior margin, pubescence unmodified; sternite VIII with moderately deep posterior incision, otherwise unmodified (Fig. 131); aedeagus of similar morphology as in *S. brachypterus*, but with ventral process less slender in lateral view; internal sac with short row of sclerotised slender spines (Fig. 130).

Distribution and bionomics: The species is endemic to the southern Massif Central and adjacent areas (Map 15). The material examined was collected at altitudes of 260-1540 m in March, May-July, and October. One specimen collected in July is teneral.

### 4.40. *Sunius catalonicus* (COIFFAIT 1961) (Figs 83-85, Map 15)

*Hypomedon catalonicus* COIFFAIT 1961: 37.
Type material examined: Holotype ♂: "Terrassa (prov. Barcelona), II.34, Español leg. / Holotype / Hypomedon catalonicus Coiff. det. H. Coiffait 1961" (MNHNP).




**Map 15**: Distributions of species of the *S. seminiger* group in southern France and Spain, based on examined records: *Sunius brachypterus* (GEMMINGER & HAROLD) (filled circles), *S. seminiger* (FAIRMAIRE) (open circles), *S. catalonicus* (COIFFAIT) (filled squares), and *S. calatravae* nov.sp. (open square).

Additional material examined: Spain: Cataluña: 1 ex., Sierra de Montseny, 1400 m, 25.X.1974, leg. Curti (MHNG); 2 exs., Tiana, 1935 (MHNG, cAss); 1 ex., Barcelona, Montjuich, 5.III.1954, leg. González (MHNG); 2 exs., Barcelona, Tibidabo,17.II.1952, leg. González (MHNG, cAss).

Comment: The original description is based on the holotype male from "Catalogne, province de Barcelone Terrassa" and an unspecified number of paratypes from various localities in Barcelona and Gerona provinces (COIFFAIT 1961).

Diagnosis: In external appearance highly similar to *S. brachypterus*.

♂: sternite VIII with pubescent tubercle, posterior excision shallow (Fig. 85); aedeagus with short row of about 4 spines in internal sac (Figs 83-84).

Distribution and bionomics: The known distribution is confined to northeastern Spain (Map 15). The examined specimens were collected in February, March, and October.

### 4.41. *Sunius cazorlae* ASSING 2003 (Map 16)

Additional material examined: Spain: 1 ex., Sierra de Cazorla, Pto. de Tiscar, 19.III.1974 (NHMW).

Comment: The known distribution of this species is confined to the Sierra Cazorla (Map 16). For illustrations of the male sexual characters see ASSING (2003b).

### 4.42. *Sunius nevadensis* (COIFFAIT 1970) (Figs 86-90, Map 16)

*Hypomedon nevadensis* COIFFAIT 1970: 722.

Type material examined: Holotype ♂: "Sierra Nevada, lg. H. Franz / Sp 677 [overleaf] / Holotype / Hypomedon nevadensis Coiff., det. H. Coiffait 1966 / Sunius nevadensis (Coiffait) det. V. Assing 2007" (MNHNP). Paratype ♂: same data as holotype (MNHNP).

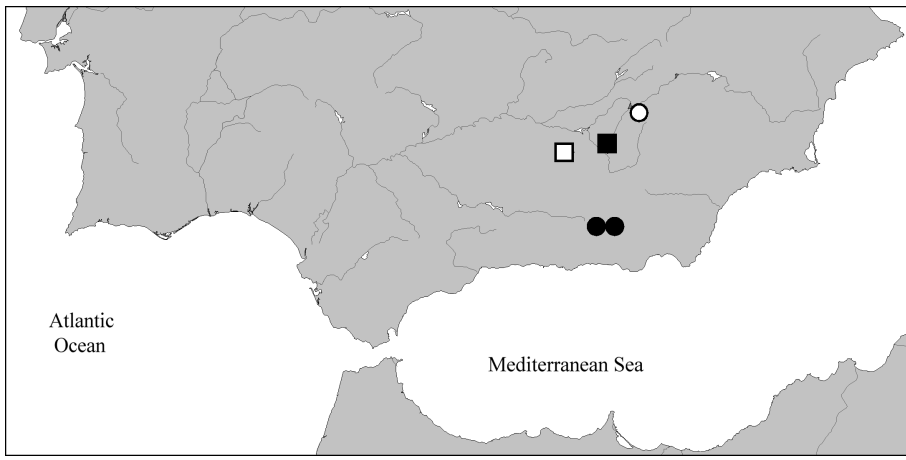
Comment: The original description is based on a holotype male and a female paratype from "Sierra Nevada, Espagne" (COIFFAIT 1970); the paratype, however, is in fact a male. The two females in the Franz collection (NHMW) have labels with the same data as the holotype and were labelled by Coiffait as paratypes. However, since they are not mentioned in the original description, they do not have type status; the paratype labels were removed.

Additional material examined: Spain: 2 exs., Andalucía, Granada, Sierra Nevada, VI.[year illegible], leg. Comellini (MHNG); 2 exs., Sierra Nevada, leg. Franz (NHMW); 4 exs., Granada, Sierra Nevada, 2100-2300 m, 27.IV.1991, leg. Tronquet (cTro); 1 ex., Sierra Nevada, 4.IV.1983, leg. Tronquet (cTro); 19 exs., Almeria, Sierra Nevada, 2100-2550 m, under stones, 18.IV.2000, leg. Tronquet (cTro, cAss); 8 exs., Almeria, Sierra Nevada, Laguna Seca, 2250 m, 19.IV.2000, leg. Tronquet (cTro); 1 ex., Granada, Sierra Nevada, 10.IV.1959, leg. Besuchet (MHNG).

Diagnosis: External morphology as in *S. brachypterus* (Fig. 86).

♂: sternite VII with weakly concave posterior margin, pubescence unmodified; sternite VIII with relatively deep posterior incision, otherwise unmodified (Fig. 90); aedeagus with slender ventral process and with row of distinctly sclerotised slender spines in internal sac (Figs 87-89).

Distribution: *Sunius nevadensis* has become known only from the Sierra Nevada (Andalucía), where the species is apparently endemic (Map 16).




**Map 16**: Distributions of species of the *S. seminiger* group in southern Spain, based on examined records: *Sunius nevadensis* (COIFFAIT) (filled circles), *S. segurae* ASSING (open circle), *S. cazorlae* ASSING (filled square), and *S. behnei* nov.sp. (open square).

### 4.43. *Sunius behnei* nov.sp. (Figs. 91-96, Map 16)

Type material: Holotype ♂: E: Andalusia, 26 km E Jaen, Sierra Magina, 37°44'06"N, 03°30'09"W / 1663 m, Kalk: *Erinaceus antyllis* unter *Pinus*, 6.X.2005, leg. Behne (9) / Holotypus ♂ *Sunius behnei* sp. n. det. V. Assing 2007" (DEI). Paratype ♀: same data as holotype (cAss).

Description: Small species, 2.5-2.8 mm. Habitus as in Fig. 91. Coloration: forebody pale reddish brown; abdomen dark brown; legs and antennae reddish yellow.

Head weakly oblong, weakly dilated posteriad; puncturation coarse, sparse in median dorsal area and moderately dense in lateral areas; microsculpture absent; eyes less than half the length of postocular region in dorsal view (Fig. 92).

Pronotum slightly narrower than head and weakly oblong; puncturation similar to that of head and of variable density (Fig. 92); microsculpture absent.

Elytra approximately as wide and at suture approximately 0.70 times as long as pronotum; puncturation distinctly finer than that of pronotum, dense, and somewhat ill-defined; interstices without distinct microsculpture. Hind wings reduced.

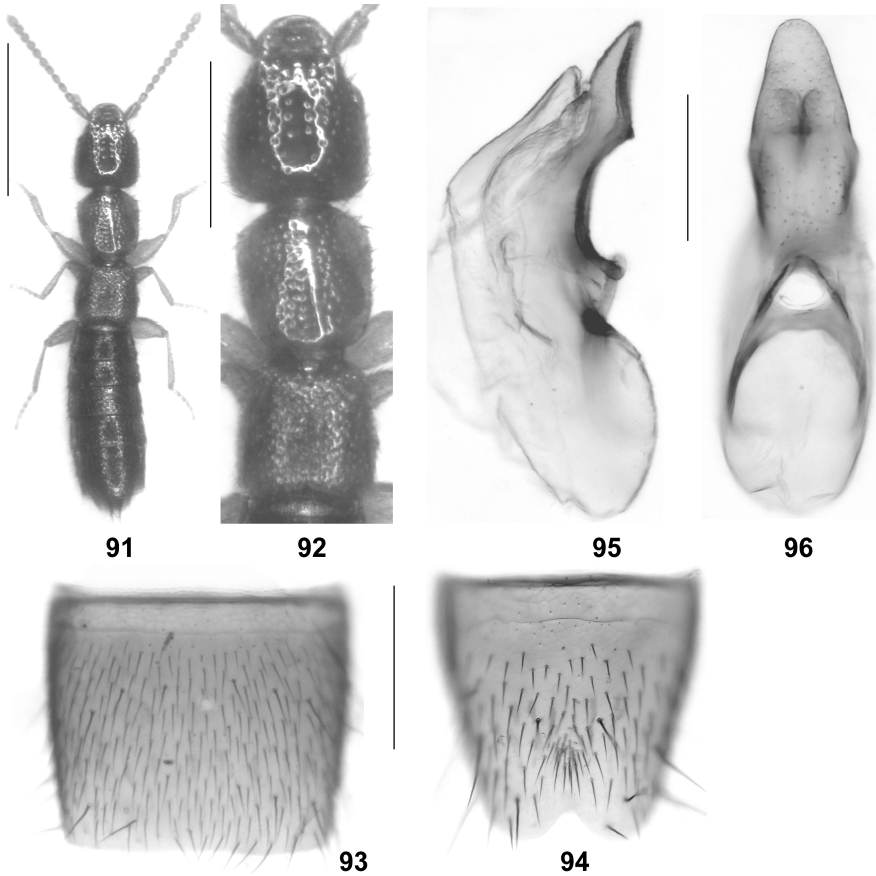
Abdomen approximately 1.1 times as wide as elytra, widest at segment VI (Fig. 91); puncturation fine and moderately dense; interstices with shallow microsculpture; posterior margin of tergite VII without palisade fringe.

♂: sternite VII with weakly modified pubescence (Fig. 93); sternite VIII anterior to posterior excision with small and indistinct subcircular elevation with moderately dense, rather long dark pubescence (Fig. 94); aedeagus shaped as in Figs 95-96, internal sac without sclerotised structures.

Etymology: The species is dedicated to Lutz Behne (DEI), specialist of Curculionidae, who collected the type material.

Comparative notes: The species ist distinguished from other small-sized, brachypterous and pale-coloured congeners occurring in southern Spain (*S. nevadensis*, *S. simoni*, *S. segurae*, *S. cazorlae*, *S. calatravae*, *S. cordobanus*, *S. confusus*) especially

by the shape of the aedeagus, from most of them also by the absence of sclerotised internal structures, as well as by the morphology and chaetotaxy of the male sternite VIII.




**Figs 91-96**: *Sunius behnei* nov.sp.: (**91**) habitus; (**92**) forebody; (**93**) male sternite VII; (**94**) male sternite VIII; (**95-96**) aedeagus in lateral and in ventral view. Scale bars: 91: 1.0 mm; 92: 0.5 mm; 93-94: 0.2 mm; 95-96: 0.1 mm.

Distribution and bionomics: The species is known only from the Sierra Magina, an isolated mountain range ESE of Jaén, Andalucía (Map 16). The fact that *Geostiba jaenica* ASSING, the only other endemic staphylinid confined to this region, is present also in the Sierra de la Pandera (ASSING 2006b) suggests that the same may apply to *S. behnei*. The two type specimens were sifted in a calcareous pine forest at an altitude of approximately 1660 m.

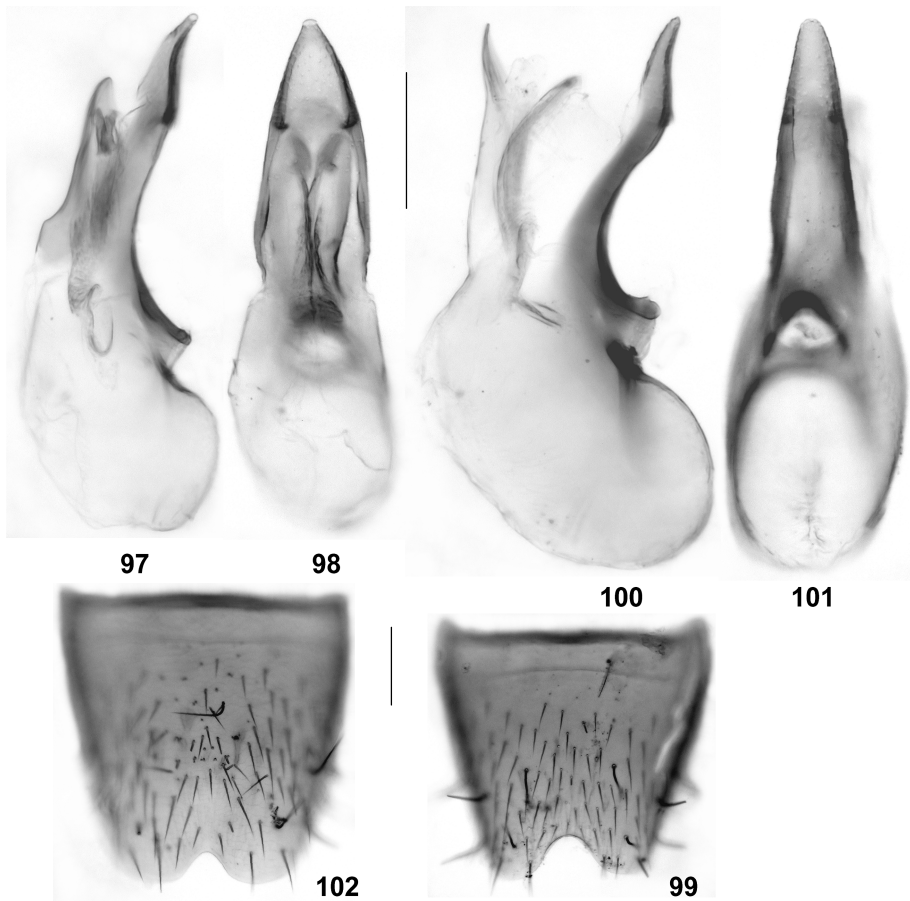
**4.44. *Sunius calatravae* nov.sp.** (Figs. 97-99, Map 15)

T y p e m a t e r i a l : Holotype ♂: E: "Pozuelo de Calatrava (Espagne) / Hypomedon seminiger / Coll. P. Griveau MHNG - 2007 / Holotypus ♂ *Sunius calatravae* sp. n. det. V. Assing 2007" (MHNG). Paratypes: 3♂♂, 3♀♀: same data as holotype (MHNG, cAss).

D e s c r i p t i o n : In external morphology and coloration similar to *S. behnei*, but somewhat smaller (2.2-2.5 mm) and more slender. Additionally distinguished as follows:

Head relatively slender, 1.10-1.15 times as long as wide. Pronotum approximately 1.1 times as long as wide and 0.95 times as wide as head. Elytra 0.75 times as long and approximately as wide as pronotum.

♂: sternite VII with weakly concave posterior margin; sternite VIII with apically rounded and relatively deep posterior excision, otherwise unmodified (Fig. 99); aedeagus shaped as in Figs 97-98, internal sac without sclerotised structures.




**Figs 97-102**: *Sunius calatravae* nov.sp. (**97-99**) and *S. cordobanus* nov.sp. (**100-102**): (**97-98, 100-101**) aedeagus in lateral and in ventral view; (**99, 102**) male sternite VIII. Scale bars: 0.1 mm.

Etymology: The name (noun, genitive) is derived from Calatrava, a knighthood founded in the 12th century and part of the names of several places in the area where the type locality is situated.

Comparative notes: The species ist distinguished from other small-sized, brachypterous and pale-coloured congeners occurring in southern Spain (*S. nevadensis*, *S. simoni*, *S. cordobanus*, *S. confusus*, *S. segurae*, *S. cazorlae*, *S. behnei*) especially by the shape of the aedeagus, from most of them also by the absence of sclerotised internal structures, as well as by the morphology and chaetotaxy of the male sternite VIII.

Distribution and bionomics: The type locality is situated in Ciudad Real, Castilla-La Mancha, southern Spain (Map 15). Bionomic data are not available.

### 4.45. *Sunius simoni* (QUEDENFELDT 1881) (Map 17)

*Lithocharis simoni* QUEDENFELDT 1881: 291.
*Lithocharis nitida* QUEDENFELDT 1881: 291; homonym; **nov.syn.**
*Lithocharis polita* QUEDENFELDT 1883: 151; homonymic replacement name; **nov.syn.**
*Lithocharis nitens* DUVIVIER 1883: 179; replacement name; **nov.syn.**
*Hypomedon quedenfeldti* EPPELSHEIM 1883: 210; synonymic replacement name; **nov.syn.**
*Hypomedon simoni*: COIFFAIT (1970, 1984).
Type material examined: *L. simoni*: Lectotype ♂, here designated: "Algeciras Simon / Paratypus [sic] Lithocharis Simoni Quedenfeldt 1881 / Lectotypus ♂ *Lithocharis simoni* Quedenfeldt, desig. V. Assing 2007 / Sunius simoni (Quedenfeldt), det. V. Assing 2007" (HNHM). Paralectotypes: 3♀♀: same data as lectotype (HNHM, NHMW). For additional paralectotypes see section on *S. ovaliceps*.
*L. nitida*: see section on *S. ovaliceps*.

Comments: The original description of *Lithocharis nitida* is based on syntypes from Tanger, Tetuan and Arsila in Morocco (QUEDENFELDT 1881). ADORNO & ZANETTI (2003) give an outline of the confusing taxonomic history of this species, designate a lectotype from Tanger, and provide illustrations of its aedeagus. It is identical to that of the lectotype of *S. simoni*.

*Lithocharis simoni* was described from an unspecified number of syntypes from "Algeciras in Andalusia" (QUEDENFELDT 1881). The name has had a confusing taxonomic history; for details see ADORNO & ZANETTI (2003). COIFFAIT (1961) interpreted the name *Lithocharis simoni* based on material from the Sierra de las Nieves. Several years later he studied "une série de syntypes" of *L. simoni* (without mentioning the depository), realised that they referred to a different species, presented illustrations of the aedeagus, and named the species from the Sierra de las Nieves *Hypomedon confusum* [sic] (COIFFAIT 1970). ADORNO & ZANETTI (2003) were unable to locate the syntype series studied by Coiffait.

In the collections of the HNHM, six syntypes from the type locality and collected by Simon were located. Three of them – a male and two females – are conspecific with *S. ovaliceps* and the other three – a male and two females – are consistent with the interpretation of *S. simoni* by COIFFAIT (1970, 1984). Since Coiffait´s identification labels are attached to the former three specimens and the two males in the type series were dissected, it is likely that all the syntypes in the collections of the HNHM were studied by Coiffait and that it is the second male that Coiffait based his interpretation of *S. simoni* on. This male is here designated as the lectotype, not only because the key by COIFFAIT (1984) has formed the main basis for the identication of Mediterranean *Sunius* for more

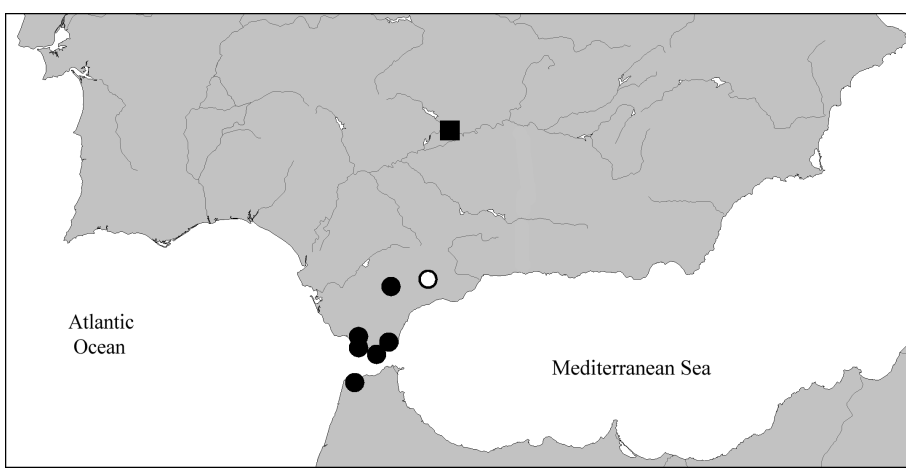
than two decades, but also because they are in better agreement with the original description ("capite thoraceque dense et fortius punctatis"... "Long. abdomine excepto 1 1/2 mm").

Additional material examined: Spain: Andalucía: 2 exs., Cádiz, Bolonia [36°05'N, 05°47'W], III.1993, leg. Poot (cAss); 1 ex., same data, but IV.1990 (cWun); 1 ex., Cádiz, Tarifa, IV.1992, leg. Poot (cAss); 2 exs., same data, but III.1991 (cAss, cWun); 1 ex., same data, but IV.1990 (cWun); 3 exs., same data, but I.1997 (cWun); 1 ex., Cádiz, Tahivilla, 18.XII.1995, leg. Poot (cWun); 1 ♀, Málaga, Cortez de la Frontera, 36°37'N, 05°25'W, 700 m, oak forest, 19.II.2000, leg. Meybohm (cAss); 2 exs., "Andalusia", leg. Reitter (NHMW); 2 exs., "Hispania" (HNHM).

Diagnosis: External morphology similar to that of *S. brachypterus*, but body slightly larger. Coloration of abdomen only slightly darker than that of forebody, reddish to brown (not blackish). Puncturation of head and pronotum conspicuously dense and coarse; interstices on head narrower than diameter of punctures (except for small median dorsal area).

♂: sternite VII with weakly concave to truncate posterior margin, pubescence unmodified; sternite VIII with weakly elevated tubercle with somewhat denser pubescence, posterior excision very shallow; aedeagus of similar shape as in *S. catalonicus*, internal sac with short row of few short and rather weakly sclerotised spines; for illustrations see ADORNO & ZANETTI (2003).

Distribution and bionomics: The species is endemic to the extreme south of Spain and northern Morocco (Map 17). The material examined was collected in winter and early spring, from December through April.




**Map 17**: Distributions of species of the *S. seminiger* group in southern Spain and northern Morocco: *Sunius simoni* (QUEDENFELDT) (filled circles), *S. confusus* (COIFFAIT) (open circle), and *S. cordobanus* nov.sp. (square).

### 4.46. *Sunius confusus* (COIFFAIT 1970) (Map 17)

*Hypomedon simoni*: COIFFAIT 1961: 38 f.; misidentification.
*Hypomedon confusum* [sic] COIFFAIT 1970: 22.

M a t e r i a l e x a m i n e d : Spain: A n d a l u c í a : 7 exs., Sierra de las Nieves, 36°41'N, 05°01'W, 1700 m, near snow fields, 22.&26.II.2000, leg. Lompe & Meybohm (cAss).

C o m m e n t : *Hypomedon confusus* was – erroneously – made available as "n. nv.", i. e. a replacement name, for COIFFAIT´s (1961) misidentified *Sunius simoni*. The above material was collected at the type locality and is in perfect agreement with the illustrations provided by COIFFAIT (1961, 1984), so that it is doubtlessly conspecific with the type material.

D i a g n o s i s : External appearance similar to that of *S. simoni*, but body smaller and distinctly more slender; head with less dense coarse puncturation; pronotal puncturation coarser.

♂: sternite VII not distinctly modified; sternite VIII with distinctive, obliquely projecting median process; aedeagus of distinctive morphology, for illustrations see COIFFAIT (1961, 1984).

D i s t r i b u t i o n a n d b i o n o m i c s : The known distribution is confined to the Sierra de las Nieves in Andalucía (Map 17). The examined specimens were collected near snowfields at an altitude of 1700 m in February.

### 4.47. *Sunius cordobanus* nov.sp. (Figs. 100-102, Map 17)

T y p e m a t e r i a l : Holotype ♂: "Sr. Cordoba, Ehlers / aveyronensis Mathan / Eplsh. vid. / D.E.I. coll. von Heyden / coll. DEI Müncheberg / Holotypus ♂ *Sunius cordobanus* sp. n. det. V. Assing" (DEI). Paratypes: 2♀♀: "Prov. Cordoba, Sierra de Cordoba, 9.IV.1959, Cl. Besuchet" (MHNG, cAss).

D e s c r i p t i o n : In external characters (size, proportions, coloration) highly similar to *S. simoni*, but puncturation of head sparser and that of pronotum relatively coarser, as coarse as that of head.

♂: sternite VII with weakly modified pubescnce and with weakly concave posterior margin; sternite VIII in the middle with slightly denser pubescence, posterior excision of moderate size (Fig. 102); aedeagus shaped as in Figs 100-101, without sclerotised internal structures.

E t y m o l o g y : The name (adjective) is derived from the name of the moutain range where the holotype was collected.

C o m p a r a t i v e n o t e s : From *S. simoni*, the most similar and geographically closest congener of the *S. seminiger* group, the new species is readily distinguished especially by the coarser puncturation of the pronotum and by the morphology of the aedeagus, which is larger (ca. 0.4 mm; *S. simoni*: 0.35 mm), has a much longer and more slender ventral process (both in lateral and in ventral view), and which lacks sclerotised spines in the internal sac. From all other brachypterous species occurring in Andalucía, it is separated especially by the coarser and denser puncturation of the head and pronotum, the broader pronotum, as well as by the different male primary and secondary sexual characters.

D i s t r i b u t i o n a n d b i o n o m i c s : The species is known only from the Sierra de Córdoba, an outlier of the Sierra Morena to the north of the town of Córdoba, Andalucía (Map 17). Bionomic data are unknown.

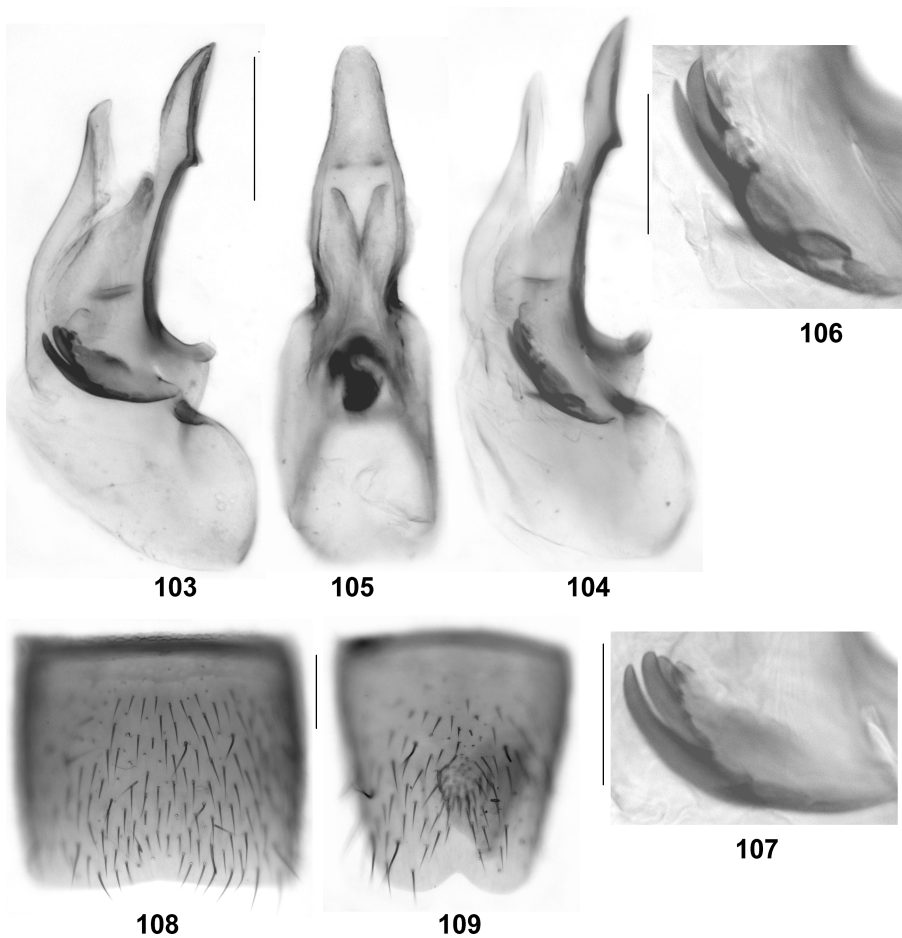
### 4.48. *Sunius tuniseus* (COIFFAIT 1973) (Figs 103-109, Map 18)

*Hypomedon tuniseum* [sic] COIFFAIT 1973: 117.

Type material examined: Holotype ♂: "Mactar, Tunisie, Col. Vauloger / Holotype / Hypomedon tuniseus H. Coiffait 1973 / Sunius tuniseus (Coiffait) det. V. Assing 2007" (MNHNP). Paratypes: 1 ♀: "Tunisie, Mactar / Allotype" (MNHNP). For an additional paratype see type material of *Sunius discretus* nov.sp.

Comment: The original description is based on a holotype male and two female paratypes from "Moktar, Tunisie" and two paratypes from "Le Kef" (COIFFAIT 1973); the type series is composed of two species; the type specimens from the latter locality refer to the following species.

Additional material examined: Tunisia: 1 ex., El Ksour env., 19.III.1984, leg. Meybohm (cAss).




**Figs 103-109**: *Sunius tuniseus* (COIFFAIT) (104, 106: holotype): (**103-105**) aedeagus in lateral and in ventral view; (**106-107**) internal structures of aedeagus in lateral view; (**108**) male sternite VII; (**109**) male sternite VIII. Scale bars: 103-105, 108-109: 0.1 mm; 106-107: 0.05 mm.

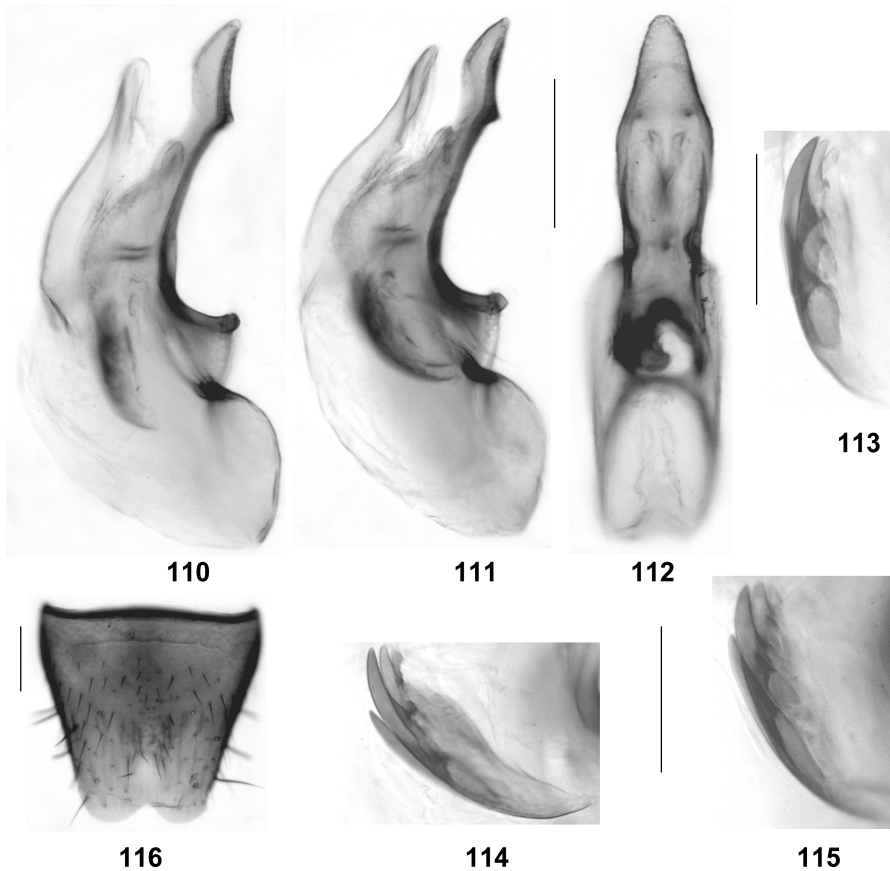
D i a g n o s i s : Body bicoloured, with the forebody reddish and the abdomen blackish. Reliably distinguished from other small micropterous congeners occurring in North Africa only by the male primary and secondary sexual characters:

♂: sternite VII with weakly concave posterior margin, pubescence unmodified (Fig. 108); sternite VIII with rather broad and not very deep posterior excision, and with pubescent tubercle (Fig. 109); aedeagus as in Figs 103-107, with rather variable row of distinctly sclerotised internal spines.

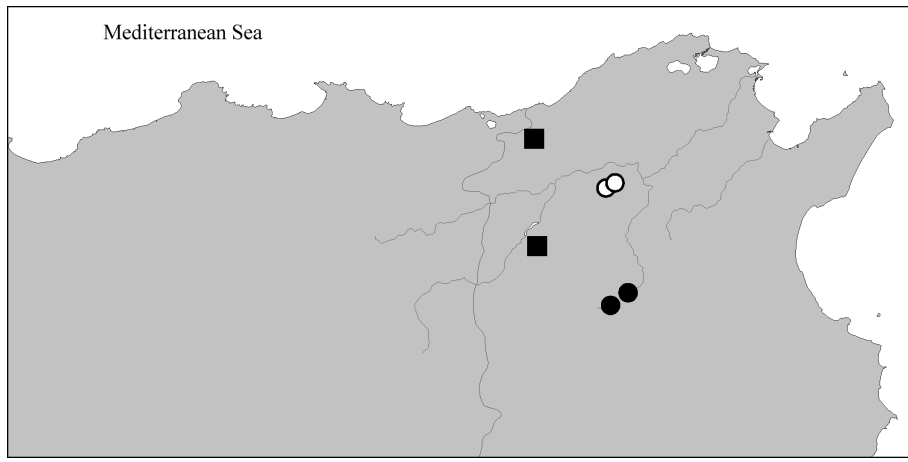
D i s t r i b u t i o n : The known distribution of this species is confined to Makthar and El Ksour in the Dorsale range in Tunisia (Map 18).

### 4.49. *Sunius discretus* nov.sp. (Figs. 110-116, Map 18)

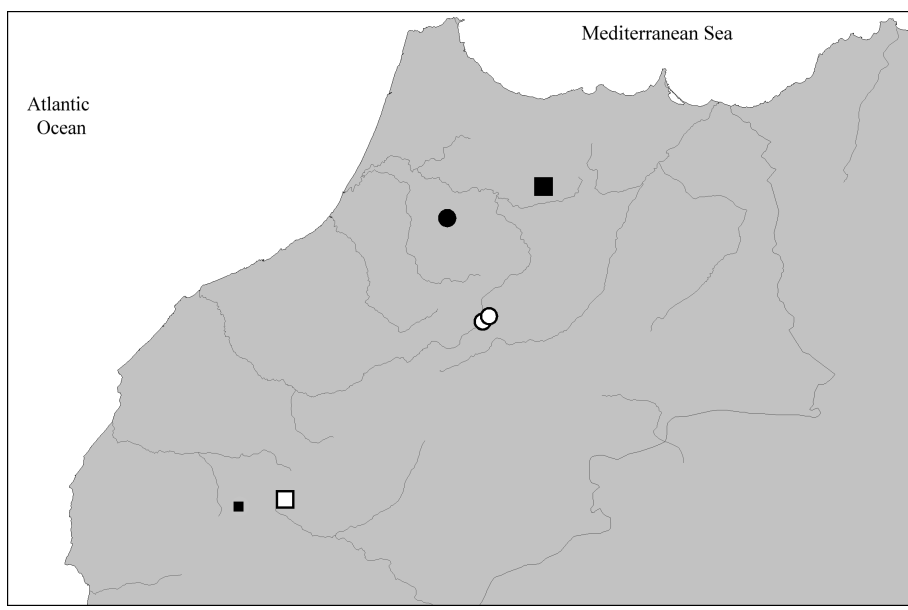
*Hypomedon tuniseus*: COIFFAIT (1973: 117); partim.




**Figs 110-116**: *Sunius discretus* nov.sp.: (**110-112**) aedeagus in lateral and in ventral view; (**113-115**) internal structures of aedeagus in lateral view; (**116**) male sternite VIII. Scale bars: 110-112, 116: 0.1 mm; 113-115: 0.05 mm.




**Map 18**: Distributions of species of the *S. seminiger* group in Tunisia: *Sunius tuniseus* (COIFFAIT) (filled circles), *S. bihamatus* ASSING (open circles), and *S. discretus* nov.sp. (squares).




**Map 19**: Distributions of species of the *S. seminiger* group in Morocco: *Sunius gourvesi* (COIFFAIT) (filled circle), *S. atlasicus* (COIFFAIT) (open circles), *S. montanellus* (BORDONI) (open square), *S. fultus* ASSING (large filled square), and *S. hastatus* ASSING (small filled square).

Holotype ♂: "Tunis, Le Kef / O. Leonhard / Medon seminiger Fairm. / Holotypus ♂ Sunius *discretus* sp. n. det. V. Assing 2007" (DEI). Paratypes: 2 exs.: "Tunis, Le Kef / O. Leonhard" (DEI, cAss); 1 ex.: "Tunisia [8], 15 km N Le Kef, 36°15'09N, 8°34'29E, 410 m, roadside, under stones, 27.XII.2004, V. Assing" (cAss); 3 exs.: "Tunis, Le Kef" (DEI, cAss); 3 exs.: "Le Kef, Tunis" (SMNS, cAss); 1 ex.: "Tunis, Le Kef, 1912, Winkler [?]" (SMNS); 5 exs.: "T. Le Kef, 3-1934, Dr. Normand" (cTro); 3 exs.: "T. Le Kef, 2-1937, Dr. Normand" (cTro); 4 exs., "Le Kef, Dr.

Normand" (MHNG, cAss); 3 exs.: "Tun. Le Kef, 11-41, R. Demoflys" (cTro, cAss); 3 exs.: "Ain Drah., Tunisie" (MHNG, cAss); 1♂: "Tunisie, Le Kef, Dr. Normand / Paratype [of *Hypomedon tuniseus*]" (MNHNP).

Description: External morphology as in *S. tuniseus*; distinguished only by the male sexual characters:

♂: sternite VIII similar to that of *S. tuniseus*, with shallow posterior excision and pubescent tubercle (Fig. 116); aedeagus with apex of ventral process less slender in lateral view; internal sac with a distinctive row of rather long and distinctly sclerotised spines (Figs 110-115).

Etymology: The name (Latin, adjective: distinguished, separate) refers to the fact that this species was previously confounded with *S. tuniseus*.

Comparative notes: The species is distinguished from *S. tuniseus*, its most similar congener in Tunisia, especially by the morphology of the ventral process of the aedeagus (stouter and shorter apex) and by the shorter spines in the internal sac. From *S. bihamatus*, the only other small micropterous representative of the genus known from Tunisia, it is readily separated by the paler average coloration of the forebody, the shallower posterior excision of the male sternite VIII, the presence of a tubercle on the male sternite VIII (in *S. bihamatus* unmodified), and the completely different morphology of the aedeagus. For illustrations of the male primary and secondary sexual characters of *S. bihamatus* see ASSING (2005b).

Distribution and bionomics: The type specimens were collected in Le Kef and Aïn Draham, northwestern Tunisia (Map 18), in Februar, March, November, and December.

### 4.50. *Sunius gourvesi* (COIFFAIT 1981) (Figs 117-121, Map 19)

*Hypomedon gourvesi* COIFFAIT 1981a: 54.

Type material examined: Holotype ♂: "Maroc, 10.2.80, Jbel Zerhoun, N. Meknes, Gourvés coll. / Holotype / Hypomedon tuniseus H. Coiffait 1981" (MNHNP).

Comment: The original description is based on a holotype male from "Maroc, Jbel Zerhoun (N. de Meknès)" (COIFFAIT 1981a).

Additional material examined: Morocco: 1 ex., N Meknès, Jbel Zerhoun, 28.XII.1983 (cTro).

Diagnosis: Based on the male primary and secondary sexual characters (weakly modified sternite VII, sternite VIII with tubercle, shape and internal structures of aedeagus), the species is closely related to the similar *S. tuniseus* and allied species.

External morphology as in *S. tuniseus*, except for the slightly broader elytra.

♂: sternite VII with weakly concave posterior margin, pubescence not modified; sternite VIII with keel-like oblong tubercle of distinctive shape (Figs 120-121); aedeagus rather stout, with apically broadly rounded ventral process (ventral view), and with row of rather massive sclerotised spines in internal sac (Figs 117-119).

Comparative notes: As is suggested by the similar shape and internal structures of the aedeagus and the similarly derived morphology of the male sternite VIII, *S. gourvesi* is a close relative of *S. fultus* ASSING 2003 from Taza, Morocco, proba-

bly its sister species. For illustrations of the male sexual characters of *S. fultus* see ASSING (2003b).

D i s t r i b u t i o n : *Sunius gourvesi* has become known only from the type locality, the Jebel Zerhoun [34°01'N, 5°29'W] in Morocco (Map 19).

### 4.51. *Sunius atlasicus* (COIFFAIT 1970) (Figs 122-124, Map 19)

*Hypomedon atlasicum* [sic] COIFFAIT 1970: 725.

T y p e m a t e r i a l e x a m i n e d : Holotype ♂: "Maroc, 22.3.68, Col du Zad, H. Coiffait / Holotype / Hypomedon atlasicus Coiff., det. H. Coiffait 1968 / Sunius atlasicus (Coiffait) det. V. Assing 2007" (MNHNP). Paratypes: 2♀♀ [1 labelled as allotype, 1 labelled as paratype]: same data as holotype (MNHNP).

C o m m e n t : The original description is based on a holotype male and 15 paratypes from "Col du Zad, Moyen Atlas Marocain" and one paratype from "Aguelmane Sidi Ali" [33°04'N, 05°00'W] (COIFFAIT 1970).

D i a g n o s i s : External morphology as in *S. tuniseus*, except for the slightly larger eyes.

♂: sternite VII with weakly concave posterior margin, pubescence not modified; sternite VIII as in Fig. 124, with distinct pubescent tubercle; aedeagus as in Figs 122-123.

D i s t r i b u t i o n : The species has become known only from two localities in the Moyen Atlas, Morocco (Map 19).

### 4.52. *Sunius montanellus* (BORDONI 1980) (Figs 125-127, Map 19)

*Hypomedon montanellus* BORDONI 1980c: 216.

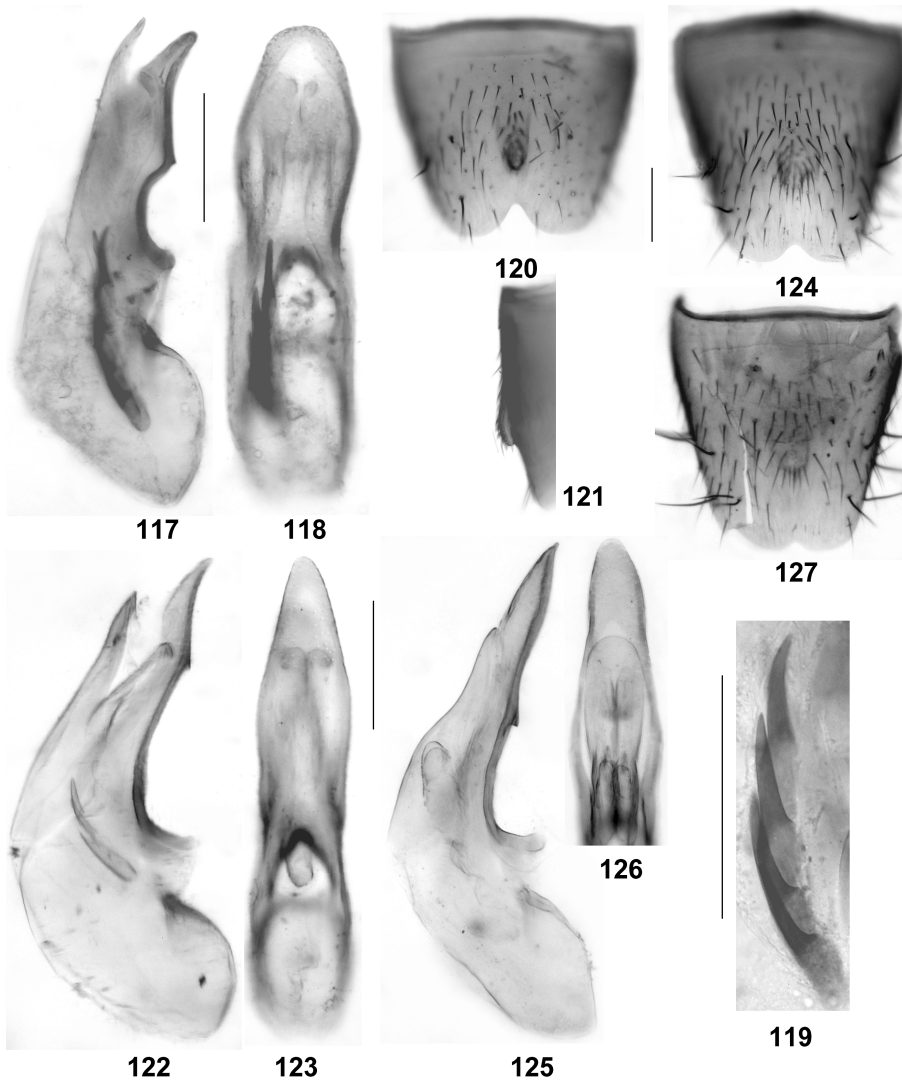
T y p e m a t e r i a l e x a m i n e d : Holotype ♂: "Maroc - Ht. Atlas, Tizi-n-Tichka (1600 m), 1.V.60, Cl. Besuchet / Holotypus / Hypomedon montanellus n. sp. det. Bordoni 1980 / Sunius montanellus (Bordoni) det. V. Assing 2007" (MHNG).

C o m m e n t : The original description is based on a single holotype specimen from "Marocco, M.te [sic; recte: H.te] Atlas, Tizi-m-Tichka" (BORDONI 1980c).

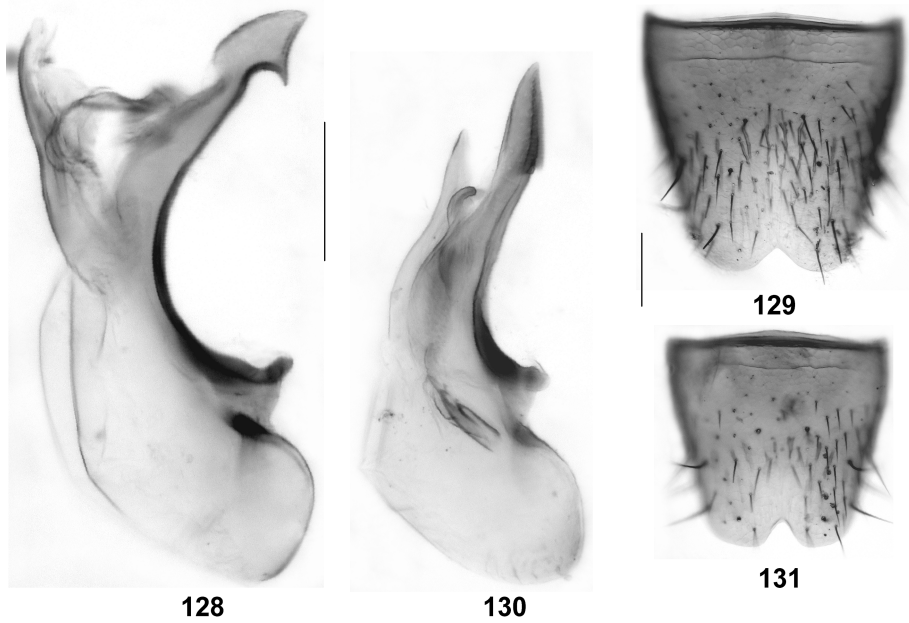
D i a g n o s i s : External morphology as in *S. tuniseus*, but whole body of uniformly yellowish coloration, abdomen not distinctly darker than forebody, and eyes very small, only about 1/4 the length of postocular region in dorsal view.

♂: sternite VII with weakly concave posterior margin, pubescence unmodified; sternite VIII as in Fig. 127, with pubescent tubercle, posterior excision very shallow; aedeagus of highly distinctive morphology with long, slender, and straight ventral process, without sclerotised internal structures (Figs 125-126).

D i s t r i b u t i o n : The species has become known only from the type locality in the Haut Atlas, Morocco (Map 19).




**Figs 117-127**: *Sunius gourvesi* (COIFFAIT), holotype (**117-121**), *S. atlasicus* (COIFFAIT), holotype (**122-124**), and *S. montanellus* (BORDONI), holotype (**125-127**): (**117-118, 122-123, 125**) aedeagus in lateral and in ventral view; (**119**) internal structures of aedeagus in lateral view; (**120, 124, 127**) male sternite VIII in ventral view; (**121**) male sternite VIII in lateral view; (**126**) ventral process of aedeagus in ventral view. Scale bars: 0.1 mm.




**Figs 128-131**: *Sunius berberus* (COIFFAIT) (**128-129**) and *S. seminiger* (FAIRMAIRE) (**130-131**): (**128, 130**) aedeagus in lateral view; (**129, 131**) male sternite VIII. Scale bars: 0.1 mm.

### 4.53. *Sunius berberus* (COIFFAIT 1961) (Figs 128-129, Map 20)

*Hypomedon berberus* COIFFAIT 1961: 39.

Type material examined: Holotype ♂ [aedeagus missing]: "Hippone, 12.17 / Holotype / Hypomedon berberus Coiff., det. H. Coiffait 1961 / Sunius berberus (Coiffait) det. V. Assing 2007" (MNHNP). Paratypes: 1♂, 2♀♀ [1♀ labelled as allotype]: same data as holotype (MNHNP); 1♀: "Bone, 12.17, 231" (MNHNP).

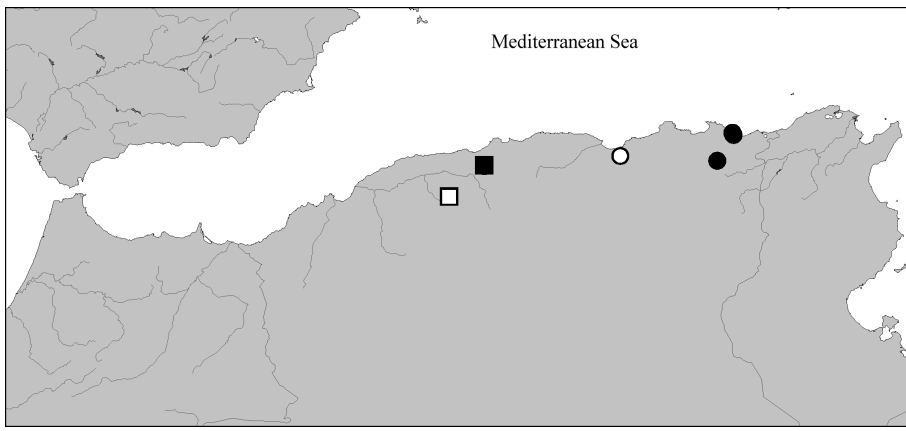
Additional material examined: Algeria: 1 ex., Annaba ["Bona"], leg. Desbrock (DEI); 1 ex., Guelma, leg. Fauvel (cAss).

Comment: The original description is based on a holotype male and an unspecified number of paratypes from "Hippone" and "Bône" (COIFFAIT 1961). The aedeagus of the holotype is missing.

Diagnosis: The highly distinctive aedeagus of *S. berberus* somewhat resembles that of *S. confusus* from southern Spain. From this species it is distinguished by slightly larger body size, a less slender head (1.00-1.05 times as long as wide, in *S. confusus* distinctly oblong), slightly larger eyes, a less slender pronotum (1.00-1.05 times as long as wide, in *S. confusus* distinctly oblong), somewhat darker coloration (reddish brown, in *S. confusus* reddish yellow), and the male sexual characters.

♂: sternite VII with weakly concave posterior margin, pubescence not modified; sternite VIII with rather broad, but not very deep posterior excision, otherwise unmodified (in *S. confusus* with distinctive obliquely projecting process); aedeagus of highly distinctive shape, without sclerotised internal structures (see figures in COIFFAIT 1961, 1984).

D i s t r i b u t i o n : The known distributon is confined to the environs of Annaba in the northeast of Algeria (Map 20).




**Map 20**: Distributions of species of the *S. seminiger* group in Algeria: *Sunius berberus* (COIFFAIT) (filled circles), *S. baboricus* nov.sp. (open circle), *S. mouzaianus* nov.sp. (filled square), *S. vaulogeri* (COIFFAIT) (open square), and *S. rectus* nov.sp. (open square).

**4.54. *Sunius rectus* nov.sp.** (Figs. 132-134, Map 20)

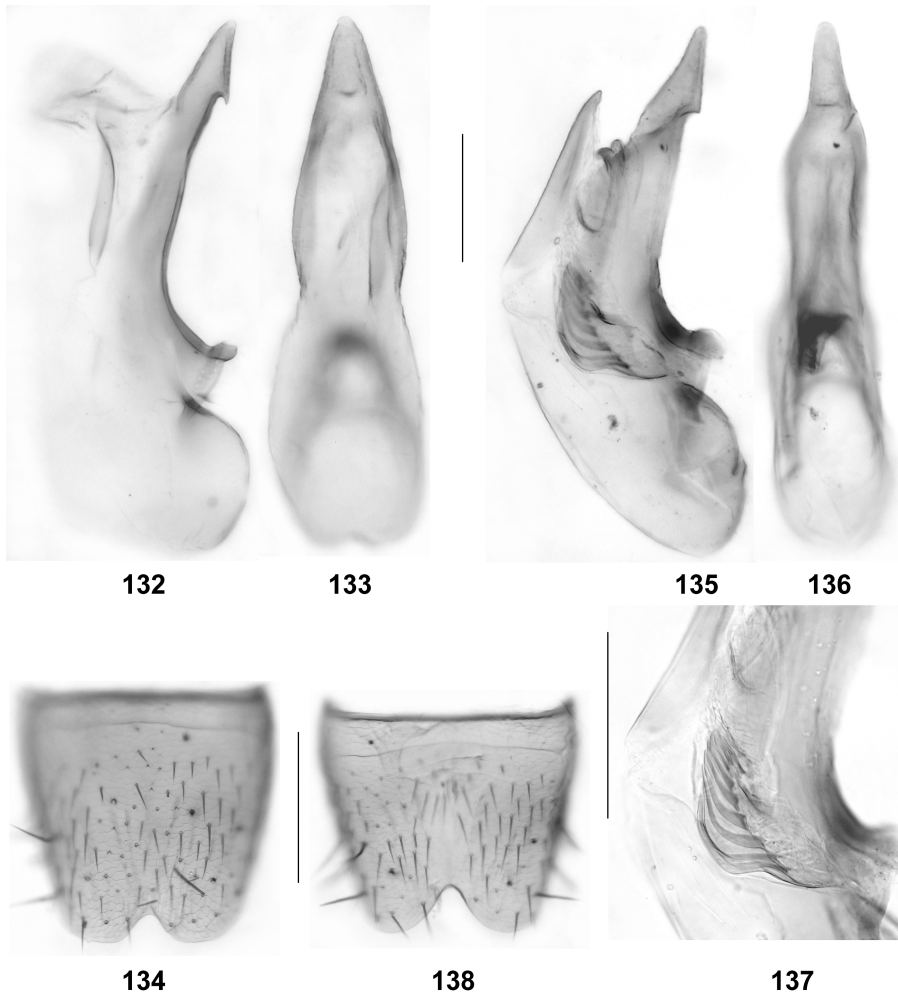
T y p e m a t e r i a l : Holotype ♂: "Prov. d'Alger, Teniet el Haad, de Vauloger / seminigra Fair. C. S. / Hypomedon seminiger Fairm., G. Fagel det. 1962 / Holotypus ♂ *Sunius rectus* sp. n. det. V. Assing 2007" (MNHUB).

D e s c r i p t i o n : Small species, 2.6 mm. External appearance (coloration, size, and proportions) as in *S. tuniseus* and allied species; distinguished only by the male sexual characters:

♂: sternite VIII oblong, with rather shallow posterior excision, otherwise unmodified (Fig. 134); aedeagus shaped as in Figs 132-133, ventral process in lateral aspect conspicuously straight, subapically distinctly dentate; internal sac without sclerotised spines.

E t y m o l o g y : The name (Latin, adjective: straight) refers to the shape of the ventral process of the aedeagus (lateral view).

C o m p a r a t i v e n o t e s : The species is distinguished from other small-sized, brachypterous and pale-coloured congeners from Algeria especially by the shape of the aedeagus, by the absence of internal structures, and by the morphology of the male sternite VIII. For illustrations of the completely different aedeagus of *S. vaulogeri*, which, too, was found near Theniet el Had by the same collector, see Figs 135-138. From *S. mouzaianus*, whose ventral process of the aedeagus is of similar shape in lateral view, *S. rectus* is separated by the less deep posterior excision and the denser pubescence of the male sternite VIII, the different shape of the ventral aspect of the ventral process, as well as by the absence of sclerotised internal structures; for illustrations of the male sexual characters of *S. mouzaianus* see Figs 139-142.




**Figs 132-138**: *Sunius rectus* nov.sp. (**132-134**) and *S. vaulogeri* (COIFFAIT) (**135-138**): (**132-133, 135-136**) aedeagus in lateral and in ventral view; (**134, 138**) male sternite VIII; (**137**) internal structures of aedeagus in lateral view. Scale bars: 134, 138: 0.2 mm; 132-133, 135-137: 0.1 mm.

Distribution and bionomics: The type locality is situated in the environs of Theniet el Had, central northern Algeria, some 150 km to the southwest of Algier (Map 20). Bionomic data are not available.

### 4.55. *Sunius vaulogeri* (COIFFAIT 1973) (Figs. 135-138, Map 20)

*Hypomedon vaulogeri* COIFFAIT 1973: 118.
Holotype ♂: "Algeria, Teniet el Had, de Vauloger / Holotype / Hypomedon vaulogeri Coiff., H. Coiffait det. 1973 / Sunius vaulogeri (Coiffait) det. V. Assing 2007" (MNHNP).

Comment: The original description is based on a male holotype and two female paratypes from "Teniet el Had, Algérie" (COIFFAIT 1973). The illustrations of the aedeagus in COIFFAIT (1973, 1984) are highly misleading.

Additional material examined: Algeria: 3 exs., "Oran" (DEI, cAss); 1♀ [identification tentative], Oran, Tianet (HNHM).

Diagnosis: Small species, 2.5-2.7 mm. External appearance (coloration, size, and proportions) as in *S. tuniseus* and allied species; distinguished only by the male sexual characters:

♂: sternite VIII with deep posterior excision, otherwise unmodified (Fig. 138); aedeagus shaped as in Figs 135-136, apex of ventral process very slender in ventral view; internal sac with a distinctive comb-like row of about 9 weakly sclerotised curved spines (Fig. 137).

Comparative notes: The species is distinguished from other small-sized, micropterous and pale-coloured congeners from Algeria by the morphology of the male sternite VIII, by the shape of the aedeagus, and especially by the distinctive internal structures.

Distribution and bionomics: The type locality is situated some 150 km to the southwest of Algier (Map 20); it is identical to that of *S. rectus*. The exact locality of the additional material is doubtful; in view of the considerable distance from the type locality, it seems highly unlikely that it refers to the town of Oran. Bionomic data are not available.

### 4.56. *Sunius mouzaianus* nov.sp. (Figs. 139-142, Map 20)

Type material: Holotype ♂: "Algier / Medon aveyronensis Math. Coll. Reitter / Holotypus ♂ *Sunius mouzaianus* sp. n. det. V. Assing 2007" (HNHM). Paratypes: 1♂ [without head], 2♀♀: "Massif des Mouzaia / Hypomedon seminiger / Coll. P. Griveau MHNG - 2007 (MHNG, cAss).

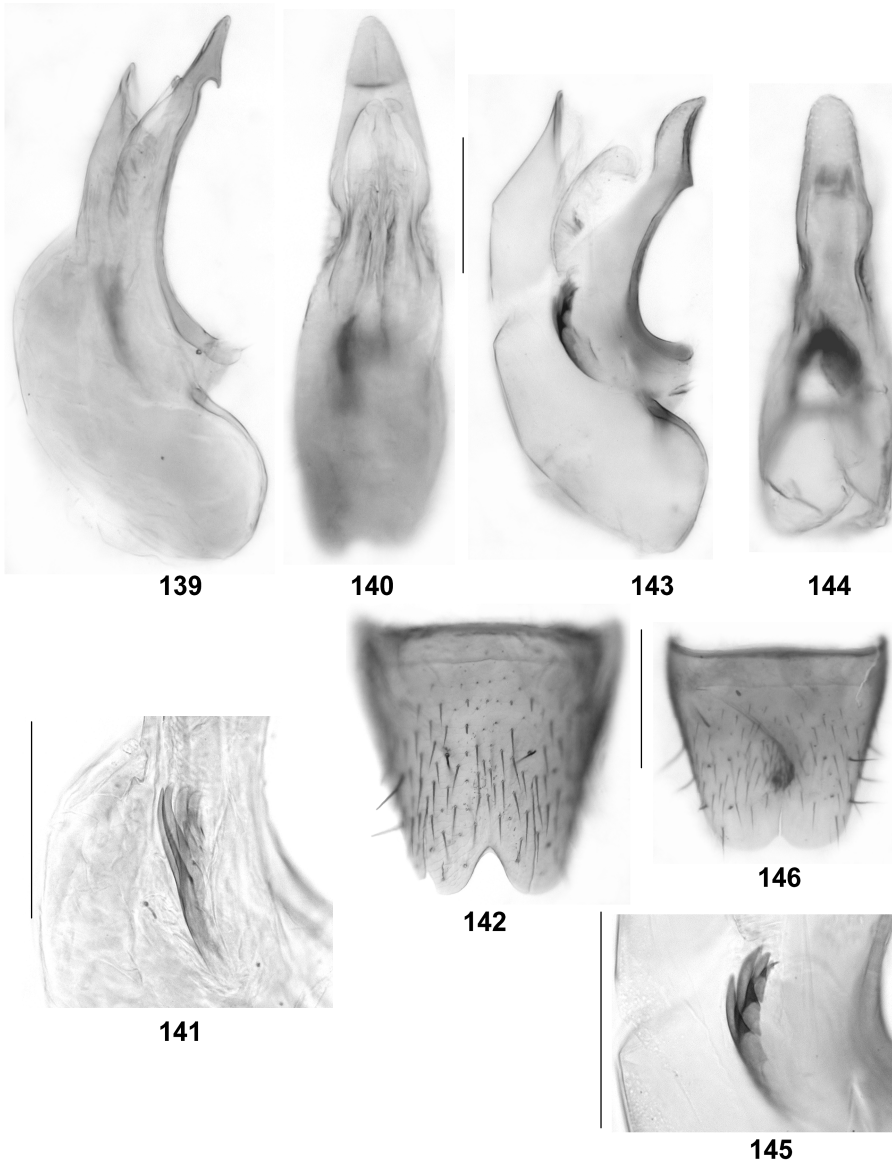
Description: Small species, 2.6-2.8 mm. External appearance (coloration, size, and proportions) as in *S. tuniseus* and allied species, but head somewhat more slender, approximately 1.05 times as long as wide, only indistinctly (<1.05 ×) wider than pronotum, not dilated in posterior half, and lateral margins weakly convex. Pronotum and elytra somewhat depressed (i. e. less convex in cross-section).

♂: sternite VIII oblong, with deep and narrow posterior excision, otherwise unmodified (Fig. 142); aedeagus shaped as in Figs 139-140, apex slender, long, and subapically distinctly dentate; internal sac with 4 moderately sclerotised slender spines of different lengths (Fig. 141).

Etymology: The name (Latin, adjective) refers to the locality where the paratypes (possibly also the holotype) were collected.

Comparative notes: The species is distinguished from other small-sized, micropterous and pale-coloured congeners from Algeria especially by the shape of the aedeagus and its internal structures, and by the morphology of the male sternite VIII. From most species, it is additionally separated by the shape of the head.

D i s t r i b u t i o n a n d b i o n o m i c s : The paratypes – and probably also the holotype – were collected in the Djebel Mouzaïa [36°23', 02°44'E], to the southwest of Blida, Algeria (Map 20). Bionomic data are not available.




**Figs 139-146**: *Sunius mouzaianus* nov.sp. (**139-142**) and *S. baboricus* nov.sp. (**143-146**): (**139-140, 143-144**) aedeagus in lateral and in ventral view; (**141, 145**) internal structures of aedeagus in lateral view; (**142, 146**) male sternite VIII. Scale bars: 142, 146: 0.2 mm; 139-141, 143-145: 0.1 mm.

**4.57. *Sunius baboricus* nov.sp.** (Figs. 143-146, Map 20)

T y p e m a t e r i a l : Holotype ♂: "Mt-Babor, Algérie, A. Thery / coll. Kraatz / coll. DEI Müncheberg / Holotypus ♂ *Sunius baboricus* sp. n. det. V. Assing 2007" (DEI). Paratypes: 1♀: "Mt-Babor, Algérie, A. Thery / Medon seminiger Frm. / H. seminiger Frm. Gallia mer." (MNHUB); 1♂: "Mt-Babor, Algérie, A. Thery / Medon seminiger A. Thery vid. / coll. Kraatz" (cAss); 4 exs.: "Djebel Babor, Algérie / ex coll Tempère, ex coll. Giraud / Hypomedon seminiger Fairm. H. Coiffait det. 1969" (MHNG, cAss); 1♂: "D. Babor, Algérie (Vauloger) / Medon seminiger / Hypomedon seminiger / Coll. P. Griveau, MHNG - 2007" (MHNG).

D e s c r i p t i o n : Small species, 2.5-2.7 mm. External appearance (coloration, size, and proportions) as in *S. tuniseus* and allied species; distinguished only by the male sexual characters:

♂: sternite VIII weakly transverse, with densely pubescent median tubercle and with small posterior excision (Fig. 146); aedeagus of similar general morphology as in *S. seminiger* and *S. brachypterus*, but apical part of ventral process shorter and distinctly concave in lateral view; apex of ventral process rounded (not acute) in ventral view (Figs 143-144); internal sac with four distinctly sclerotised short and stout spines (Fig. 145).

E t y m o l o g y : The name (Latin, adjective) refers to the Djebel Ta Babor, the mountain where the species was discovered.

C o m p a r a t i v e n o t e s : The species is distinguished from other small-sized, brachypterous and pale-coloured congeners from Algeria especially by the morphology of the aedeagus, including its internal structures, and by the morphology of the male sternite VIII (minute posterior excision, median tubercle).

C o m m e n t : COIFFAIT (1961, 1984) reports *S. seminiger* from the Djebel Ta Babor. However, his interpretation of the species is clearly erroneous and apparently refers to a different, probably undescribed species. Based on his illustrations of the aedeagus and the fact that it lacks a tubercle on the male sternite VIII, there is no doubt that it is conspecific with neither *S. seminiger* nor *S. baboricus*.

D i s t r i b u t i o n a n d b i o n o m i c s : The type locality is situated in the Djebel Ta Babor [= Massif des Babors, 36°32'N, 5°28'E], Petite Kabylie, in the east of northern Algeria (Map 20). Bionomic data are not available.

**4.58. *Sunius puglianus* (COIFFAIT 1961)** (Map 21)

*Hypomedon puglianus* COIFFAIT 1961: 38.

M a t e r i a l e x a m i n e d : Italy: P u g l i a : 1 ex., Taranto, Circ. Mar Piccolo, 5.I.1992, leg. Montemurro (cAss); 1 ex., same data, but 27.XII.1992 (cZan); 1 ex., same data, but 26.XII.1985 (cZan); 1 ex., Taranto env., 8.XII.1993 leg. Montemurro (cZan); 14 exs., same data, but 20.I.1996 (cZan, cAss); 1 ex., same data, but 13.XII.1998 (cZan); 4 exs., Francavilla Fontana (BR), 5.II.1995, leg. Montemurro (cZan); 1 ex., road Noicattaro-Bari (BA), pasture, IV.1997, leg. Angelini (cSch); 1 ex., Gioia del Colle, 18.III.1944, leg. Focarile (cZan).

C o m m e n t : The original description is based on a holotype male and an unspecified number of paratypes from "Italie, Pouilles, Gioia del Colle" (COIFFAIT 1961).

D i a g n o s i s : External morphology similar to that of other species of the *S. tuniseus* group.

♂: sternite VII not distinctly modified; sternite VIII near posterior excision with rather large and distinctly elevated median tubercle furnished with dense stout pubescence; aedeagus of rather stout shape, with conspicuously broad ventral process in ventral view

and with row of distinctly sclerotised spines in internal sac. For illustrations of the male primary and secondary sexual characters see ADORNO & ZANETTI (2003).


**Map 21**: Distributions of species of the *S. seminiger* group in Italy: *Sunius puglianus* (COIFFAIT) (filled circles) and *S. sardus* nov.sp. (open circles).

D i s t r i b u t i o n : The known distribution of this species is confined to Puglia in southern Italy (Map 21; ADORNO & ZANETTI 2003).

### 4.59. *Sunius sardus* nov.sp. (Figs. 147-153, Map 21)

T y p e m a t e r i a l : Holotype ♂: "Sardinien, Asuni, Krausse / Holotypus ♂ *Sunius sardus* sp. n. det. V. Assing 2007" (MNHUB). Paratypes: 1♀: same data as holotype (cAss); 2♂♂: "Sardinia, Assuni, leg. Dr. Krausse, Coll. O. Leonhard / seminiger" (DEI, cAss); 1♀: "Lav. Oliena, X.61, Sard. / sardous Dod. / Coll. J. Ochs in Coll. M. Curti, MHNG-1991" (MHNG).

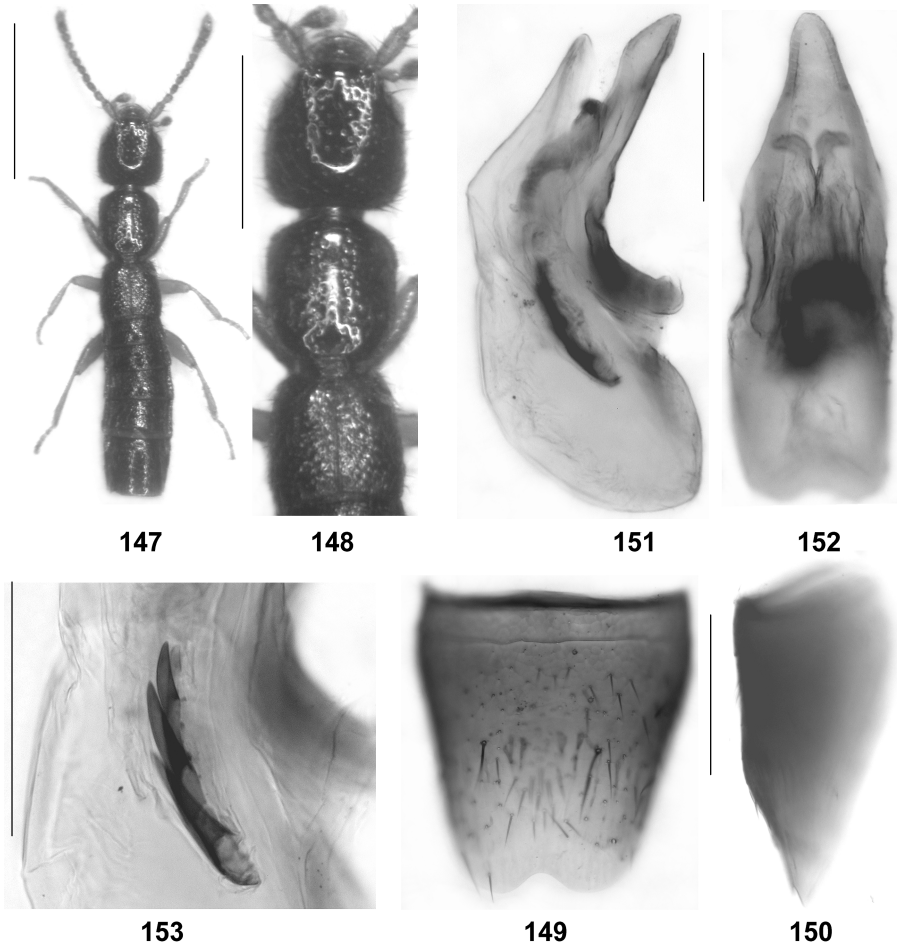
D e s c r i p t i o n : Small species, 2.5-2.7 mm. External appearance as in *S. tuniseus* and allied species (Figs 147-148), but of somewhat darker coloration; forebody reddish brown to dark brown, abdomen blackish.

♂: sternite VIII oblong, median area weakly elevated, but without dense pubescence (Figs 149-150), posterior incision shallow; aedeagus as in Figs 151-152; internal sac with four distinctly sclerotised stout spines (Fig. 153).

E t y m o l o g y : The name (Latin, adjective) refers to the fact that the species is probably endemic to Sardinia.

C o m p a r a t i v e n o t e s : The species is distinguished from other small micropterous Mediterranean congeners especially by the morphology of the aedeagus and by the morphology of the male sternite VIII, from most species also by the darker coloration. The only other small Italian *Sunius* species without a palisade fringe at the posterior margin of tergite VII are *S. puglianus* from Puglia and *S. georgii* ADORNO & ZANETTI from Sicily. For detailed illustrations of the male primary and secondary sexual characters of these species see ADORNO & ZANETTI (2003).

Distribution and bionomics: The known distribution is confined to Sardinia (Map 21), where the species is probably endemic. One of the types was collected in October; additional bionomic data are not available.




**Figs 147-153**: *Sunius sardus* nov.sp.: (**147**) habitus of holotype; (**148**) forebody of holotype; (**149-150**) male sternite VIII in ventral and in lateral view; (**151-152**) aedeagus in lateral and in ventral view; (**153**) internal structures of aedeagus in lateral view. Scale bars: 147: 1.0 mm; 148: 0.5 mm; 149-150: 0.2 mm; 151-153: 0.1 mm.

### 4.60. *Sunius fokisensis* ASSING & WUNDERLE 2001 (Map 7)

Type material examined: see ASSING & WUNDERLE (2001).

Additional material examined: Greece: mainland: 15 ex., 25 km NE Lamia, Oros Othris, 39°04'N, 22°44'E, 980 m, meadow, 3.IV.2001, leg. Assing (cAss); 4 exs., Oros Vardousia, ca. 30 km SW Lamia, S Marmara, Agias Paraskeis, 38°47'N, 22°07'E, 1270 m, meadow, 5.IV.2001, leg. Assing (cAss); 1 ex., ca. 25 km SSW Lamia, near Kaloskopi, 38°42, 22°19'E, 1230 m, meadow, under stone, 6.IV.2001, leg. Assing (cAss); 6 exs., Fthiotis, SSE Lamia,

Oros Kallidromo, 38°44N, 22°32'E, 1250 m, N-slope, fir forest margin and meadow, 7.IV.2001, leg. Assing (cAss); 1 ex., Oros Kallidromo, 38°45'N, 22°30'E, 990 m, flooded meadow, under stones, 12.IV.2001, leg. Assing (cAss); 32 exs., Oros Iti, 38°49'N, 22°14'E, 1400 m, N-slope, subalpine meadow, under stones, 10.IV.2001, leg. Assing (cAss); 2 exs., Oros Iti, 38°49'N, 22°14'E, 1620 m, N-slope, fir forest with snow, sifted and under stones, 10.IV.2001, leg. Assing (cAss); 5 exs., Oros Iti, SE Kastania, 38°48'N, 22°15'E, 2010 m, under stones near snow, 6.V.1999, leg. Zerche (DEI, cAss); 2 exs., Evritania, Kaliakoúda range, 15 km S Karpenisi, 38°48'N, 21°46'E, 1400-1580 m, grassland with snow, 4.V.1999, leg. Zerche & Behne (DEI); 1 ex., N Karpenisi Timphristos range, ski resort, 38°56'N, 21°49'E, 1850 m, grassland with snow, 4.V.1999, leg. Zerche (DEI); 1 ex., Parnassos, S-slope, 1200 m, 11.X.2000, leg. Schmalfuss (SMNS). Pelopónnisos: 2 exs., Panahaiko, SE Ano Kastritsi, 38°15'N, 21°52'E, 1575 m, NW-slope, grassland with snow, 24.IV.1999, leg. Zerche (DEI, cAss); 1 ex., Panahaiko, above Ano Kastritsi, 38°16'N, 21°51'E, 900 m, under stones, 38.III.1997, leg. Zerche (DEI); 8 exs., Panahaiko, above Ano Kastritsi, 38°15'N, 21°52'E, 1550 m, grassland, under stones near snow, 30.III.2000, leg. Zerche & Behne (DEI, cAss); 4 exs., Panahaiko, NW Avriokampbos, 38°11'N, 21°54'E, 1325 m, 1.IV.2000, leg. Zerche & Behne (DEI).

Diagnosis: Reliably distinguished from other small species of the Mediterranean only by the male sexual characters:

♂: sternite VII at posterior margin with shallow median tubercle; sternite VIII with the usual posterior excision, otherwise unmodified; aedeagus as figured by ASSING & WUNDERLE (2001).

Distribution: The distribution of this species is confined to southern central Greece (Fokis, Fthiothis, Evritania) and to the northern Pelopónnisos, from where it is here reported for the first time (Map 7).

### 4.61. *Sunius menalonicus* nov.sp. (Figs. 154-159, Map 7)*

Type material: Holotype ♂: "Grecia nom. Arkadía, O. Ménalon, m. 1550, 26.VI.1998, Giachino & Vailati leg. / Holotypus ♂ *Sunius menalonicus* sp. n. det. V. Assing 2007" (cVai). Paratype ♂: same data as holotype (cAss).

Description: Small species, 2.7-3.0 mm. Facies as in Fig. 154. Coloration: forebody reddish yellow; abdomen pale reddish brown; legs and antennae dark yellowish.

Head approximately as long as wide or weakly oblong (length measured from anterior margin of clypeus); lateral margins behind eyes subparallel; puncturation coarse and well-defined, not very dense, interstices in lateral areas on average approximately as wide as or slightly narrower than diameter of punctures, in median dorsal region wider than diameter of punctures; microsculpture absent; eyes small, postocular region in dorsal view more than 3 times as long as eyes (Fig. 155).

Pronotum approximately 0.9 times as wide as head and 1.10-1.15 times as long as wide; puncturation similar to that of head, but somewhat denser; microsculpture absent (Fig. 155).

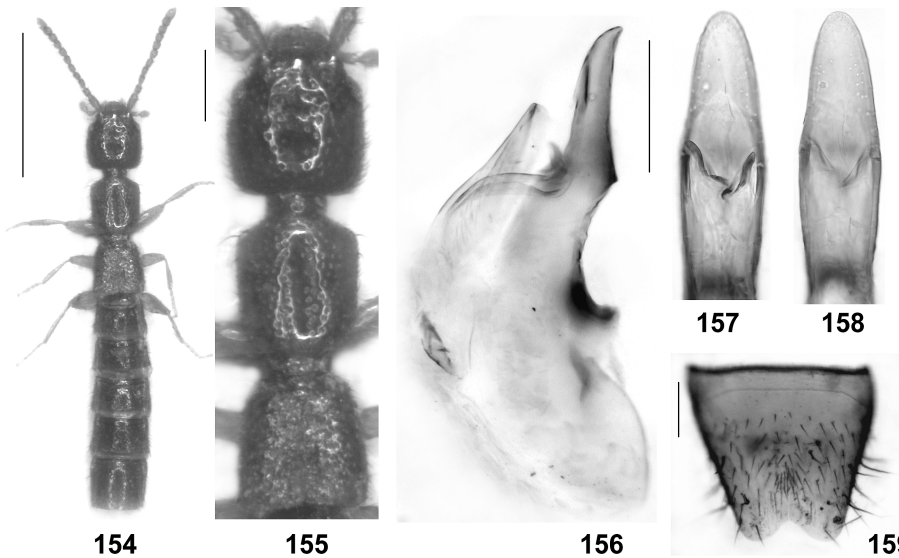
Elytra approximately as wide and at suture approximately 0.70 times as long as pronotum (Fig. 155); puncturation shallow and rather ill-defined; interstices with microsculpture. Hind wings reduced.

Abdomen approximately 1.1 times as wide as elytra, widest at segments V/VI (Fig. 154); puncturation fine and rather sparse; surface with shallow microsculpture and some shine; posterior margin of tergite VII without palisade fringe.

* Results of the program "Research Missions in the Mediterranean Basin" sponsored by the World Biodiversity Association onlus. XXI. contribution.

♂: sternite VII unmodified; sternite VIII posteriorly with V-shaped excision, anterior to this excision with small subcircular elevation with moderately dense, rather long dark pubescence (Fig. 159); aedeagus shaped as in Figs 156-158, with few very weakly sclerotised (barely visible) oblong internal structures.

Etymology: The name (Latin, adjective) is derived from the mountain range where the species was discovered.




**Figs 154-159**: *Sunius menalonicus* nov.sp.: (**154**) habitus; (**155**) forebody; (**156**) aedeagus in lateral view; (**157-158**) ventral process of aedeagus in ventral view; (**159**) male sternite VIII. Scale bars: 154: 1.0 mm; 155: 0.2 mm; 156-159: 0.1 mm.

Comparative notes: The morphology of the male primary and secondary sexual characters (shape and internal structures of aedeagus, presence of pubescent tubercle on sternite VIII) is most similar to some species of the *S. seminiger* group from Turkey. The geographically closest representatives are known from western Anatolia (Izmir, Manisa).

The only other pale coloured congeners with reduced hind wings and rather small eyes recorded from Greece are the relatively widespread *S. hellenicus* (COIFFAIT 1961) and *S. fokisensis* ASSING & WUNDERLE 2001, which is known only from Fokis, Fthiotis, Thessalia, and the northern Pelopónnisos. From both species, *S. menalonicus* is distinguished by the completely different shape of the aedeagus, by the presence of a pubescent tubercle on the male sternite VIII, by uniformly pale coloration (in the other two species, the head is usually at least slightly darker than the pronotum, and the abdomen is dark brown to blackish), as well as by the slightly (*S. fokisensis*) or distinctly (*S. hellenicus*) smaller and more slender body. For illustrations of the genitalia of the western Anatolian representatives of the *S. seminiger* group, of *S. fokisensis*, and of *S. hellenicus* see ASSING (2006a), ASSING & WUNDERLE (2001), and COIFFAIT (1984), respectively.

Distribution and bionomics: The known distribution of this species is confined to the Ménalon Óros in the central Pelopónnisos (to the northwest of Tripolis) (Map 7), where the type specimens were collected at an altitude of 1550 m. The adaptive reductions of pigmentation, eye size, and wings, as well as the restricted distributions of other species of the *S. seminiger* group suggest that *S. menalonicus* is probably confined to the Ménalon range.

### 4.62. *Sunius viator* (FAUVEL 1886) (Figs 160-162)

*Medon peregrinus* FAUVEL 1886: 31 f.; homonym.
*Medon viator* FAUVEL 1886: 99; replacement name for *M. peregrinus* FAUVEL.

Type material examined: Lectotype ♂ [aedeagus heavily damaged], here designated: "Guelma [original label glued on following label] / Coll. R. I. Sc. N. B., Algerie, ex coll. Fauvel / peregrinus Fvl / Ex-Typis / R. I. Sc. N. B. 17.479, Medon, Coll. et det. A. Fauvel / H. Coiffait vid. 1959 / Syntypus Medon peregrinus Fauvel, rev. V. Assing 2007 / Lectotypus *Medon peregrinus* Fauvel, desig. V. Assing 2007 / Sunius viator (Fauvel), det. V. Assing 2007" (IRSNB).

Comments: FAUVEL (1886) described this species, based on a male from "Guelma" in Algeria and on an unspecified number of specimens from "Turkestan (Taschkent)". The male syntype from Algeria was found in the Fauvel collection at the IRSNB. The specimen was studied by COIFFAIT (1961), who illustrated the aedeagus, but apparently damaged it in the process of preparing this illustration. According to COIFFAIT (1961, 1984), the species is closely allied to *S. sinaicus*, but I have been unable to identify characters supporting this hypothesis. The syntype material from Tashkent was not found, but it doubtlessly refers to a different species, probably to *S. claviceps*. Therefore, the male from Guelma is here designated as the lectotype.

Redescription: Species of relatively large size, 4.3 mm, distinguished from other *Sunius* species by external characters alone. Body of conspicuously slender habitus, with relatively long legs and antennae (Fig. 160). Coloration reddish, with abdominal segments III-VII infuscate.

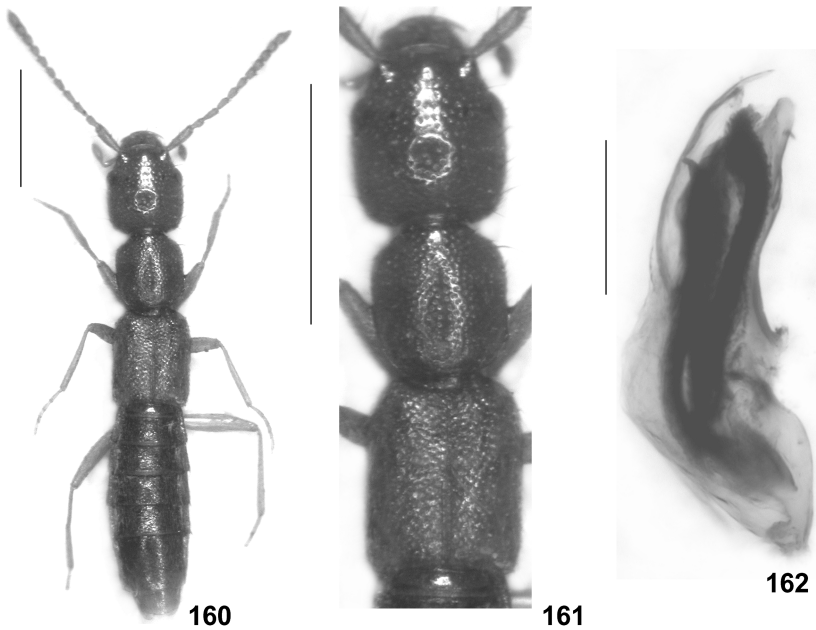
Head large in relation to pronotum and distinctly oblong, 1.05-1.10 times as long as wide, posterior margin strongly concave; puncturation rather coarse and dense; interstices in lateral areas on average narrower than diameter of punctures, in dorsal median area wider; integument without microsculpture. Eyes distinctly bulging, slightly less than half as long as postocular region in dorsal view (Fig. 161). Antennae slender; antennomere IV approximately twice as long as wide; IV-X of gradually decreasing length and decreasingly oblong.

Pronotum small in relation to head, 0.9 times as wide as head and 1.1 times as long as wide; puncturation coarse and conspicuously dense, interstices very narrow (Fig. 161).

Elytra almost 1.15 times as large as and slightly longer than pronotum; puncturation dense, moderately coarse, and rather ill-defined (Fig. 161).

Abdomen slightly wider than elytra; puncturation fine and dense; interstices with shallow microsculpture; posterior margin of tergite VIII with palisade fringe.

♂: sternite VII unmodified; sternite VIII with the usual posterior excision, otherwise unmodified; aedeagus of distinctive shape, with long and acute ventral process and with four long rows of sclerotised structures in internal sac (Fig. 162).




**Figs 160-162**: *Sunius viator* (FAUVEL): (**160**) habitus; (**161**) forebody; (**162**) aedeagus in lateral view. Scale bars: 160-161: 1.0 mm; 162: 0.2 mm.

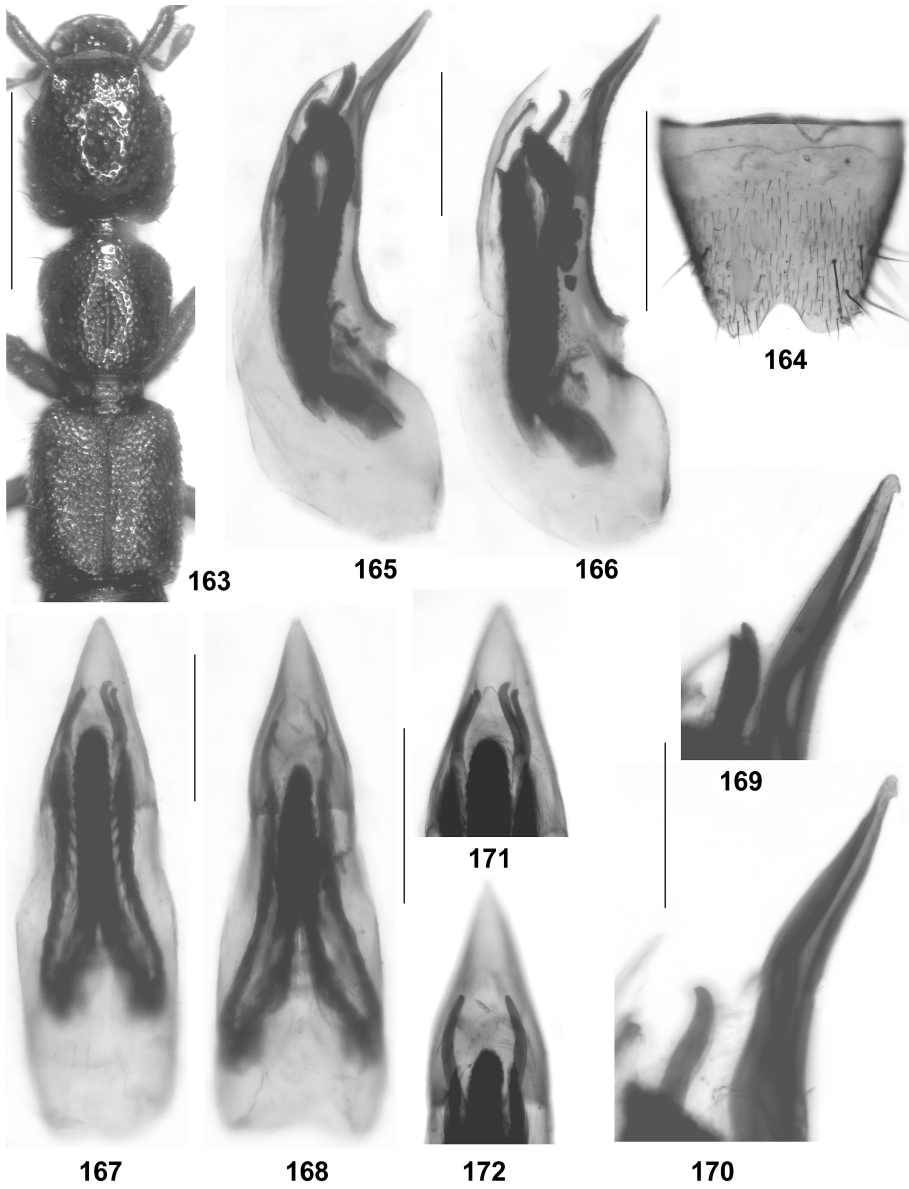
D i s t r i b u t i o n : According to SMETANA (2004), *S. viator* has been reported from Algeria, Egypt, Saudi Arabia, and Uzbekistan – a highly doubtful distribution pattern. It seems most likely that even the type material refers to different species and some (or all) of the subsequent records refer to similar congeners. At present, the only reliable record is from Algeria. Until records from other countries are confirmed, they should be considered doubtful.

### 4.63. *Sunius claviceps* (REITTER 1908) (Figs 163-172, Map 22)

*Medon claviceps* REITTER 1908: 17.

T y p e m a t e r i a l e x a m i n e d : Holotype ♀: "Turkestan, Aulie Ata [= Dzhambul] / Aulie / coll. Reitter / Monotypus [sic] Medon claviceps Reitter 1908 / Medon claviceps m. 1907 / Holotypus Medon claviceps Reitter, V. Gusarov des., 1992 / Sunius claviceps (Reitter), Gusarov det. 1992 / Sunius claviceps (Reitter) det. V. Assing" (HNHM).

C o m m e n t : The original description is based on a single specimens (ein einziges Exemplar") from "Turkestan: Aulie-Ata" (REITTER 1908). The holotype is a female.




**Figs 163-172**: *Sunius claviceps* (REITTER): (**163**) forebody; (**164**) male sternite VIII; (**165-168**) aedeagus of males from Uzbekistan (165, 167) and Kyrgyzstan (166, 168) in lateral and in ventral view; (**169-170**) apex of aedeagus of males from Uzbekistan (169) and Kyrgyzstan (170) in lateral view; (**171-172**) apical internal structures of aedeagus of males from Uzbekistan (171) and Kyrgyzstan (172) in ventral view. Scale bars: 163: 1.0 mm; 164: 0.5 mm; 165-168, 171-172: 0.2 mm; 169-170: 0.1 mm.

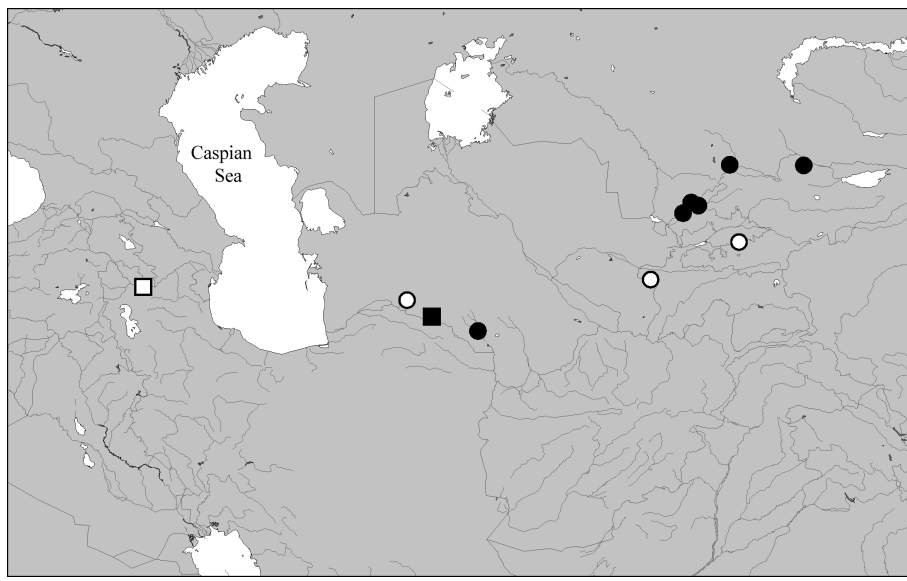
A d d i t i o n a l m a t e r i a l e x a m i n e d : Turkmenistan: 1♀, Tejen ["Tedschen"; 37°23N, 60°30E], leg. Aris (MNHUB). Kyrgyzstan: 1 ex., Bishkek env., 24.IV.1996, leg. Ovchinnikov (cSch). Uzbekistan: 3 exs., Tienshan, Galvassol, 20 km W Chimgan ["Tshimgan"], 700 m, 12.V.1989, leg. Wrase (cSch, cAss); 1 ex., Tienshan, "Großer Tshimgan", 1500 m, 12.V.1989, leg. Heinig (cAss); 1 ex., Chodshikent near Tasakent, 12.V.1989, leg. Wrase (cSch).

D i a g n o s i s : Of similar size and appearance as *S. viator*; 4.3-5.3 mm. Coloration: forebody reddish; abdomen blackish, posterior 1/3-2/3 of segment VII and segments VIII-X reddish; legs and antennae yellowish red. Head weakly oblong, 1.02-1.08 times as long as wide; puncturation coarse, dense in lateral and sparser in median dorsal area; microsculpture absent. Eyes of moderate size, 0.3-0.4 times as long as postocular region in dorsal view (Fig. 163). Antenna slender; antennomere III distinctly longer than II and approximately 2.5 times as long as wide; IV-VI oblong, of gradually decreasing length and decreasingly oblong; X as wide as long or weakly transverse.

Pronotum approximately 1.05 times as long as wide and 0.9 times as wide as head; puncturation very dense and coarse, though somewhat less coarse than that of head (Fig. 163); interstices distinctly narrower than diameter of punctures and without microsculpture; impunctate midline very narrow, sometimes not reaching anterior and posterior margins.

Elytra 0.98-1.05 times as long and approximately 1.1 times as wide as pronotum; puncturation very dense, much less defined than that of head and pronotum (Fig. 163). Legs long and slender.

Abdomen slightly wider than elytra; puncturation fine and dense; interstices with shallow microsculpture; posterior margin of tergite VIII with palisade fringe.




**Map 22**: Distributions of species of the *S. viator* group in the Caucasus region and Middle Asia, based on examined records: *Sunius claviceps* (REITTER) (filled circles), *S. acutissimus* nov.sp. (open circles), *S. basalis* (REITTER) (open square), and *S. splendidulus* (BOHÁČ) (filled square).

♂: sternite VII not distinctly modified, posterior margin weakly concave; sternite VIII with rather small posterior excision, pubescence unmodified (Fig. 164); aedeagus shaped as in Figs 165-172, internal sac with long rows of numerous distinctly sclerotised long spines.

Distribution and bionomics: Previous records from Kazakhstan and Uzbekistan (COIFFAIT 1984; SMETANA 2004) are here confirmed. The species is here reported from Turkmenistan for the first time (Map 22). The examined specimens with labels specifying dates and additional data were collected at altitudes of 700 and 1500 m in April and May.

**4.64. *Sunius basalis* (REITTER 1899)** (Fig. 206, Map 22)

*Medon basalis* REITTER 1899: 282.

Type material examined: Syntype ♀: "Caucasus, Araxesthal Leder. Reitter. / coll. Reitter / Holotypus Medon basalis Reitter 1899 / Sunius basalis (Reitter) det. V. Assing" (HNHM).

Comment: The original description is based on an unspecified number of syntypes (possibly only a single specimen) from "Transkaukasien: Araxesthal bei Ordubad" (REITTER 1899).

Diagnosis: 4.2 mm; slender species (Fig. 206). Coloration distinctive: head and pronotum reddish; elytra bicoloured, yellowish, with the basal third dark; abdomen dark brown; legs and antennae reddish yellow.

Head oblong, approximately 1.1 times as long as wide; puncturation coarse and dense, interstices on average narrower than diameter of punctures, without microsculpture. Eyes little more than half the length of postocular region in dorsal view. Antennae moderately slender; antennomere III approximately 2.5 times as long as wide; IV shorter than III, about 2.0 times as long as wide; V-VI weakly oblong; VII-X of decreasing length; X weakly transverse.

Pronotum approximately 1.1 times as long as wide and 0.95 times as wide as head; puncturation dense and rather coarse, but less coarse than that of head; without distinct impunctate midline.

Elytra almost 1.2 times as wide and approximately as long as pronotum; puncturation similar to that of pronotum, but shallower and less defined. Hind wings apparently developed. Legs slender; metatibia longer than width of abdomen.

Abdomen almost as wide as elytra; puncturation fine; microsculpture shallow; posterior margin of tergite VII with palisade fringe.

♂: unknown.

Distribution: The species has become known only from the type locality in Azerbaijan (Map 22).

**4.65. *Sunius wrasei* (SCHÜLKE 1989)** (173-176, Map 23)

*Medon wrasei* SCHÜLKE 1989: 83 ff.

Type material examined: Holotype ♂: "Tadshik. Hissar Alai, Warsob-Schlucht b. Duschanbe, 2000 m, 19.VII.1984, leg. Wrase / Holotypus ♂ Medon wrasei nov. spec., M. Schülke det. 1987 / Sunius wrasei (Schülke) det. V. Assing 2007" (cSch).

A d d i t i o n a l m a t e r i a l e x a m i n e d : Tajikistan: 1♀, Pamir Alai, Hissar mts., Warsob valley at km 55, 1800 m, edge of snow field, 28.VI.1990, leg. Schülke & Wrase (cAss).

C o m m e n t : The original description is based on a single male from "Tadshikistan, Hissar Alai, Warsob-Schlucht b. Duschanbe, 2000 m". For additional morphological data see the detailed description by SCHÜLKE (1989).

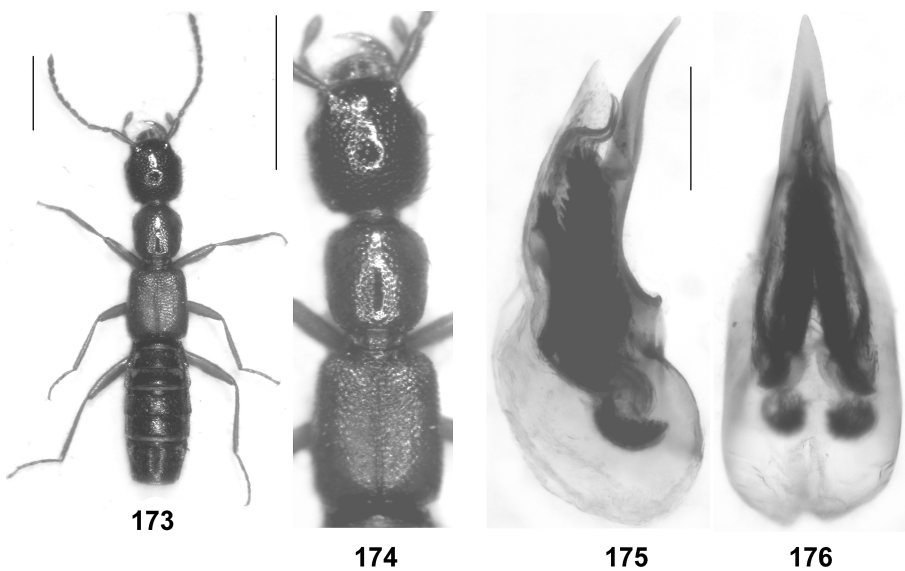
D i a g n o s i s : Rather large and colourful species; 4.9-5.3 mm. Habitus as in Fig. 173. Coloration: head and abdomen blackish; pronotum and elytra bright reddish; legs and antennae pale rufous.

Head 1.02-1.06 times as long as wide; puncturation similar to that of *S. claviceps*, but denser, in lateral areas extremely dense; interstices without microsculpture. Eyes approximately 0.35-0.40 times as long as postocular region (Fig. 174). Antennae of similar morphology as in *S. claviceps*, but longer and more slender; antennomere IV more than twice as long as broad.

Pronotum approximately 1.05 times as long as wide and 0.85-0.90 times as wide as head; puncturation as in *S. claviceps*, but impunctate midline broader; microsculpture absent (Fig. 174).

Elytra approximately 1.15 times as long and 1.25 times as wide as pronotum (Fig. 174); puncturation as in *S. claviceps*. Legs somewhat longer than in other species of the *S. viator* group.

Abdomen approximately as wide as or slightly wider than elytra; puncturation denser than in *S. claviceps*; microsculpture more pronounced than in *S. claviceps*; posterior margin of tergite VII with palisade fringe.




**Figs 173-176**: *Sunius wrasei* (SCHÜLKE), holotype: (**173**) habitus; (**174**) forebody; (**175-176**) aedeagus in lateral and in ventral view. Scale bars: 173-174: 1.0 mm; 175-176: 0.2 mm.

♂: sternite VII with distinct (almost semicircular) concavity in the middle; posterior excision of sternite VIII somewhat broader and more U-shaped than in *S. claviceps*; aedeagus of similar general morphology as in *S. claviceps* (Figs 175-176), but larger (0.83 mm) and with distinctly more acute ventral process.

Comparative notes: The species is readily distinguished from other species of the *S. viator* group by the conspicuously bicoloured body, long legs, the posteriorly distinctly concave male sternite VII, and by the morphology of the aedeagus.

Distribution: The species has become known only from the Varzob valley in the Hissar mountains, Tajikistan (Map 23), where both the holotype and the non-type specimen were collected at the edge of snowfields at altitudes of 1800 and 2000 m.

### 4.66. *Sunius splendidulus* (BOHÁČ 1988) (Figs 177-185, Map 22)

*Medon splendidulus* BOHÁČ 1988: 440 f.

Type material examined: Holotype ♂: "USSR-Turkmenistan, Annau, IV.1979, Kara-kum des., J. Boháč lgt. / Holotypus / Medon splendidus [sic] sp. n. Boháč det. 88 / Sunius splendidulus (Boháč) det. V. Assing 2007" (cBoh).

Comment: The original description is based on a holotype male from "Annau near Ashkhabad" and a paratype female from "Kopet dagh Mts, 13 km sw Kizylru" (BOHÁČ 1988).

Diagnosis: Rather large species; length of holotype: 5.3 mm. Habitus as in Fig. 177. Coloration: head, pronotum, and abdomen blackish; elytra reddish, with the scutellar and humeral areas somewhat infuscate; legs and antennae reddish brown, with the femora somewhat darker.

Head distinctly oblong, 1.08 times as long as wide, widest across eyes and distinctly tapering behind eyes (Fig. 178); puncturation coarse and dense; interstices without microsculpture, distinctly narrower than diameter of punctures, except for small median dorsal area. Eyes rather large and prominent, slightly more than half the length of postocular region in dorsal view. Antennae of similar morphology as in *S. wrasei* (Fig. 179).

Pronotum 1.12 times as long as wide and 0.86 times as wide as head (Fig. 178); puncturation even denser than that of head; with short rudiment of impunctate midline.

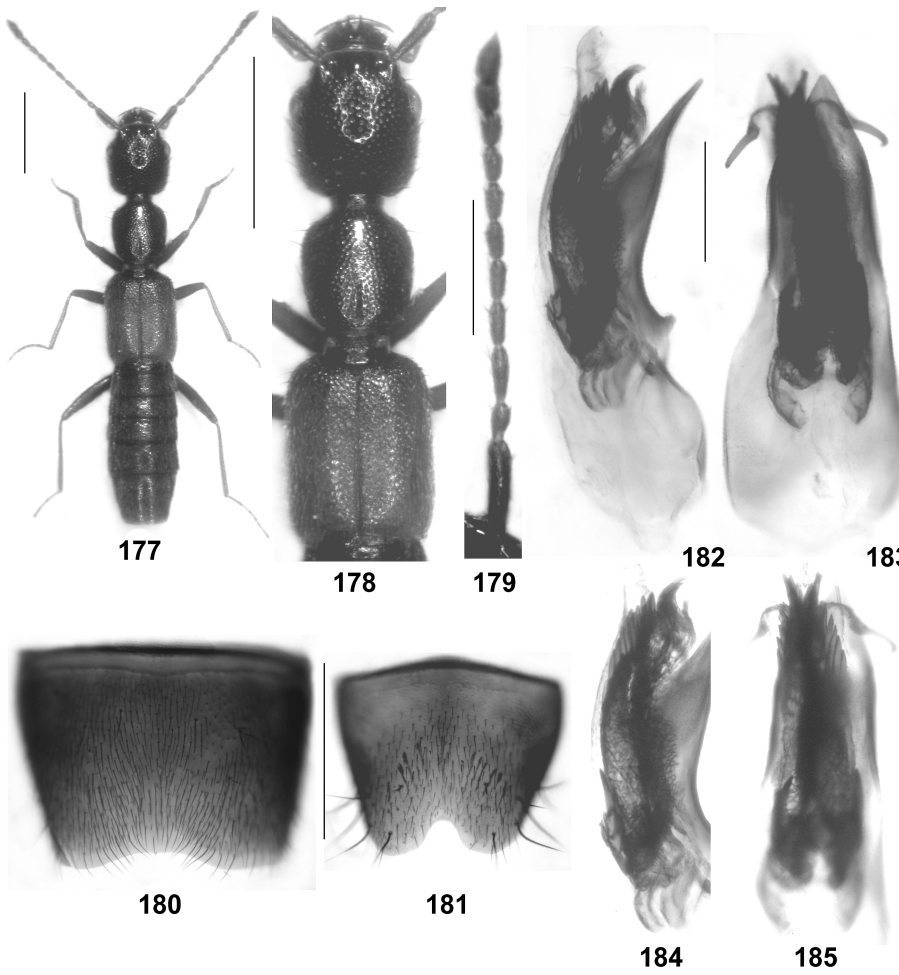
Elytra long and large, 1.20 times as long and 1.30 times as wide as pronotum; puncturation dense, finer and less defined than that of head and pronotum. Legs long and slender (Fig. 177).

Abdomen almost as wide as elytra; puncturation fine and dense; interstices with shallow, but distinct microsculpture; posterior margin of tergite VII with palisade fringe.

♂: sternite VII with broad concavity in the middle; posterior excision of sternite VIII U-shaped; aedeagus of similar general morphology as in *S. claviceps*, but ventral process with less slender apical part (ventral view) and subapically not dentate in lateral view, and with internal structures of different shape (Figs 182-185).

Comparative notes: From the other relatively large-sized Middle Asian representatives of the *S. viator* group (*S. claviceps*, *S. wrasei*, *S. acutissimus*), *S. splendidulus* is distinguished by the more slender and posteriorly tapering head, the more prominent eyes, the longer elytra, and the morphology of the aedeagus. From *S. acutissimus*, the only other species of similar coloration, it is additionally separated by the longer legs and antennae, the more slender pronotum, and by the less deep posterior excision of the male sternite VIII.

D i s t r i b u t i o n : The species is known only from the Kopet Dag mountains and its outliers in Turkmenistan (Map 22). The holotype was collected from a rodent nest in a desert in April, the paratype with a light trap in July (BOHÁČ 1988).

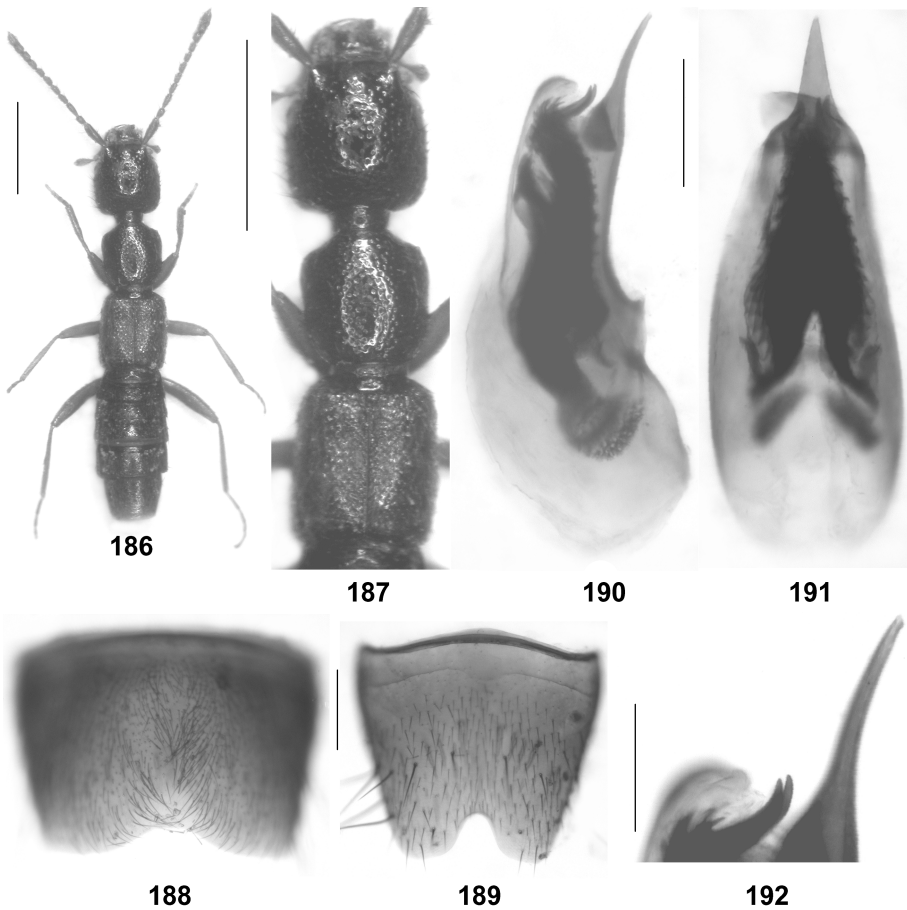



**Figs 177-185**: *Sunius splendidulus* (BOHÁČ), holotype: (**177**) habitus; (**178**) forebody; (**179**) antenna; (**180**) male sternite VII; (**181**) male sternite VIII; (**182-183**) aedeagus in lateral and in ventral view; (**184-185**) internal structures of aedeagus in lateral and in ventral view. Scale bars: 177-178: 1.0 mm; 179-181: 0.5 mm; 182-185: 0.2 mm.

**4.67. *Sunius acutissimus* nov.sp.** (Figs. 186-192, Map 22)

T y p e m a t e r i a l : Holotype ♂: "Tadshikistan, Seravshan Rg., Marguzor lakes, 5. lk [= lake] Hurdak [ca. 39°08'N, 67°57'E], 1950-2400 m, 20.-30.04.97, S. Pajdak leg. / Holotypus ♂ *Sunius acutissimus* sp. n. det. V. Assing 2007" (cAss). Paratypes: 4♀♀: same data as holotype (cSch, cAss); 1♀: "USSR Uzbekistan, Chamzabad, J. Viša lgt. / Fergana, 7.5.78 [overleaf]" (cBoh); 1♀: "USSR Uzbekistan, Chamza-Abad, 8.5.1977, J. Strejček lgt." (cBoh); 1♀: "Turkmenia mer., Bacharden [= Baherden; 38°26'N, 57°26'E], 26.4.1992, Lgt. Snížek" (cBoh); 1♂: "Asia c. USSR, 7.4.1986, Dzaus [?], Tian-Schan [= Tien-Shan], 1000 m. n, Z. Kačenka [?] lgt." (cAss).

D e s c r i p t i o n : 4.3-5.0 mm. Habitus as in Fig. 186. Coloration: head and abdomen blackish; pronotum dark brown to blackish brown; elytra, legs, and antennae reddish.




**Figs 186-192**: *Sunius acutissimus* nov.sp., holotype: (**186**) habitus; (**187**) forebody; (**188**) male sternite VII; (**189**) male sternite VIII; (**190-191**) aedeagus in lateral and in ventral view; (**192**) apex of aedeagus in lateral view. Scale bars: 186-187: 1.0 mm; 188-191: 0.2 mm; 192: 0.1 mm.

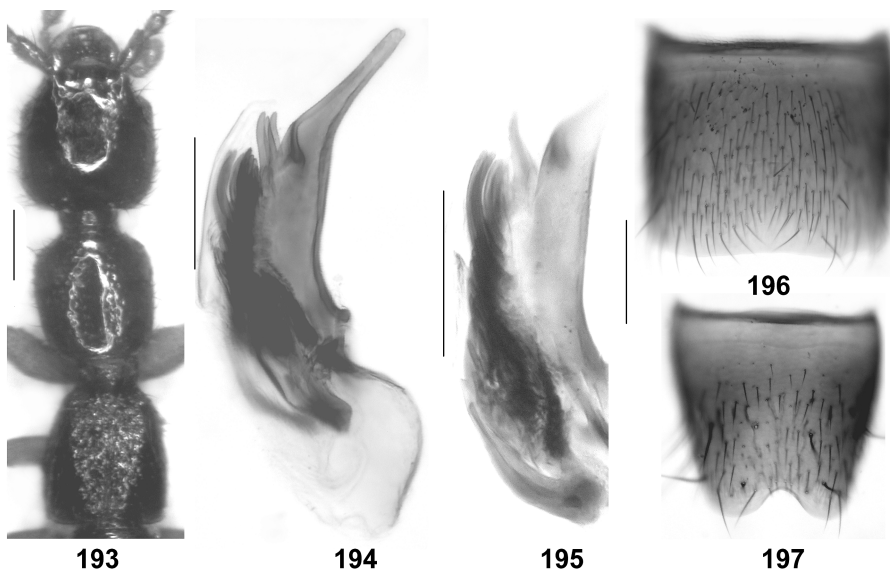
Head 1.02-1.05 times as long as wide; puncturation similar to that of *S. wrasei*, coarse, extremely dense in lateral areas and moderately dense in median dorsal area (Fig. 187); microsculpture absent. Eyes 0.40-0.45 times as long as postocular region in dorsal view. Antenna as in *S. claviceps*.

Pronotum approximately 1.05 times as long as wide and 0.90-0.95 times as wide as head (Fig. 187); puncturation almost as coarse as that of head and extremely dense, impunctate midline very narrow (similar to *S. claviceps*), sometimes not reaching anterior and posterior margins; interstices much narrower than diameter of punctures.

Elytra approximately of similar length and 1.10-1.15 times as broad as pronotum (Fig. 187); puncturation similar to that of *S. claviceps*. Legs as in *S. claviceps*.

Abdomen slightly wider than elytra; puncturation and microsculpture as in *S. claviceps*; posterior margin of tergite VII with palisade fringe.

E t y m o l o g y : The name (Latin, adjective) refers to the extremely acute ventral process of the aedeagus.




**Figs 193-197**: *Sunius bohaci* nov.sp.: (**193**) forebody; (**194**) aedeagus in lateral view; (**195**) internal structures of aedeagus in lateral view; (**196**) male sternite VII; (**197**) male sternite VIII. Scale bars: 193, 196-197: 0.2 mm; 194-195: 0.1 mm.

♂: sternite VII with posterior margin moderately concave in the middle, pubescence in posterior median area directed diagonally postero-mediad (Fig. 188); sternite VIII with posterior excision somewhat deeper than in *S. claviceps* (Fig. 189); aedeagus of similar general morphology as in *S. claviceps*, as large as that of *S. wrasei* (0.84 mm), but with conspicuously acute ventral process.

C o m p a r a t i v e n o t e s : From all other species of the *S. viator* group, the new species is distinguished especially by the remarkably acute ventral process of the

aedeagus. From *S. claviceps*, it is additionally separated by the darker coloration of the head and the pronotum, by the denser puncturation of the head, by the broader elytra, by the shape and chaetotaxy of the male sternite VII, and by the deeper posterior excision of the male sternite VIII. From *S. wrasei*, it is also distinguished by slightly smaller size, the darker coloration of the pronotum, the shorter antennae and legs, the shorter elytra, as well as by the shallower posterior concavity of the male sternite VII.

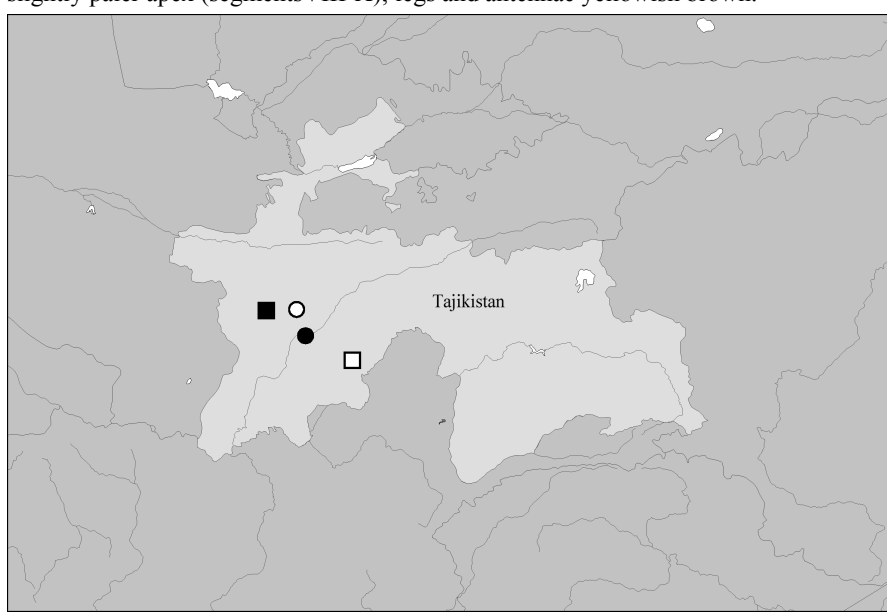
Distribution and bionomics: The species has been recorded from few localities in Tajikistan, Uzbekistan, and Turkmenistan (Map 22). Despite thorough search and the assistance of several colleagues, it has not been possible to identify the locality in the Tien-Shan (Dzaus?). The type specimens were collected at altitudes between 1000 and 2400 m in April and May.

### 4.68. *Sunius bohaci* nov.sp. (Figs 193-197, Map 23)

Type material: Holotype ♂: "USSR - Tajikistan, Kara-tau Mt., pr. Nurek, 1600 m, Boháč lgt., 23.4.83 / Holotypus ♂ *Sunius bohaci* sp. n. det. V. Assing 2007" (cAss). Paratypes: 8 exs.: same data as holotype (cBoh, cAss); 1 ex.: same data, but "24.4.83" (cAss).

Head usually weakly oblong, 1.02-1.05 times as long as wide; puncturation in anterior half of dorsal surface coarse and rather sparse; posterior half of dorsal surface with sparser puncturation, sometimes almost impunctate; microsculpture absent. Eyes approximately 1/3 the length of postocular region in dorsal view (Fig. 193).

Description: Small species, 2.4-2.8 mm. Coloration: forebody brown to dark brown, with the pronotum often somewhat paler; abdomen blackish, except for the slightly paler apex (segmentsVIII-X); legs and antennae yellowish brown.




**Map 23**: Distributions of species of the *S. viator* group in Tajikistan, based on examined records: *Sunius wrasei* (SCHÜLKE) (filled square), *S. inflexus* nov.sp. (open circle), *S. bohaci* nov.sp. (filled circle), and *S. pennatus* nov.sp. (open square). The territory of Tajikistan is highlighted to facilitate geographic recognition.

Pronotum slender and small in relation to head, approximately 1.1 times as long as wide and 0.85-0.90 times as wide as head; puncturation coarser and denser than that of head (Fig. 193).

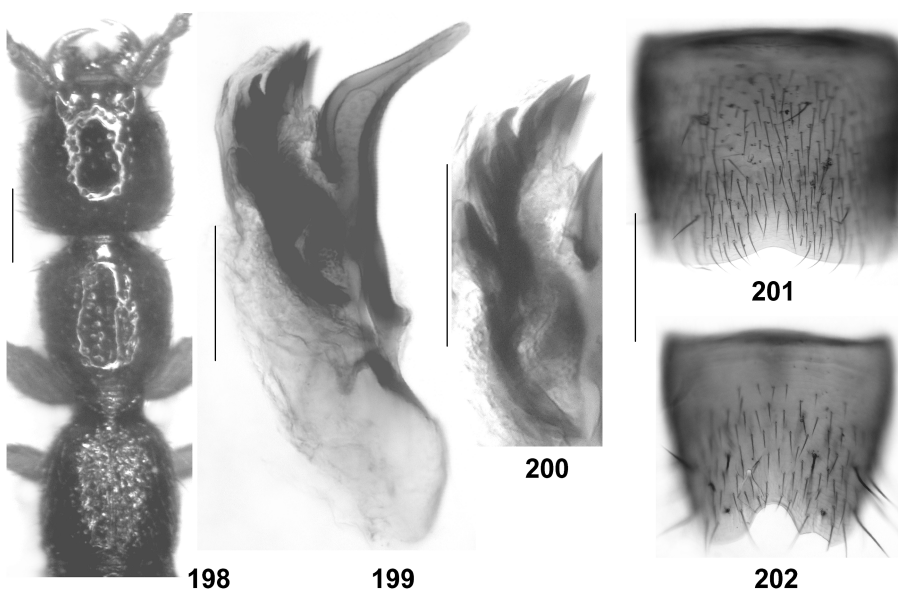
Elytra short, approximately 0.75-0.85 times as long and about as broad as pronotum; humeral angles practically obsolete (Fig. 193); puncturation finer and less defined than that of pronotum; interstices with or without shallow microsculpture.

Abdomen approximately 1.15 times as wide as elytra; puncturation fine and moderately dense; microsculpture shallow; posterior margin of tergite VII without palisade fringe.

♂: sternite VII with posterior margin indistinctly concave, pubescence in posterior median area directed diagonally postero-mediad (Fig. 196); sternite VIII with posterior excision moderately deep and broadly V-shaped (Fig. 197); aedeagus 0.39 mm long, in lateral view with apically acute and subapically moderately angled ventral process; internal sac with two rows of relatively long and slender spines (Figs 194-195).

E t y m o l o g y : The species is dedicated to Jaroslav Boháč, who collected the types of this and the following species.

C o m p a r a t i v e n o t e s : From all other species occurring in Middle Asia, except for the two following species, *S. bohaci* is readily separated by external characters alone, especially the much smaller size, shorter and more slender elytra without humeral angles, as well as by the absence of a palisade fringe at the posterior margin of tergite VII. For characters distinguishing it from *S. inflexus* and *S. pennatus* see the following sections.




**Figs 198-202**: *Sunius inflexus* nov.sp.: (**198**) forebody; (**199**) aedeagus in lateral view; (**200**) internal structures of aedeagus in lateral view; (**201**) male sternite VII; (**202**) male sternite VIII. Scale bars: 198, 201-202: 0.2 mm; 199-200: 0.1 mm.

D i s t r i b u t i o n a n d b i o n o m i c s : The type specimens were collected in one locality near Nurek, Tajikistan (Map 23), at an altitude of 1600 m. Additional bionomic data are not available.

**4.69. *Sunius inflexus* nov.sp.** (Figs 198-202, Map 23)

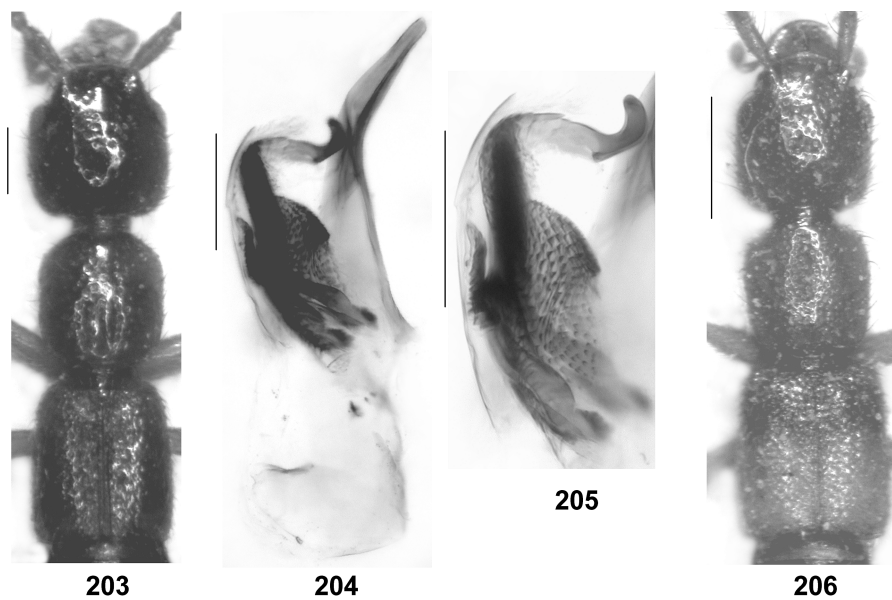
T y p e m a t e r i a l : Holotype ♂: "USSR - Tajikistan, Dušanbe env., Boháč lgt., 19.4.83 / Holotypus ♂ *Sunius inflexus* sp. n. det. V. Assing 2007" (cAss). Paratype ♀: "USSR -Tajikistan, Dušanbe env., Javros [=Yavroz], 1.5.1977, J. Strejček lgt." (cBoh).

D e s c r i p t i o n : 2.3-2.7 mm. Similar to *S. bohaci*, but distinguished as follows:

Coloration of forebody bright to dark reddish; elytra dark brown to blackish, with the humeral region more or less extensively reddish.

Head approximately as long as wide. Pronotum slightly larger in relation to head, approximately 0.90-0.95 times as wide as head. Elytra slightly broader and shorter, approximately 0.70 times as long as pronotum; puncturation coarser and more defined (Fig. 198).

♂: sternite VII with posterior margin distinctly concave in the middle (Fig. 201); sternite VIII with posterior excision slightly deeper and narrower (Fig. 202); aedeagus 0.39 mm long, in lateral view with subapically strongly bent ventral process; internal sac with two rows of stouter and more strongly sclerotised spines.




**Figs 203-206**: *Sunius pennatus* nov.sp. (**203-205**) and *S. basalis* (REITTER), syntype (**206**): (**203, 206**) forebody; (**204**) aedeagus in lateral view; (**205**) internal structures of aedeagus in lateral view. Scale bars: 206: 0.5 mm; 203: 0.2 mm; 204-205: 0.1 mm.

E t y m o l o g y : The name (Latin, adjective: bent, curved) refers to the shape of the ventral process of the aedeagus, one of the most evident characters distinguishing this species from its most similar congeners.

C o m p a r a t i v e n o t e s : From other species occurring in Middle Asia, except *S. bohaci* (see above) and *S. pennatus* (following section), *S. inflexus* is readily separated by by its external morphology alone, especially the much smaller size, the shorter elytra without distinct humeral angles, and by the absence of a palisade fringe at the posterior margin of tergite VII. For characters distinguishing it from *S. bohaci* see the description above. *Sunius pennatus* has distinctly longer elytra with humeral angles, a palisade fringe at the posterior margin of tergite VII, and different male sexual characters.

D i s t r i b u t i o n a n d b i o n o m i c s : The species is known only from the surroundings of Dushanbe, Tajikistan (Map 23). Additional bionomic data are not available.

### 4.70. *Sunius pennatus* nov.sp. (Figs. 203-205, Map 23)

T y p e m a t e r i a l : Holotype ♂: "Muminabad. Sharan sklon [= slope], Na trope [= on trail], 6/V-69 (11) / Holotypus ♂ *Sunius pennatus* sp. n. det. V. Assing 2007" (cAss).

D e s c r i p t i o n : 2.8 mm. Similar to *S. bohaci* and *S. inflexus*, but distinguished as follows:

Coloration of pronotum and elytra pale brown, that of head dark brown.

Head approximately 1.05-1.10 times as long as wide. Eyes larger and more prominent, little less than half the length of postocular region in dorsal view. Elytra with pronounced humeral angles and distinctly broader and longer, approximately as long as pronotum or nearly so, and slightly broader than pronotum (Fig. 203). Abdomen approximately as wide as elytra; posterior margin of tergite VII with palisade fringe.

♂: sternite VII with indistinctly concave posterior margin, similar in shape to that of *S. bohaci*; sternite VIII with posterior excision slightly deeper than in *S. inflexus*; aedeagus of similar general morphology as in *S. bohaci* and *S. inflexus*, but somewhat larger (0.48 mm) and ventral process and internal structures of different shape.

E t y m o l o g y : The name (Latin, adjective: winged) refers to the long elytra and probably longer hind wings, which readily distinguish this species from its most similar congeners.

C o m p a r a t i v e n o t e s : For distinction from *S. bohaci* and *S. inflexus*, the only congeners of similarly small size and distributed in Middle Asia, see the description above.

D i s t r i b u t i o n a n d b i o n o m i c s : The type locality appears to be near Muminabad (today Leningradskiy or Leningrad) in Tajikistan (38°06'N, 70°02'E) (Map 23). However, there is a – much smaller – locality called Muminabad also in Uzbekistan (39°23'N, 67°25'E) near the border to Tajikistan. Apart from the date of collection, bionomic data are not available.

### 4.71. *Sunius sinaicus* (COIFFAIT 1961)

*Hypomedon sinaicus* COIFFAIT 1961: 29 ff.
*Hypomedon punctatum* COIFFAIT 1979: 169; primary homonym.
*Hypomedon punctum* COIFFAIT 1983: 346; replacement name; **nov.syn.**

Type material examined: Holotype ♂: "Medon peregrinus Fvl., Sinaï: O. Taba, 3.3.1902 / peregrinus / Coll. Peyerimhoff / Museum Paris / Holotype / Hypomedon sinaïcus Coiff., HC. 59" (MNHNP). Paratype ♀: "Ouady el Ain, 2 (Sinaï) / Ouady Saal, 2 (Sinaï) / Ouady Taba (Syrie), 2, près Agaba / Coll. et det. A. Fauvel, Medon peregrinus Fauv., R.I.Sc.N.B. 17.479 / Paratype / Hypomedon sinaicus Coiff., HC. 59" (IRSNB).

Comments: The original description of S. *sinaicus* is based on a holotype male from "Sinaï, O. Taha" and an unspecified number of syntypes from "Sinaï" in the Peyerimhoff and Fauvel collections at the MNHNP and the IRSNB, respectively.

*Hypomedon punctatus* COIFFAIT 1979, a junior primary homonym of *H. punctatus* COIFFAIT 1975, was described from a single female from "El Hair", Saudi Arabia, deposited in the "Musée de Bâle" (COIFFAIT 1979), without any reference whatsoever to *S. sinaicus*, and later replaced with *H. punctus* (COIFFAIT 1983). The holotype was not examined. However, the non-type female from Saudi Arabia in the Coiffait collection, which was identified by Coiffait himself, is conspecific with the type material of *S. sinaicus*. There is little doubt that the same applies to the holotype of *H. punctatus*, so that this name and its replacement name *H. punctus* are here placed in the synonymy of *S. sinaicus*.

Additional material examined: Saudi Arabia: 1 ex. ["Hypomedon punctatum Coiff., H. Coiffait det. 1981"], Wadi Shuqub, 1440 m, 6.IV.1980, leg. Büttiker (MNHNP). Oman: 1 ex., Dnofar, AL, 6.IX.1994, leg. Rihane (cAss); 1 ex., Dnofar, NV, 24.VIII.1994, leg. Rihane (cAss).

Diagnosis: In external appearance (body shape, dense puncturation of the head), somewhat resembling species of *Acanthoglossa* KRAATZ. Body of moderate size, 3.3-3.8 mm; elytra distinctly longer and broader than pronotum.

♂: aedeagus of distinctive morphology; for illustrations see COIFFAIT (1961, 1984).

Distribution: The known distribution includes Saudi Arabia, Egypt (Sinai peninsula), and Oman, from where it is recorded for the first time.

## 5. Synonymic catalogue of the *Sunius* species of the Western Palaearctic region and Middle Asia

The valid names are given in alphabetical order; the synonyms are sorted by publication year.

| (sub-)species | distribution |
|---|---|
| *aculeatus* ASSING 2005 | Turkey: Muğla: Boncuk Dağı |
| *acutissimus* nov.sp. | Tajikistan, Uzbekistan, Turkmenistan |
| *adanensis* (LOKAY 1919)<br>= *phasianus* (BORDONI 1980), nov.syn. | Turkey, Iran, Syria? |
| *afghanicus* (COIFFAIT 1973) | Afghanistan |
| *akianus* ASSING 2005 | Turkey: Muğla: Ak Dağlar |
| *algiricus* (COIFFAIT 1973) | Algeria, Tunisia, southern Italy (incl. Sicily) |

| **(sub-)species** | **distribution** |
|---|---|
| *amanensis* ASSING 2005 | Turkey: Antakya: Nur Dağları |
| *anophthalmus* HERNÁNDEZ & GARCÍA 1992 | Canary Islands: La Palma |
| *atlasicus* (COIFFAIT 1970) | Morocco: Moyen Atlas |
| *baboricus* nov.sp. | NE-Algeria |
| *balkarensis* ASSING 2001 | Turkey: E-Mersin |
| *basalis* (REITTER 1899) | Azerbaijan |
| *behnei* nov.sp. | Spain: Andalucía: Sierra Magina |
| *berberus* (COIFFAIT 1961) | NE-Algeria: Annaba env. |
| *bicolor* (OLIVIER 1795)<br>= *ruficornis* (LATREILLE 1806)<br>= *ruficollis* (KRAATZ 1857) | Atlanto-Mediterranean: Iberian Peninsula, West Europe, southern England, Italy, Central Europe (except for the southeast), southern Scandinavia |
| *bihamatus* ASSING 2005 | N-Tunisia: Teboursouk env. |
| *bogdoensis* GREBENNIKOV 2001 | Russia: lower Volga region |
| *bohaci* nov.sp. | Tajikistan |
| *bozdagensis* ASSING 2006 | Turkey: Izmir: Boz Dağlar |
| *brachati* ASSING 2003 | Turkey: W-Antalya |
| *brachypterus* (GEMMINGER & HAROLD 1868)<br>= *brevipennis* (W. SCRIBA 1868)<br>= *pyrenaeus* (COIFFAIT 1961)<br>= *franzi* (COIFFAIT 1970) | SW-France: Eastern Pyrénées |
| *brevipennis brevipennis* (WOLLASTON 1864) | Canary Islands: Tenerife |
| *brevipennis canariensis* (BERNHAUER 1928) | Canary Islands: Gran Canaria, La Palma, El Hierro, Lanzarote |
| *brevipennis gomerensis* nov.ssp. | Canary Islands: La Gomera |
| *brevispinosus* ASSING 2005 | Turkey: Kahramanmaraş |
| *calatravae* nov.sp. | Spain: Ciudad Real |
| *catalonicus* (COIFFAIT 1961) | NE-Spain |
| *cazorlae* ASSING 2003 | Spain, Andalucía: Sierra de Cazorla |
| *claviceps* (REITTER 1908) | Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan |
| *confusus* (COIFFAIT 1970) | Spain, Andalucía: Sierra de las Nieves |
| *cordobanus* nov.sp. | Spain: Andalucía: Sierra de Córdoba |
| *discretus* nov.sp. | NW-Tunisia |
| *dumanlianus* ASSING 2005 | Turkey: Antalya: Dumanlı Dağı |
| *fallax* (LOKAY 1919)<br>= *austriacus* (COIFFAIT 1961) | southeastern Central Europe, SE-Europe, NW-Turkey, Ukraine, Moldavia, western Caucasus region |
| *falsus* nov.sp. | Israel, Lebanon |
| *fernandezi* HERNANDEZ & GARCIA | Canary Islands: Tenerife |
| *fokisensis* ASSING & WUNDERLE 2001 | S-Greece |
| *fortespinosus* ASSING 2006 | Turkey: Aydın/Izmir: Aydın Dağları |
| *fulgocephalus* (COIFFAIT 1970) | Armenia, Georgia, Azerbaijan, Iran |
| *fultus* ASSING 2003 | N-Morocco: southern Rif |
| *georgii* ADORNO & ZANETTI 2003 | Italy: Sicily |
| *goektepensis* ASSING 2005 | Turkey: Mersin: Goektepe Dağı |
| *gourvesi* (COIFFAIT 1981) | N-Morocco: Jebel Zerhoun |
| *hastatus* ASSING 2001 | Morocco: Haut Atlas |

| **(sub-)species** | **distribution** |
|---|---|
| *hatayanus* ASSING 2005 | Turkey: S-Antakya |
| *hellenicus* (COIFFAIT 1961) | Greece |
| *hypogaeus* (FAUVEL 1900) | Syria, Israel |
| *ibizae* nov.sp. | Spain: Ibiza |
| *ignatii* ADORNO & ZANETTI 2003 | Italy: Sicily |
| *inflexus* nov.sp. | Tajikistan |
| *iranicus* ASSING 2002 | Iran |
| *italicus* (COIFFAIT 1961) | mainland Italy |
| *kaboulensis* COIFFAIT 1981 | Afghanistan |
| *khnzoriani* (COIFFAIT 1970)<br>= *dolabrifer* ASSING 2001; nov.syn. | Turkey, Armenia, Georgia, Iran |
| *klapperichi* (COIFFAIT 1981) | Jordan |
| *longispinosus* ASSING 2005 | Turkey: Kahramanmaraş |
| *mallorcensis* (COIFFAIT 1970) | Spain: Mallorca |
| *martinarum* ADORNO & ZANETTI 2003 | Italy: Sicily |
| *melanocephalus anatolicus* ASSING 1995 | W- and SW-Turkey, Greece: Lesbos |
| *melanocephalus melanocephalus* (FABRICIUS 1793)<br>= *nigrocephalus* (TURTON 1802)<br>= *fuscipennis* (MOTSCHULSKY 1858)<br>= *affinis* (KRAATZ 1859)<br>= *macropterus* (BERNHAUER 1932)<br>= *armeniacus* (COIFFAIT 1970); nov.syn. | trans-Palaearctic, from eastern Russia to France and NE-Spain; introduced in North America |
| *menalonicus* nov.sp. | Greece: Pelopónnisos: Oros Menalon |
| *meybohmi* ASSING 2003 | Portugal, Spain |
| *microphthalmus* (FRANZ 1979) | Canary Islands: El Hierro |
| *montanellus* (BORDONI 1980) | Morocco: Haut Atlas |
| *mordicus* nov.sp. | Kyrgyzstan, Kazakhstan |
| *mouzaianus* nov.sp. | N-Algeria |
| *nevadensis* (COIFFAIT 1980) | Spain: Andalucía: Sierra Nevada |
| *nidicola* (KASHCHEEV 1982) | Kazakhstan |
| *nigrinus* (EPPELSHEIM 1892)<br>= *picinus* (BERNHAUER 1902); nov.syn.<br>= *meuseli* (BERNHAUER 1905); nov.syn.<br>= *lebedevi* (ROUBAL 1926); nov.syn. | Middle Asia (Turkmenistan, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan), Russia, NW-China |
| *nurdaghensis* ASSING 2001 | S-Turkey: Osmaniye/Antakya: Nur Dağları |
| *ovaliceps* (FAUVEL 1878)<br>= *fagniezi* (PEYERIMHOFF 1916); nov.syn.<br>= *peyerimhoffi* (COIFFAIT 1961); nov.syn.<br>= *deharvengi* (COIFFAIT 1980); nov.syn.<br>= *murciensis* (COIFFAIT 1980); nov.syn.<br>= *valentianus* (COIFFAIT 1980); nov.syn. | Western Mediterranean: southern mainland France, Spain, Morocco, Algeria, Tunisia |
| *palmi* (FRANZ 1979) | Canary Islands: La Gomera |
| *pauli* ASSING 2005 | Turkey: Adıyaman |
| *pennatus* nov.sp. | Tajikistan |
| *pinniger* ASSING 2006 | W-Turkey: Izmir |
| *plasoni* (EPPELSHEIM 1875)<br>= *pinnatus* ASSING 2006; nov.syn. | W-Turkey: Manisa: Karadağ |

| (sub-)species | distribution |
|---|---|
| *praecisus* nov.sp. | Tajikistan, Iran |
| *propinquus* (BRISOUT DE BARNEVILLE 1867)<br>= *vicinus* (BRISOUT DE BARNEVILLE 1860)<br>= *laetus* (THOMSON 1867) | Atlanto-Mediterranean: Madeira, Azores, Iberian Peninsula, France, Belgium, Netherlands, England, Ireland, Italy, ?Germany, ?Austria, North Africa (Tunisia, Algeria, Morocco) |
| *puglianus* (COIFFAIT 1961) | Italy: Puglia |
| *rastrifer* ASSING 2001 | S-Turkey: Antalya |
| *rectus* nov.sp. | N-Algeria |
| *renouardi* (COIFFAIT 1955) | Lebanon |
| *sardus* nov.sp. | Italy: Sardinia |
| *segurae* ASSING 2003 | Spain: Andalucía: Sierra de Segura |
| *seminiger* (FAIRMAIRE 1860)<br>= *aveyronnensis* (MATHAN 1862); resyn.<br>= *gracilis* (MULSANT & REY 1870) | S-France: southern Massif Central and adjacent areas |
| *sexspinosus* ASSING 2006 | Turkey: Muğla |
| *simoni* (QUEDENFELDT 1881)<br>= *nitidus* (QUEDENFELDT 1881); nov.syn.<br>= *politus* (QUEDENFELDT 1883); nov.syn.<br>= *quedenfeldti* (EPPELSHEIM 1883); nov.syn.<br>= *nitens* (DUVIVIER 1883); nov.syn. | S-Spain, N-Morocco |
| *sinaicus* (COIFFAIT 1961)<br>= *punctus* (COIFFAIT 1983); nov.syn.<br>= *punctatus* (COIFFAIT 1979); nov.syn. | Saudia Arabia, Oman, Egypt: Sinai |
| *spinosissimus* nov.sp. | Lebanon |
| *splendidulus* (BOHÁČ 1988) | Turkmenistan |
| *tenerifensis* (FRANZ 1979) | Canary Islands: Tenerife |
| *tuberiventris* ASSING 2001 | Turkey: Mersin |
| *tuniseus* (COIFFAIT 1973) | Tunisia: Dorsale range |
| *vaulogeri* (COIFFAIT 1973) | N-Algeria |
| *viator* (FAUVEL 1886)<br>= *peregrinus* (FAUVEL 1886) | Algeria, Egypt?, Saudi Arabia? |
| *wrasei* (SCHÜLKE 1989) | Tajikistan |
| *wunderlei* ASSING 2001 | Turkey: Mersin |

## 6. Key to the Western Palaearctic and Middle Asian *Sunius* species

The following key does not account for *S. bogdoensis*, *S. kaboulensis*, and *S. nidicola*, of which no material has been available for examination. Owing to low divergence and diversity of external characters, as well as to pronounced intraspecific variation and considerable overlap, a reliable identification based on external characters alone is in most cases difficult or impossible. An examination of the male primary and secondary sexual characters is usually mandatory.

In order to facilitate identification, the key also relies on zoogeographic data. The vast majority of species is more or less microphthalmous, has reduced hind wings, and highly restricted distributions.

The references to accurate illustrations of the male genitalia in the literature are abbreviated as follows: A01a = ASSING (2001a); A01b = ASSING (2001b); A02 = ASSING (2002); A03a = ASSING (2003a); A03b = ASSING (2003b); A05a = ASSING (2005a); A05b = ASSING (2005b); A05c = ASSING (2005c); A05d = ASSING (2005d); A06a = ASSING (2006a); AW01 = ASSING & WUNDERLE (2001); AZ03 = ADORNO & ZANETTI (2003); C84 = COIFFAIT (1984).

1 Species from the Canary Islands ..... 2
- Species absent from the Canary Islands ..... 9
2 Eyes strongly reduced, smaller than antennomere I in cross-section. Posterior margin of abdominal segment VII without palisade fringe ..... 3
- Eyes fully developed or of moderate size, at least 1/3 the length of postocular region in dorsal view. Posterior margin of abdominal segment VII with palisade fringe..... 5
3 Eyes completely reduced. Species from La Palma..... ***S. anophthalmus*** HERNÁNDEZ & GARCÍA
- Eyes small, but noticeable. Distribution different ..... 4
4 Eyes approximately as large as antennomere IV in cross-section; microsculpture of head shallow or indistinct. El Hierro. Aedeagus as in Fig. 19..... ***S. microphthalmus*** (FRANZ)
- Eyes approximately as large as antennomere I or II in cross-section; microsculpture of head pronounced. Tenerife. Aedeagus as in Fig. 21..... ***S. tenerifensis*** (FRANZ)
5 Species always fully winged, elytra always longer than pronotum. Aedeagus with strongly sclerotised and basally U-shaped rod-like structure in internal sac..... 6
- Polymorphic species with several wing-dimorphic, wing-polymorphic, or brachypterous subspecies; elytra mostly shorter than pronotum. Aedeagus with weakly sclerotised and basally not U-shaped rod-like structure in internal sac..... 7
6 Average coloration darker; pronotum usually brown to dark brown, rarely dark reddish; elytra pale reddish to dark brown. Aedeagus smaller and with shorter ventral process shaped as in Fig. 23. La Gomera ..... ***S. palmi*** (FRANZ)
- Coloration paler; pronotum bright reddish, elytra yellowish. Aedeagus larger and with longer ventral process shaped as in Fig. 25. Tenerife ..... ***S. fernandezi*** HERNÁNDEZ & GARCÍA
7 Forebody of uniformly reddish coloration; abdomen usually with segments III-VI blackish brown to blackish and segments VII-X reddish. Head usually with distinct microsculpture. Elytra shorter than pronotum; macropterous morph unknown. Aedeagus as in Figs 9-11. La Gomera..... ***S. brevipennis gomerensis*** nov.ssp.
- Head of similar coloration as pronotum and elytra, or darker; abdomen either of uniformly dark or reddish coloration, or segment VII as dark as segment VI. Head without, or with very weak microsculpture. Elytra of variable length; in macropterous morph 1.10-1.15 times as long as pronotum, in brachypterous and submacropterous morphs 0.85-1.05 times as long as pronotum. Absent from La Gomera ..... 8
8 Macropterous morph rare. Aedeagus as in Figs 5-6, ventral process with stout and truncate apex, apical part of flagellum shorter. Tenerife..... ***S. brevipennis brevipennis*** (WOLLASTON)
- Macropterous morph rather common. Aedeagus as in Figs 7-8, 13-17, ventral process with less stout and not distinctly truncate apex, apical part of flagellum longer. Gran Canaria, La Palma, El Hierro, Lanzarote ..... ***S. brevipennis canariensis*** (BERNHAUER)
9 Posterior margin of abdominal tergite VII with palisade fringe. On average larger species, body length in normal preparation usually >3.3 mm. For two species from the Baleares with or without narrow rudiment of a palisade fringe follow this alternative..... 10
- Posterior margin of abdominal tergite VII without palisade fringe. Body length of most species < 3.5 mm in normal preparation ..... 39

10 Head and pronotum with coarse and dense puncturation; interstices narrower than punctures; pronotum without distinct impunctate midline, at most with weakly pronounced trace of such midline in posterior half. Forebody reddish; abdomen blackish with paler apex. Head weakly transverse. Antennomeres VI-VII not oblong. Length approximately 3.5 mm. Habitus somewhat resembling that of *Acanthologlossa* KRAATZ and *Hypomedon debilicornis* (WOLLASTON). ♂: aedeagus with conspicuously long, acute, and laterally flattened ventral process, and with at least 6 remarkably long dark spines in internal sac (Figs: C84). Middle East: Saudi Arabia, Oman, Egypt: Sinai..... ..... ***S. sinaicus*** (COIFFAIT)

- Character combination different. Species with similarly coarse puncturation are larger and have an oblong head, oblong antennomeres VI-VII, distinctly longer legs, an aedeagus of different morphology, and a different distribution .....11

11 Head and pronotum in most species with rather coarse and dense puncturation (Figs 161, 163, 173, 178, 187, 202). Legs and antennae conspicuously long and slender (Figs 160, 174, 177, 186); antennomere VI oblong (Fig. 179); metatibia longer than width of abdomen. Head mostly oblong. ♂: aedeagus with conspicuously acute apex and with two long rows of numerous (> 10) spines in internal sac. North Africa, Caucasus region, Middle Asia.....34

- Head and pronotum with less coarse and dense puncturation. Legs and antennae shorter; antennomere VI as wide as long or weakly transverse; metatibia shorter than width of abdomen. Head rarely oblong, usually as wide as long or transverse. ♂: aedeagus of different morphology.....12

12 Small species, body length approximately 2.8 mm. Forebody uniformly brown. ♂: apex of ventral process of aedeagus long and acute (Figs 204); internal structures distinctive (Fig. 205). Tajikistan (Map 23) ..... ***S. pennatus*** nov.sp.

- Size larger. ♂: aedeagus of different morphology .....13

13 Dorsal surface of head with distinct microsculpture .....14

- Dorsal surface of head in posterior half without distinct microsculpture .....15

14 Body more slender. Width of pronotum approximately 0.45-0.55 mm. ♂: ventral process of aedeagus not dentate subapically (Figs: AZ03). Distribution expansive Atlanto-Mediterranean; widespread in North Africa, Madeira, Azores, Western Europe, Italy, southwestern Central Europe (Map 5)***S. propinquus*** (BRISOUT DE BARNEVILLE)

- Body broader and larger. Width of pronotum approximately 0.60 mm. ♂: ventral process of aedeagus distinctly dentate subapically (Fig. 42). Southern Italy, Algeria, Tunisia (Map 12)..... ***S. algiricus*** (COIFFAIT)

15 Forebody of more or less uniformly yellowish brown to reddish coloration; head at most only slightly darker than pronotum .....16

- Head blackish brown to black, distinctly darker than pronotum .....18

16 ♂: Ventral process of aedeagus not dentate subapically (Figs: AZ03). Widespread in the Western Mediterranean: North Africa, Spain, France (Map 6) ... ***S. ovaliceps*** (FAUVEL)

- ♂: ventral process dentate subapically. Species endemic to the Baleares.....16

17 Elytra 0.75-0.85 times as long and approximately as wide or only indistinctly wider than pronotum. ♂: ventral process of aedeagus subapically more strongly dentate (ventral view) and with more massive apex (Figs 42-43). Mallorca (Map 11) ..... ..... ***S. mallorcensis*** (COIFFAIT)

- Elytra longer, 0.85-0.95 times as long and 1.1-1.2 times as wide as pronotum. ♂: ventral process of aedeagus subapically less strongly dentate (ventral view) and with less massive apex (Figs 48-49). Ibiza (Map 11)..... ***S. ibizae*** nov.sp.

18 ♂: ventral process of aedeagus in lateral view apically acute or truncate, subapically not dentate. (Note: subapical tooth-like processes may be visible in ventral view.) .....19

- ♂: ventral process of aedeagus in lateral view apically acute and subapically dentate, with pair of lateral teeth or with median tooth .....27

19 ♂: ventral process of aedeagus in lateral view apically acute.....20

- ♂: ventral process of aedeagus in lateral view more or less truncate (except for one species from Caucasus region), in ventral view with apex of more or less triangular shape, apically truncate, and subapically often with more or less pronounced, acute or rounded lateral projections ..... 24

20 ♂: sternite VII with conspicuous clusters of modified dark setae and with rather shallow posterior excision (Fig.: A95); aedeagus as figured in A95. Widespread from the western Caucasus region and NW-Turkey to southeastern Central Europe (Map 4) ..... ***S. fallax*** (LOKAY)

- ♂: sternite VII without conspicuous clusters of modified dark setae and with deeper V-shaped posterior excision; ventral process of aedeagus of different shape..... 21

21 ♂: ventral process of aedeagus subapically angled in ventral view (Figs 36-40). Caucasus region: Armenia, Georgia, Iran (Map 8)..... ***S. fulgocephalus*** (COIFFAIT)

- ♂: ventral process of aedeagus subapically not angled in ventral view..... 22

22 Elytra distinctly longer and larger than pronotum. ♂: aedeagus as figured in A02. Iran..... ***S. iranicus*** ASSING

- Elytra mostly shorter than pronotum. ♂: aedeagus with apex of ventral process of distinctive shape, especially in lateral view (Figs: A95, A01a). Widespread, but unknown from Iran..... 23

23 Elytra usually longer than pronotum; hind wings usually reduced. ♂: aedeagus with apex of ventral process weakly bent in lateral view (Figs: A95, A01a). Widespread trans-Palaearctic species, from Eastern Russia to France and NE-Spain (Maps 2-3)..... ***S. melanocephalus melanocephalus*** (FABRICIUS)

- Elytra usually shorter than pronotum; hind wings usually fully developed. ♂: aedeagus with apex of ventral process more strongly bent in lateral view (Figs: A95, A01a). SW- and W-Anatolia; Greece: Lesbos (Map 2)..... ***S. melanocephalus anatolicus*** ASSING

24 ♂: ventral process of aedeagus subapically with pronounced lateral projections (Figs: A01a). Turkey, Iran, ?Syria (Map 9)..... ***S. adanensis*** (LOKAY) (macropterous morph)

- ♂: ventral process of aedeagus subapically with less pronounced lateral projections ..... 25

25 ♂: ventral process of aedeagus very stout in lateral view, broadly truncate apically (Figs 37-38). Israel, Lebanon (Map 9) ..... ***S. falsus*** nov.sp.

- ♂: ventral process of aedeagus less stout in lateral view, more narrowly truncate apically..... 26

26 ♂: ventral process of aedeagus in ventral view with small, but distinct tooth-like lateral projections subapically; internal rod-like structure dark brown to blackish (Figs: A01a). Distribution: Turkey, Armenia, Georgia, Iran (Map 10) ..... ***S. khnzoriani*** (COIFFAIT) (macropterous morph)

- ♂: ventral process of aedeagus in ventral view without lateral projections; internal rod-like structure pale brown (Figs: A01a). S-Turkey (Map 10)..... ***S. rastrifer*** ASSING (macropterous morph)

27 Species from Europe and North Africa. Pronotum and elytra more or less reddish. ♂: posterior excision of sternite VIII unmargined and not distinctly U-shaped..... 28

- Species from Middle Asia and the region to the north of the Caspian Sea. ♂: posterior excision of sternite VIII distinctly U-shaped and finely margined..... 31

28 ♂: ventral process of aedeagus subapically with median tooth-like projection (Figs: A03b). Iberian Peninsula..... ***S. meybohmi*** ASSING

- ♂: ventral process of aedeagus subapically with pair of lateral tooth-like projections..... 29

29 ♂: ventral process very long and straight (Figs C84). Atlanto-Mediterranean distribution, widespread from the Iberian Peninsula and Italy to Central Europe and southern Scandinavia (Map 11)..... ***S. bicolor*** (OLIVIER)

- ♂: ventral process shorter. Distribution confined to Italy..... 30

30 ♂: aedeagus as figured in AZ03. Sicily ..... ***S. martinarum*** ADORNO & ZANETTI

- ♂: aedeagus as figured in AZ03. Mainland Italy (Map 12) ..... ***S. italicus*** (COIFFAIT)

31 ♂: ventral process of aedeagus subapically with pronounced median tooth-like projection (Figs 71-75). Kazakhstan, Kyrgyzstan ..... ***S. mordicus*** nov.sp.

\- ♂: ventral process of aedeagus subacially with pair of smaller lateral projections..... 32

32 ♂: aedeagus with 2-3 short dark spines in internal sac (Figs 55-63). Tajikistan, Iran (Map 13)..... ***S. praecisus*** nov.sp.

\- ♂: aedeagus with distinctly longer spines in internal sac ..... 33

33 Pronotum and elytra often reddish. ♂: aedeagus slightly smaller; basal internal structures shorter and less massive, apical internal structures less prominent (Figs 52-54). Middle Asia, Russia, NW-China (Map 13)..... ***S. nigrinus*** (EPPELSHEIM)

\- Whole body blackish brown to black. ♂: aedeagus larger and with more massive internal structures (Figs 65-67). Afghanistan ..... ***S. afghanicus*** (COIFFAIT)

34 Rather small, slender, and pale-coloured species (Fig. 208); head and pronotum reddish; elytra bicoloured with the anterior 1/3 blackish (or nearly so) and the posterior 2/3 reddish yellow. ♂: unknown. Azerbaijan (Map 22)..... ***S. basalis*** (REITTER)

\- Larger species. Head and pronotum in most species of dark coloration; elytra not bicoloured, uniformly reddish or dark..... 35

35 Forebody more or less uniformly reddish to castaneous ..... 36

\- Head dark brown to blackish..... 37

36 ♂: aedeagus with long and very acute (lateral view), laterally not compressed ventral process (Figs 165-172). Middle Asia (Map 22)..... ***S. claviceps*** (REITTER)

\- ♂: aedeagus with much shorter, apically rounded (lateral view), and laterally compressed ventral process (Fig. 162). Confirmed records only from Algeria..... ***S. viator*** (FAUVEL)

37 Pronotum reddish to reddish brown, distinctly contrasting with the blackish head. ♂: posterior margin of sternite VII with deep and almost semi-circular concavity in the middle; aedeagus as in Figs 175-176, ventral process apically slender and gradually narrowed in ventral view. Tajikistan (Map 23) ..... ***S. wrasei*** (SCHÜLKE)

\- Pronotum blackish brown to black, of similar coloration as head. ♂: posterior margin of sternite VII moderately concave in the middle (Figs 180, 188); ventral process of aedeagus of different shape..... 38

38 Head more slender, 1.08 times as long as wide, posteriorly tapering. Eyes more prominent (Fig. 178). Elytra approximately 1.2 times as long and 1.3 times as broad as pronotum, the latter more slender, about 1.10-1.15 times as long as wide (Figs 177-178). ♂: aedeagus with ventral process of broadly triangular shape in ventral view (Figs 182-185). Turkmenistan (Map 22)..... ***S. splendidulus*** (BOHÁČ)

\- Head broader, < 1.05 times as long as wide, and posteriorly not tapering. Elytra much shorter, approximately as long and 1.10-1.15 times as wide as pronotum, the latter approximately 1.05 times as long as wide and 0.90-.0.95 times as wide as head (Figs 186-187). ♂: ventral process of aedeagus apically abruptly narrowed and extremely acute in ventral view (Figs 190-191). Tajikistan, Uzbekistan, Turkmenistan (Map 22) ..... ***S. acutissimus*** nov.sp.

39 Species from Tajikistan (Map 23) ..... 40

\- Species absent from Middle Asia..... 41

40 ♂: posterior margin of sternite VII indistinctly concave (Fig. 196); posterior excision of sternite VIII moderately deep and broadly V-shaped (Fig. 197); aedeagus in lateral view with apically acute and subapically moderately angled ventral process; internal sac with two rows of relatively long and slender spines (Figs 194-195)... ***S. bohaci*** nov.sp.

\- ♂: posterior margin of sternite VII distinctly concave in the middle (Fig. 201); posterior excision of sternite VIII slightly deeper and narrower (Fig. 202); ventral process of aedeagus in lateral view subapically strongly bent; internal sac with two rows of stouter and more strongly sclerotised spines (Figs 199-200)..... ***S. inflexus*** nov.sp.

41 Species from Greece, Turkey, the Caucasus region, and the Middle East ..... 42

\- Distribution different..... 70

42 Species from Greece ....43
- Species from Turkey, the Caucasus region, and the Middle East....45
43 2.7-3.0 mm. Whole body of reddish yellow coloration. ♂: sternite VIII with pubescent tubercle (Fig. 159); aedeagus as in Figs 156-158. Pelopónnisos: Menalon Oros (Map 7) .... ***S. menalonicus*** nov.sp.
- Slightly or distinctly larger species. Abdomen blackish; head usually at least slightly darker than pronotum. ♂: sternite VIII without tubercle; aedeagus of different morphology ....44
44 Slightly larger species. ♂: ventral process of aedeagus stouter and smoothly curved in lateral view; internal structures large and weakly sclerotised (Figs: C84). Confirmed records only from Corfu and the Pelopónnisos (Map 7) ....***S. hellenicus*** (COIFFAIT)
- Smaller species. ♂: ventral process longer and more slender; internal structures small and blackish (Figs: AW01). Southern mainland Greece, northern Pelopónnisos (Map 7) .... ***S. fokisensis*** ASSING & WUNDERLE
45 Species from Middle East south of Turkey ....46
- Species from Turkey, the Caucasus region, and Iran ....49
46 Species from Jordan (Map 14). ♂: unknown ....***S. klapperichi*** (COIFFAIT)
- Distribution different....47
47 ♂: aedeagus as illustrated in C84. Antilebanon, Mount Hermon, and Golan Heights (Syria, Israel) (Map 14)....***S. hypogaeus*** (FAUVEL)
- Species from Lebanon (Map 14). ♂: aedeagus of different morphology....48
48 ♂: sternite VIII with rather broad and deep posterior excision, anterior to this excision with weakly elevated oblong non-pubescent carina extending approximately to anterior third of sternite, at apex of excision with cluster of short setae (Fig. 78); aedeagus with smaller and less strongly sclerotised species (Figs 76-77) ....***S. renouardi*** (COIFFAIT)
- ♂: sternite VIII with shallow posterior excision, without carina or tubercle (Fig. 82); aedeagus with distinctly larger and more strongly sclerotised spines in internal sac (Figs 79-81)....***S. spinosissimus*** nov.sp.
49 Larger species, body size in normal preparation >3.0 mm. Head relatively smaller, approximately as wide as or narrower than pronotum. Eyes at least half the length of postgenae in dorsal view, or nearly so. ♂: sternite VIII without tubercle or process; aedeagus with stout and relatively short ventral process, in ventral view often with lateral subapical projections and apically truncate, in lateral view apically truncate; internal sac with long rod-like structure in internal sac....50
- Smaller species, size (normal preparation) usually <3.4 mm. Head noticeably wider than pronotum. Eyes less than half – usually about one third – the length of postgenae in dorsal view. Forebody uniformly ferrugineous or testaceous. ♂: sternite VIII in posterior median area with densely pubescent tubercle, with conspicuous process, or without such modifications; ventral process of aedeagus more slender, in ventral view without lateral projections and apically not truncate, in lateral view apically not truncate; internal sac often with spines, but without rod. Southern and western Anatolia .... 54
50 Head usually of the same colour as pronotum. Endemic species of Ak Dağlar (Muğla) and Nur Dağları (Antakya)....51
- Head usually of darker colour than pronotum. More widespread species....52
51 ♂: ventral process of aedeagus in ventral view subapically with lateral projections (Figs: A05a). Muğla: Ak Dağlar (Map 10)....***S. akianus*** ASSING
- ♂: ventral process of aedeagus in ventral view subapically without lateral projections (Figs: A01a). Antakya: Nur Dağları (Map 10)....***S. nurdaghensis*** ASSING
52 ♂: ventral process of aedeagus subapically with larger (wing-like) lateral projections at a greater distance from apex (Figs: A01a). Widespread from central southern to eastern Anatolia and Iran (Map 9)....***S. adanensis*** (LOKAY) (micropterous morph)

- ♂: ventral process of aedeagus in ventral view subapically without or with smaller lateral projections nearer to apex .....53

53 ♂: ventral process of aedeagus in ventral view with small, but distinct tooth-like lateral projections subapically; internal rod-like structure dark brown to blackish (Figs: A01a). Distribution: Turkey, Armenia, Georgia, Iran (Map 10) ..... .....***S. khnzoriani*** (COIFFAIT) (micropterous morph)

- ♂: ventral process of aedeagus in ventral view without lateral projections; internal rod-like structure pale brown (Figs: A01a). S-Turkey (Map 10) ..... .....***S. rastrifer*** ASSING (micropterous morph)

54 ♂: sternite VIII without conspicuous modifications .....55

- ♂: sternite VIII either with distinct spine, tubercle, and/or with patch of tomentose or dense pubescence near posterior emargination .....63

55 ♂: aedeagus with series of distinctly sclerotised spines in internal sac .....56

- ♂: aedeagus without series of distinctly sclerotised spines in internal sac .....61

56 ♂: ventral process of aedeagus apically long and slender in lateral view; spines in internal sac of aedeagus shorter and/or apically distinctly curved. Central southern Anatolia.....57

- ♂: ventral process of aedeagus apically distinctly shorter and stouter; spines in internal sac of aedeagus conspicuously long and apically at most weakly curved. Western Anatolia.....60

57 ♂: ventral process of aedeagus in lateral view apically distinctly bent; internal sac of aedeagus with row of 3-4 spines of subequal length (plus smaller spines) (Figs: A05c). Antakya: Southern Nur Dağları..... ***S. amanensis*** ASSING

- ♂: ventral process of aedeagus in lateral view weakly curved at most; internal sac of aedeagus with one or two very large spines and additional distinctly smaller spines. Distribution different.....58

58 ♂: apex of ventral process of aedeagus in lateral view less slender; large spine in internal sac of aedeagus strongly curved (Figs: A05d). S-Malatya: Malatya Dağları..... ..... ***S. pauli*** ASSING

- ♂: apex of ventral process of aedeagus in lateral view more slender; large spine in internal sac of aedeagus moderately curved at most. Species from Kahramanmaraş.....59

59 ♂: sclerotised spines in internal sac shorter (Figs: A05d). Area to the west of Kahramanmaraş: Başkonuş Yaylası.....***S. brevispinosus*** ASSING

- ♂: sclerotised spines in internal sac longer (Figs. A05d). Area to the southwest of Kahramanmaraş..... ***S. longispinosus*** ASSING

60 Coloration of forebody usually yellowish brown to reddish brown, with the elytra sometimes darker than head and pronotum. ♂: ventral process of aedeagus shorter, in lateral view somewhat bent, and apically of distinctive shape, in ventral view apically rounded; internal sac of aedeagus with 5 darker and longer spines (Figs: A06a). Izmir/Aydın: Aydın Dağları.....***S. fortespinosus*** ASSING

- Coloration of forebody uniformly pale yellowish red. ♂: ventral process of aedeagus long, in lateral view straight, and apically of different shape, in ventral view apically almost acute; internal sac of aedeagus with 6 less dark and slightly shorter spines (Figs: A06a). Muğla: surroundings of Muğla..... ***S. sexspinosus*** ASSING

61 ♂: aedeagus subapically not dentate and with relatively short ventral process (Figs: A05a). Southwest of Antalya province: Dumanlı Dağı..... ***S. dumanlianus*** ASSING

- ♂: aedeagus subapically dentate and with longer ventral process. Distribution different..... .....62

62 Forebody darker and somewhat bicoloured: head dark brown, pronotum bright reddish, elytra brown. ♂: ventral process of aedeagus apically very slender and of distinctive shape; internal structures distinctive (Figs: A06a). Izmir: Boz Dağlar ..... .....***S. bozdagensis*** ASSING

- Forebody uniformly reddish. ♂: ventral process of aedeagus apically less slender and of different shape; internal structures of aedeagus different (Figs: A05c). Southern Antakya ..... ***S. hatayanus*** ASSING

63 Abdomen darker, distinctly contrasting with the rufous forebody. Species from the western Taurus and western Anatolia (Antalya, Muğla) ..... 64

- Abdomen more weakly infuscate, less distinctly contrasting with rufous forebody. Species from the eastern Taurus (Mersin and eastwards) ..... 67

64 ♂: sternite VIII with densely pubescent median tubercle (Fig.: A03a). Aedeagus shaped as in Figs: A03a, without sclerotized spines in internal sac. Southwestern Antalya: Ak Dağlar ..... ***S. brachati*** ASSING

- ♂: sternite VIII with median process or fin-like tubercle. Aedeagus of different shape. Species with more western distributions ..... 65

65 ♂: sternite VIII with conspicuous suberect median process (Figs. A05a). Aedeagus shaped as in Figs: A05a, with two semitransparent spines in internal sac. Muğla: Boncuk Dağı ..... ***S. aculeatus*** ASSING

- ♂: sternite VIII with fin-like tubercle. Aedeagus and distribution different ..... 66

66 ♂: process of sternite VIII posteriorly rounded in lateral view and apically acute in ventral view (Figs: A06a); ventral process of aedeagus apically less slender in lateral view (Figs: A06a). Izmir: surroundings of Karaburun ..... ***S. pinniger*** ASSING

- ♂: process of sternite VIII posteriorly obliquely truncate in lateral view and apically rounded in ventral view (Figs: A06a); ventral process of aedeagus apically more slender in lateral view (Fig.: A06a). Manisa: Karadağ ..... ***S. plasoni*** (EPPELSHEIM)

67 ♂: apical part of ventral process of aedeagus shorter and stouter, ventral outline in lateral aspect not distinctly concave (Figs: A05c). Mersin ..... ***S. goektepensis*** ASSING

- ♂: apical part of ventral process of aedeagus longer and more slender, ventral outline in lateral view concave ..... 68

68 ♂: tubercle of abdominal sternite VIII with shorter pubescence; ventral process of aedeagus with very long and slender apical part and with more weakly concave basal part (lateral view); spines in internal sac smaller (Figs: A01a). NW-Mersin ..... ***S. tuberiventris*** ASSING

- ♂: tubercle of abdominal sternite VIII with longer pubescence; ventral process of aedeagus with shorter apical part and with strongly concave basal part (lateral view); spines in internal sac larger (Figs: A01a) ..... 69

69 ♂: aedeagus with apical part of ventral process longer and more slender, and with basal part of ventral process less broadly concave; spines in internal sac smaller (Figs: A01a). W-Mersin ..... ***S. wunderlei*** ASSING

- ♂: aedeagus with apical part of ventral process shorter and stouter, and with basal part of ventral process more broadly concave; spines in internal sac larger (Figs: A01a). E-Mersin ..... ***S. balkarensis*** ASSING

70 Species from Italy ..... 71

- Distribution different ..... 74

71 Species from Sicily ..... 72

- Species from Sardinia and southern mainland Italy ..... 73

72 ♂: aedeagus as illustrated in AZ03. Sicily: Nebrodi: Bosco di Malabotta ..... ***S. georgii*** ADORNO & ZANETTI

- ♂: aedeagus as illustrated in AZ03. Sicily: Environs of Ficuzza ..... ***S. ignatii*** ADORNO & ZANETTI

73 Forebody yellowish to yellowish brown. ♂: sternite VIII with pubescent tubercle; aedeagus with apex in lateral view acute and in ventral view broadly rounded; spines in internal sac more slender (Figs: AZ03). Southern Italy: Puglia (Map 21) ..... ***S. puglianus*** (COIFFAIT)

- Forebody brown to dark brown. ♂: sternite VIII with weakly defined elevation (Figs 149-150); aedeagus with apex in lateral view not distinctly acute and in ventral view more slender (Figs. 151-152); spines in internal sac stouter (Fig. 153). Sardinia (Map 21) ..... ***S. sardus*** nov.sp.

74 Species from France and northern Spain.....75

- Distribution different.....77

75 ♂: sternite VIII without tubercle or keel, posterior excision moderately deep; aedeagus with few weakly sclerotised spines in internal sac (Fig. 130-131). France: southern Massif Central (Map 15) ..... ***S. seminiger*** (FAIRMAIRE)

- ♂: sternite VIII with median tubercle or keel; aedeagus of different morphology. Distribution different.....76

76 ♂: sternite VIII with distinctly elevated median keel (visible in lateral view); aedeagus with apical part of ventral process longer (Figs: C84; as *S. franzi*). Eastern Pyrénées. (Map 15)..... ***S. brachypterus*** (GEMMINGER & HAROLD)

- ♂: sternite VIII with weakly elevated tubercle (Fig. 85); aedeagus with apical part of ventral process distinctly shorter (Figs 83-84). NE-Spain (Map 15)..... ..... ***S. catalonicus*** (COIFFAIT)

77 Species from southern Spain and the extreme north of Morocco (environs of Tanger) ....78

- Species from North Africa, except the surroundings of Tanger (Morocco) .....84

78 ♂: posterior margin sternite of VII with projection of semi-circular shape in the middle; sternite VIII with moderately deep posterior excision, otherwise unmodified. Aedeagus with very small and weakly sclerotised spines in internal sac (Figs: A03b). Andalucía: Sierra de Cazorla (Map 16)..... ***S. cazorlae*** ASSING

- ♂: sternite VII unmodified.....79

79 ♂: aedeagus with spines in internal sac .....80

- ♂: aedeagus without distinct spines in internal sac.....83

80 Head with conspicuously dense and coarse puncturation; interstices narrower than diameter of punctures, except for small median dorsal area with slightly sparser puncturation. Body slightly larger. Abdomen of similar coloration as forebody or slightly darker at most. ♂: sternite VIII with weakly elevated tubercle with somewhat denser pubescence, posterior excision very shallow; aedeagus with few short and rather weakly sclerotised spines in internal sac (Figs: AZ03). Southern Andalucía, extreme north of Morocco (environs of Tanger) (Map 17)..... ***S. simoni*** (QUEDENFELDT)

- Head with sparser puncturation; interstices on average wider than diameter of punctures. Body slightly smaller. Abdomen usually distinctly darker than forebody. ♂: primary and secondary sexual characters different .....81

81 ♂: sternite VIII with distinct median process visible in lateral view, posterior excision relatively small; aedeagus with apex of ventral process of highly distinctive shape (Figs: C84). Andalucía: Sierra de las Nieves (Map 17)..... ***S. confusus*** (COIFFAIT)

- ♂: sternite VIII without process, with indistinct tubercle at most; aedeagus of different shape .....82

82 ♂: sternite VIII with weakly elevated pubescent tubercle, posterior excision moderately deep; ventral process of aedeagus longer and more slender (ventral view); internal sac with row of strongly sclerotised and apically distinctly curved spines (Figs: A03b). Andalucía: Sierra de Segura (Map 16)..... ***S. segurae*** ASSING

- ♂: sternite VIII without tubercle, posterior excision deep and narrow (Fig. 90); ventral process of aedeagus in ventral view shorter and broader (Figs. 87-88); internal sac with row of moderately curved spines (Fig. 89). Andalucía: Sierra Nevada (Map 16)..... ..... ***S. nevadensis*** (COIFFAIT)

83 ♂: sternite VIII without tubercle, posterior excision moderately deep and U-shaped (Fig. 99); aedeagus with ventral process apically acute in ventral view (Figs 97-98). Castilla-La Mancha: Ciudad Real (Map 15) ..... ***S. calatravae*** nov.sp.

- ♂. sternite VIII with weakly elevated tubercle, posterior excision V-shaped; aedeagus with ventral proces apically rounded in ventral view. Distribution different ..... 84

84 ♂: sternite VIII with posterior excision broad and shallow (Fig. 94); ventral process of aedeagus shorter and broader in ventral view (Figs 95-96). Andalucía: Jaén: Sierra Magina (Map 16) ..... ***S. behnei*** nov.sp.

- ♂. sternite VIII with posterior excision narrower and deeper (Fig. 102); ventral process of aedeagus longer and more slender in ventral view (Figs 100-101). Andalucía: Sierra de Cordoba (Map 17) ..... ***S. cordobanus*** nov.sp.

85 Species from Tunisia ..... 86

- Species from Morocco and Algeria ..... 88

86 ♂: sternite VIII with moderately deep V-shaped posterior excision, otherwise unmodified; aedeagus of highly distinctive morphology, ventral process apically almost hook-shaped in lateral view; internal sac with subapical structure of characteristic shape (Figs A05b). Surroundings of Teboursouk (Map 18) ***S. bihamatus*** ASSING

- ♂: sternite VIII with pubescent tubercle (Figs 109, 116); aedeagus of completely different morphology. Distribution different ..... 87

87 ♂: ventral process of aedeagus with longer and in lateral view more slender apical part; spines in internal sac more slender (Figs 103-107). Dorsale Range (Map 18) ..... ***S. tuniseus*** (COIFFAIT)

- ♂: ventral process of aedeagus with shorter and in lateral view stouter apical part; spines in internal sac stouter and shorter (Figs 110-115). NW-Tunisia (Map 18) ..... ***S. discretus*** nov.sp.

88 Species from Morocco ..... 89

- Species from Algeria ..... 93

89 Eyes smaller, approximately 1/5 the length of postocular region in dorsal view. ♂: sternite VIII with rather deep posterior excision, otherwise unmodified; aedeagus with conspicuously long and slender (lateral view) ventral process; internal sac with rather long and slender spines (Figs A01b). Haut Atlas (Map 19) ..... ***S. hastatus*** ASSING

- Eyes less reduced. ♂: sternite VIII with shallow or very shallow posterior excision and with keel, process, or tubercle; aedeagus of completely different morphology ..... 90

90 ♂: sternite VIII with pronounced median keel or with distinct process; aedeagus with distinctly sclerotised spines in internal sac ..... 91

- ♂: sternite VIII with pubescent tubercle; aedeagus of different shape and either without or with very weakly sclerotised structures in internal sac ..... 92

91 ♂: sternite VIII with distinct median keel-like elevation visible in lateral view (Figs 120-121); ventral process of aedeagus shorter and stouter apical part (lateral view) and with more slender spines in internal sac (Figs 117-119). N-Morocco: Jebel Zerhoun (Map 19) ..... ***S. gourvesi*** (COIFFAIT)

- ♂: sternite VIII with pronounced projection pointing postero-ventrad (Figs: A03b); ventral process of aedeagus with longer and more slender apical part (lateral view) and with stouter spines in internal sac (Figs: A03b). N-Morocco: southern Rif (Map 19) ..... ***S. fultus*** ASSING

92 Abdomen dark brown to blackish, distinctly contrasting with forebody. ♂: sternite VIII with shallow posterior excision (Fig. 124); aedeagus shaped as in Figs 122-123, with few weakly sclerotised spines in internal sac. Moyen Atlas (Map 19) ..... ***S. atlasicus*** (COIFFAIT)

- Abdomen of similar coloration as forebody, not distinctly darker. ♂: sternite VIII with very shallow posterior excision (Fig. 127); ventral process of aedeagus with conspicuously long and stout (lateral view) apical part; internal sac without sclerotised spines (Figs 125-126). Haut Atlas (Map 19) ..... ***S. montanellus*** (BORDONI)

93 ♂: sternite VIII with more or less pronounced median tubercle ..... 94

- ♂: sternite VIII without tubercle ..... 95

94 ♂: sternite VIII with pronounced median tubercle, in lateral view distinctly projecting postero-ventrad; aedeagus unknown. Region to the northwest of Oran ..... ..... ***S.*** **sp.** [*S. seminiger* partim)]

- ♂: sternite VIII with weakly elevated median tubercle (Fig. 146); aedeagus as in Figs 143-145, with row of distinctly sclerotised spines. Petite Kabylie: Djebel Ta Babor (Map 20)..... ***S. baboricus*** nov.sp.

95 ♂: aedeagus without spines in internal sac; posterior excision of sternite VIII shallow to moderately deep (Figs 129, 134).....96

- ♂: aedeagus with spines in internal sac; posterior excision of sternite VIII deep and distinctly V-shaped (Figs 138, 142) .....97

96 ♂: sternite VIII with shallow posterior excision (Fig. 134); aedeagus with straight ventral process (Figs 132-133). Central northern Algeria: Theniet el Had (Map 20)..... ..... ***S. rectus*** nov.sp.

- ♂: sternite VIII with broad and moderately deep posterior excision (Fig. 129); ventral process of aedeagus of distinctive shape (Figs 128). NE-Algeria: environs of Annaba (Map 20)..... ***S. berberus*** (COIFFAIT)

97 ♂: ventral process of aedeagus apically of highly distinctive shape (Figs 135-136); spines in internal sac of conspicuous pectinate arrangement, long, semi-transparent, and curved (Fig. 137). Central northern Algeria: Theniet el Had (Map 20)..... ..... ***S. vaulogeri*** (COIFFAIT)

- ♂: ventral process of aedeagus long and slender (Figs 139-140); internal sac with four straight and weakly sclerotised spines (Fig. 141). Djebel Mouzaïa (Map 20)..... ..... ***S. mouzaianus*** nov.sp.

## 7. Names excluded from *Sunius*

### 7.1. *Luzea nigritula* (ERICHSON 1840)

*Hypomedon puncticeps* COIFFAIT 1971: 174; **nov.syn.**

T y p e m a t e r i a l e x a m i n e d : Holotype ♀: "Var - Frejus, Bord de l'Argens, I.69 / Holotype / Hypomedon puncticeps H. Coiffait 1971 / Luzea nigritula (Erichson) det. V. Assing 2007" (MNHNP).

C o m m e n t : The original description of *Hypomedon puncticeps* is based on a single female from "Fréjus, Bords de l'Argens (Var)" (COIFFAIT 1971). The holotype is a teneral specimen of *Luzea nigritula* (ERICHSON).

### 7.2. *Medon sericellus* (FAIRMAIRE 1860)

*Hypomedon troglophilum* [sic] JEANNEL & JARRIGE 1949: 367 f.; **nov.syn.**

*Hypomedon besucheti* BORDONI 1980c: 217 f.; **nov.syn.**

T y p e m a t e r i a l e x a m i n e d : Holotype ♂ [head and pronotum missing]: "Tunisie, Tunis, Belvedère, 3.IV.62, Cl. Besuchet / Holotypus / Hypomedon besucheti n. sp. det. Bordoni 1980 / Medon sericellus (Fairmaire), det. V. Assing 2007" (MHNG). Paratypes: 2♂♂: same data as holotype (MHNG).

C o m m e n t s : *Hypomedon troglophilus* was described from two syntypes from "Rhar-Adhid, ou Dar el Oued, grotte sur le littoral, entre Bougie et Djidjelli, près de Ziama, comm. de Tababort" (JEANNEL & JARRIGE 1949). The types were not found by the curator in charge at the MNHNP (TAGHAVIAN, e-mail 17.IX.2007). However, the illustration of the aedeagus and the morphological details indicated in the original description, as well as the redescription of the type specimens by COIFFAIT (1984) leave no doubt that the type specimens are conspecific with *Medon sericellus*, a species of the

*Medon apicalis* group and distributed in Algeria and Tunisia (ASSING 2006c).

The original description of *Hypomedon besucheti* is based on a holotype and 3 paratypes from "Tunisia, Tunisi Belvedere" (BORDONI 1980c). An examination of the holotype and 2 male paratypes revealed that *H. besucheti*, too, is conspecific with – and consequently a junior synonym of – *M. sericellus*.

### 7.3. *Cephisella nilotica* (KOCH 1934); nov.comb.

*Medon niloticus* KOCH 1934: 217 f.

C o m m e n t : The original description is based on an unspecified number of syntypes from "Kirdassah", "Sakkarah", and "Pyramiden von Ghizeh" (KOCH 1934). BORDONI (1980b) studied a male from Kirdassah, figured the aedeagus, and moved the species to *Sunius*. However, the illustration suggests that the species does not refer to *Sunius*, but to *Cephisella* FAGEL 1961.

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## Zusammenfassung

Typen und weiteres Material westpaläarktischer und mittelasiatischer *Sunius*-Arten werden revidiert, unter besonderer Berücksichtigung bisher unrevidierter Arten der Westmediterraneis, Nordafrikas, des Nahen Ostens und Mittelasiens. Nach Revision umfasst die *Sunius*-Fauna des Untersuchungsgebiets 94 valide Arten und 3 Unterarten, die 6 Artengruppen zugeordnet werden. Die Mehrheit der Arten hat reduzierte Flugorgane und ist mehr oder weniger lokalendemisch verbreitet. Die Diversität ist am höchsten im Mittelmeerraum; allein 24 Arten sind aus der Türkei bekannt. Für etwas 70 Arten werden Diagnosen erstellt. 19 Arten und Unterarten werden erstmals beschrieben und abgebildet: *Sunius brevipennis gomerensis* **nov. ssp.** (Kanarische Inseln: La Gomera); *S. falsus* **nov.sp.** (Israel, Libanon); *S. ibizae* **nov.sp.** (Spanien: Balearen: Ibiza); *S. praecisus* **nov.sp.** (Tadschikistan, Iran); *S. mordicus* **nov.sp.** (Kirgistan, Kasachstan); *S. spinosissimus* **nov.sp.** (Libanon); *S. behnei* **nov.sp.** (Spanien: Andalusien: Sierra Magina); *S. calatravae* **nov.sp.** (Spanien: Ciudad Real); *S. cordobanus* **nov.sp.** (Spanien: Andalusien: Sierra de Córdoba); *S. discretus* **nov.sp.** (Tunesien); *S. rectus* **nov.sp.** (Algerien: Theniet el Had); *S. mouzaianus* **nov.sp.** (Algerien: Mouzaïa); *S. baboricus* **nov.sp.** (Algerien: Djebel Ta Babor); *S. sardus* **nov.sp.** (Italien: Sardinien); *S. menalonicus* **nov.sp.** (Griechenland: Peloponnes); *S. acutissimus* **nov.sp.** (Tadschikistan, Usbekistan, Turkmenistan); *S. bohaci* **nov.sp.** (Tadschikistan); *S. inflexus* **nov.sp.** (Tadschikistan); *S. pennatus* **nov.sp.** (Tadschikistan). Folgende Synonymien werden festgestellt bzw. bestätigt: *Sunius melanocephalus* (FABRICIUS 1793) = *S. affinis* (KRAATZ 1859), = *S. armeniacus* (COIFFAIT 1970), **nov.syn.**; *S. ovaliceps* (FAUVEL 1878) = *S. fagniezi* (PEYERIMHOFF 1916), **nov.syn.**, = *S. peyerimhoffi* (COIFFAIT 1961), **nov.syn.**, = *S. valentianus* (COIFFAIT 1980), **nov.syn.**, = *S. murciensis* (COIFFAIT 1980), **nov.syn.**, = *S. deharvengi* (COIFFAIT 1980), **nov.syn.**; *S. adanensis* (LOKAY 1919) = *S. phasianus* (BORDONI 1980), **nov.syn.**; *S. khnzoriani* (COIFFAIT 1970) = *S.*

*dolabrifer* ASSING 2001, **nov.syn.**; *S. bicolor* (OLIVIER 1795) = *S. ruficollis* (KRAATZ, 1857); *S. nigrinus* (EPPELSHEIM 1892) = *S. picinus* (BERNHAUER 1902), **nov.syn.**, = *S. meuseli* (BERNHAUER 1905), **nov.syn.**, = *S. lebedevi* (ROUBAL 1926), **nov.syn.**; *S. plasoni* (EPPELSHEIM 1875) = *S. pinnatus* ASSING 2006, **nov.syn.**; *S. brachypterus* (GEMMINGER & HAROLD 1868) = *S. pyrenaeus* (COIFFAIT 1961), **nov.syn.**, = *S. franzi* (COIFFAIT 1970), **nov.syn.**; *S. seminiger* (FAIRMAIRE 1860) = *S. aveyronnensis* (MATHAN 1862), **resyn.**; *S. simoni* (QUEDENFELDT 1881) = *S. nitidus* (QUEDENFELDT 1881), **nov.syn.**, = *S. politus* (QUEDENFELDT 1883), **nov.syn.**, = *S. nitens* (DUVIVIER 1883), **nov.syn.**, = *S. quedenfeldti* (EPPELSHEIM 1883), **nov.syn.**; *Luzea nigritula* (ERICHSON 1840) = *Hypomedon puncticeps* COIFFAIT 1971, **nov.syn.**; *Medon sericellus* (FAIRMAIRE 1860) = *Hypomedon troglophilus* JEANNEL & JARRIGE 1949, **nov.syn.**, = *H. besucheti* BORDONI 1980, **nov.syn.** *Sunius rastrifer* ASSING 2001, bisher Synonym von *S. dolabrifer*, und *S. nigrinus* (EPPELSHEIM 1892), bisher Synonym von *S. bicolor*, werden revalidiert. *Sunius melanocephalus anatolicus* ASSING 1995 und *S. brevipennis canariensis* (BERNHAUER 1928) erhalten den Status von Untarten. Für *Lithocharis brachyptera* GEMMINGER & HAROLD 1868 wird ein Neotypus designiert. Für die folgenden Namen werden Lectotypen designiert: *Medon fagniezi* PEYERIMHOFF 1916, *Medon nigrinus* EPPELSHEIM 1892, *Medon picinus* BERNHAUER 1902; *Lithocharis seminigra* FAIRMAIRE 1860, *Lithocharis simoni* QUEDENFELDT 1881, *Medon viator* FAUVEL 1886. Die bisher zu *Sunius* gestellte Art *Medon niloticus* KOCH 1934 erhält das Binomen *Cephisella nilotica*, **nov.comb.** Daten zu Ökologie, Bionomie und Verbreitung insbesondere der weiter verbreiteten Arten werden zusammengestellt und diskutiert. Die Verbreitungsgebiete von 60 Arten werden anhand von Karten illustriert. Eine Bestimmungstabelle und ein Katalog werden erstellt.

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