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A review of *Sciaphobus* (*Neosciaphobus*) and descriptions of new species of *Sciaphobus* s. str. (Coleoptera: Curculionidae)

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Abstract. The subgenus *Neosciaphobus* Apfelbeck, 1922 of the genus *Sciaphobus* K. Daniel, 1904 (Coleoptera: Curculionidae: Entiminae: Sciaphilini) is discussed, revised, redefined, redescribed and keyed. All included species are redescribed and illustrated. A review of the species of the subgenus Sciaphobus s. str. without long elytral erect setae is given. Sciaphobus (Neosciaphobus) angustus sp. nov. from Albania, S. (Sciaphobus) formaneki sp. nov., and S. (Sciaphobus) pelikani sp. nov. from Montenegro are described and compared with similar species. Four new synonymies are proposed: Sciaphobus curvimanus Apfelbeck, 1922 = S. muelleri Penecke, 1928 syn. nov.; S. squalidus (Gyllenhal, 1834) = Sciaphobus balcanicus Apfelbeck, 1922 syn. nov. = Sciaphobus squalidus alternans Apfelbeck, 1922 syn. nov. = Sciaphobus squalidus ovalipennis Apfelbeck, 1922 syn. nov. A neotype for Sciaphilus subnudus Desbrochers des Loges, 1892 is designated; lectotypes for the following species are designated: Eusomus setosulus Germar, 1824, Polydrusus squalidus Gyllenhal 1834, Polydrusus vittatus Gyllenhal, 1834, Sciaphilus beckeri Stierlin, 1863, Sciaphobus balcanicus Apfelbeck, 1922, Sciaphobus scheibeli Apfelbeck, 1922, Sciaphilus smaragdinus Boheman, 1840, and Thylacites ningnidus Germar, 1824. Sciaphobus rasus (Seidlitz, 1867) is tranferred from the subgenus Neosciaphobus to the nominotypical subgenus. All the examined types of both subgenera are commented on. Female genitalia of the genus are studied and illustrated for the first time. The following new country records are presented: Sciaphobus ningnidus from Croatia and Montenegro, S. reitteri from Croatia, and S. squalidus from Moldova and Greece.

Key words. Coleoptera, Curculionidae, Entiminae, Sciaphilini, *Sciaphobus*, *Neosciaphobus*, taxonomy, new species, neotype designation, lectotype designation, new synonymy, new combination, check-list, Europe, Palaearctic Region

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Introduction

Sciaphobus K. Daniel, 1904 is morphologically quite uniform and well defined genus of Sciaphilini, including 22 species recognized in this paper. The genus is distributed mainly in the countries of former Yugoslavia where about half of the species occur; Turkey, Ukraine, Moldova, and the European part of Russia form the eastern limit of its distribution. The northern limit of the genus lies in central Europe with six known species. However, S. rubi (Gyllenhal, 1813) (now synonym of S. ningnidus (Germar, 1824)) was described from the Swedish province of Skåne, although no new records have been reported from Scandinavia during the last century. The western limit of occurrence of Sciaphobus is Italy with five known species (BOROVEC 2013).

The majority of studies dealing with species presently placed in *Sciaphobus* were published at the turn of the 19th and 20th century. *Curculio rubi* was the first species of the genus, described by Gyllenhal (1813), who later described also three additional species in *Polydrusus* Germar, 1817 (Gyllenhal 1834, 1840). Germar (1824) described another three species in *Eusomus* Germar, 1824. Subsequent authors to describe other species were: Seidlitz (1867), Hampe (1870), Stierlin (1884), Desbrochers des Loges (1871, 1892), K. Daniel (1904), and Apfelbeck (1908).

FAUST (1891) described the genus *Heliophilus*, based mainly on absence of humeral calli and short scapus, and included eight species: *S. barbatulus* (Germar, 1824), *S. caesius* (Hampe, 1870), *S. rasus* (Seidlitz, 1867), *S. rubi* (Gyllenhal, 1813), *S. scitulus* (Germar, 1824), *S. smaragdinus* (Boheman, 1840), *S. squalidus* (Gyllenhal, 1834), and *S. vittatus* (Gyllenhal, 1834), previously placed in *Eusomus*, *Polydrusus* and *Sciaphilus* Schoenherr, 1823. However, the name *Heliophilus* turned out to have been already used four times in zoology (twice in Diptera, once in Coleoptera, and once in Reptilia), therefore K. Daniel (1904) proposed a new substitute name *Sciaphobus* for *Heliophilus* Faust, 1891.

APFELBECK (1922) reviewed *Sciaphobus*, described seven additional new species and two new subspecies, provided illustrations of aedeagi of the new species, summarized the known occurrence of all species, split the genus into two subgenera, and proposed a key to all known taxa. The total of the species was completed by Penecke (1928). Pesarini (1980), and Francia (1986) transferred to *Sciaphobus* two species described originally in *Polydrusus*. Zherikhin & Egorov (1991) synonymized *Sciaphobus* with *Eudipnus* C. G. Thomson, 1859 (Entiminae: Polydrusini) without any comments. Alonso-Zarazaga & Lyal (1999) resurrected *Sciaphobus* and placed it among Sciaphilini Sharp, 1891 (Entiminae).

With the exception of the above-mentioned works, only a little has been done in *Sciaphobus* since 1930's and the genus has been mostly listed in catalogues (Winkler 1932, Dalla Torre et al. 1937, Alonso-Zarazaga & Lyal 1999, Borovec 2013).

The aim of the present paper is to redefine the subgenera of *Sciaphobus* and revise the subgenus *Neosciaphobus* Apfelbeck, 1922, based on study of available type material and recently collected material. All known species of *Neosciaphobus* are redescribed and illustrated. Additionally, we examined available types of the nominotypical subgenus and describe two new species in it.

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Material and methods

Body length of all specimens was measured in dorsal view from the anterior border of the eyes to the apex of the elytra, exluding the rostrum. Width/length ratio of the rostrum was measured as maximum width at base versus maximum length to the base of the mandibles. Width/length ratios of pronotum, elytra, antennal segments and tarsomeres were taken at the maximum width and length of the respective parts in dorsal view. Dissected male and female genitalia were studied in glycerine. Female genitalia were afterwards embedded in Solakryl BMX (Medika, Prague); male genitalia were mounted dry on the same card as the respective specimen.

Photos of genitalia were made using an Olympus BX40 microscope and combined in Zerene Stacker and GIMP2 softwares. Photos of adults were taken with Canon Powershot A640 and Canon EOS 550D cameras with an MP-E 65 mm macro lens and combined using CombineZM and GIMP2 softwares.

The terminology of the rostrum and the genitalia follows OBERPRIELER et al. (2014). The terminology of antennae is in accordance with curculionid literature with the numbering of antennomeres as follows: scape (I), funicle segments (II–VII), club (IX–XI).

The neotype and the lectotypes were designated according to the Article 74 and 75 of the International Code of Zoological Nomenclature (ICZN 1999), and all remaining specimens of the respective type series were labelled as paralectotypes. For each species all known literature with the exception of small faunistics papers is also listed.

Specimens are deposited in the following museums and private collections:

APBH	Attila Podlussány private collection, Budapest, Hungary;
HNHM	Természettudományi Múzeum, Budapest, Hungary (Gyözö Szél);
JFHC	Jan Fremuth private collection, Hradec Králové, Czech Republic;
JKHC	Jiří Krátký private collection, Hradec Králové, Czech Republic;
JPHC	Jan Pelikán private collection, Hradec Králové, Czech Republic;
JSOC	Jiří Stanovský private collection, Ostrava, Czech Republic;
JSPC	Jiří Skuhrovec private collection, Prague, Czech Republic;
MKBC	Michael Košťál private collection, Brno, Czech Republic;
MLUH	Martin-Luther-Universität, Wissenschaftsbereich Zoologie, Halle, Germany (Karla Schneider);
MNHN	Muséum National d'Histoire Naturelle, Paris, France (Hélène Perrin);
NHMW	Naturhistorisches Museum Wien, Austria (Harald Schillhammer);
NHRS	Naturhistoriska Riksmuseet, Stockholm, Sweden (Bert Viklund);
NMPC	Národní Museum Prague, Czech Republic (Jiří Hájek);
PKSC	Petr Kresl private collection, Spule, Czech Republic;
RBSC	Roman Borovec private collection, Sloupno, Czech Republic;
RŠLC	Richard Škoda private collection, Liberec, Czech Republic;
SBPC	Stanislav Benedikt private collection, Plzeň, Czech Republic;
SDEI	Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany (Lutz Behne);
SMTD	Senckenberg Museum für Tierkunde, Dresden, Germany (Olaf Jäger);
ZSMG	Zoologische Staadtssammlung, München, Germany (Michael Balke).

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Taxonomy

Genus Sciaphobus K. Daniel, 1904

Heliophilus Faust, 1891: 249 (original description, junior homonym not Meigen, 1803). *Sciaphobus* K. Daniel, 1904: 86 (new substitute name).

Sciaphobus: Reitter (1913): 22 (key); Apfelbeck (1922): 59 (revision); Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 160 (catalogue); Smreczyński (1966): 81 (fauna); Angelov (1978): 59 (fauna); Dieckmann (1980): 251 (fauna); Podlussány (1996): 200 (check-list); Alonso-Zarazaga & Lyal (1999): 177 (catalogue); Benedikt et al. (2010): 107 (check-list); Borovec (2013): 385 (catalogue).

Type species. Eusomus scitulus Germar, 1824 (by original designation).

Diagnosis. Body length 3.0–7.3 mm; entire body densely covered with appressed scales, integument not visible; rostrum with basal half tapered apicad with straight sides and apical half distinctly enlarged apicad with straight or rounded sides, at apex wider than at base; frons large, not distinctly separated posteriorly by conspicuous carina; eyes large, placed near dorsal border of rostrum; head behind eyes without transversal carina; antennal scapes short, not reaching hind borders of eyes when folded, distinctly shorter than funicle; elytra without laterally projecting humeri, but their base is slightly wider than base of pronotum; metatibial corbels glabrous, without developed bevel; claws solidly fused in basal half; aedeagus long and slender, well sclerotised, temones about as long as body of aedeagus; tegmen with long parameres, free or fused in basal part; sternite VIII in females with apodeme 2.0–2.5× as long as plate, terminated inside plate which is umbrella-shaped, without basal margin and with narrow but distinct apical margin, bearing short setae.

Remarks. Whereas identification of the genus is, in contrast to the majority of other Entiminae genera, quite easy, recognition of the species of *Sciaphobus* is a rather difficult matter. The latest available key including almost all species is 90 years old and almost half of the species are impossible to identify without studying their types. Some species are very easy to recognise (e.g. *S. vittatus* (Gyllenhal, 1834)) while others are poorly defined (e.g. *S. megalopsis* Apfelbeck, 1922). Species with bright green adherent elytral scales and with long erect setae are particularly difficult and confusing, e.g. *S. barbatulus* (Germar, 1824) or *S. polydrosinus* (Apfelbeck, 1922). Unfortunately the situation is not an easy one to be solved as Apfelbeck often did not mention depositories of the type specimens, and his personal collection is housed and the National Museum of Bosnia and Herzegovina in Sarajevo. As a consequence, a revision of the nominotypical subgenus, although much needed, is impossible at the moment because many of the types are not available.

Subgenus Neosciaphobus Apfelbeck, 1922

Sciaphobus (Neosciaphobus) Apfelbeck, 1922: 60 (original description).

Sciaphobus (Neosciaphobus): Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 162 (catalogue); Smreczyński (1966): 81 (fauna); Dieckmann (1980): 251 (fauna); Podlussány (1996): 200 (check-list); Alonso-Zarazaga & Lyal (1999): 177 (catalogue); Benedikt et al. (2010): 107 (check-list); Borovec (2013): 385 (catalogue).

Type species. Curculio rubi Gyllenhal, 1813 (= Thylacites ningnidus Germar, 1824) by subsequent designation (Borovec 2013: 85).

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Diagnosis. Small to middle sized Sciaphilini; body densely scaled; rostrum in basal half tapered, in apical distinctly enlarged, at apex wider than at base; frons large; epistome inconspicuous; epifrons separated from head by shallow transversal depression; antennal funicles distinctly longer than scapes; scapes not reaching hind borders of eyes when folded; elytra short- to long-oval.

Redescription. Body length 3.1–7.3 mm. Body black; antennae and legs reddish or brownish, clubs and femora often darker. Elytra with rounded, short oval or long oval appressed scales, sparse or dense, brownish or greyish, mostly with intervals with one or two rows of very short and slender, indistinct, adherent setae, hardly visible in lateral view; elytral interval 7 and/or lateral intervals often lighter than colour of elytral intervals 1–6, only in *S. vittatus* with greenish scales on odd intervals. Pronotum with short or long oval scales directed transversally, with lateral longitudinal stripes made by lighter scales. Head and rostrum sparsely covered with slender scales. Antennal scapes and funicles with sparse, piliform setae, scapes with adherent, funciles with semierect setae; clubs with short adherent setae. Femora with long oval dense appressed setae; tibiae and tarsi with long, piliform, sparse, semiadherent setae. Abdominal ventrites densely or sparsely covered with long oval scales on ventrites 1 and 2, on ventrites 3–5 sometimes only in lateral parts, with semiadherent piliform setae.

Head (Figs 1A–L; 2A–L; 3A–D; 6A–N). Rostrum short to somewhat long with very similar shape in all species; basal half of rostrum tapered apicad with straight sides; apical half distinctly enlarged apicad with straight or rounded sides; rostrum at apex wider than at base. Frons large, flat or shallowly depressed; mostly shiny; on same level as epifrons or slightly angular in lateral view; with five pairs of slender, long setae. Epistome developed, inconspicuous, V-shaped, small, separated from frons by low carina. Epifrons weakly tapered basad, with distinct edges, at base somewhat narrower than space between eyes; flat, without carina or longitudinal furrow, separated from head by shallow, ill-defined transversal depression. Antennal scrobes in dorsal view visible in apical half as thin furrows, in lateral view furrow-shaped, well edged, glabrous in whole length; regularly curved; directed below eyes, reaching ventral border of rostrum. Eyes large, flat or convex, in lateral view placed near dorsal border of rostrum. Interocular space flat, in some species with narrow fovea. Head in dorsal view distinctly enlarged basad.

Antennae long and slender. Scapes very short, not reaching hind border of eyes when folded, 0.5–0.7× as long as funicles without clubs, slender in whole length, only in short apical part mallet-shaped enlargement. Funicle 7-segmented, segments long and slender, only in several species last two segments isodiametric or faintly transverse. Clubs long and slender, spindle-shaped.

Pronotum (Figs 1A–L; 2A–L; 3A–D) wide, with regularly rounded sides, without constriction behind anterior margin, with anterior margin slenderer than posterior one, regularly convex without longitudinal median carina or furrow, posterior margin straight; pronotum in lateral view with anterior margin straight, without setae.

Procoxal cavities contiguous, round, in middle of prosternum; procoxae subglobular. *Scutellum* small, triangular, glabrous or big, subquadratic, densely squamose.

Elytra (Figs 1A–L; 2A–L; 3A–D) short to long oval, in some species globose, with strongly rounded sides, at apex narrowly rounded, convex, base straight, shoulders regularly rounded

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or weakly laterally projecting; striae punctate, glabrous; intervals almost flat, wide, in some species even intervals narrower than odd ones.

Mesocoxae semiglobular, narrowly separate, mesosternal process narrow, densely squamose, not reaching posterior margin of mesocoxae. Metacoxae transverse, separated by metasternal process narrower than transverse diameter of metacoxa.

Legs. Femora medially swollen, unarmed or with tooth, tooth usually smaller in pro- and mesotibia, in some species different also between sexes. Tibiae long, slender, straight; protibiae laterally straight, medially distinctly enlarged inwards, mucronate, apically rounded, with fringe of fine and moderately long yellowish setae; metatibiae with corbels oval to long oval, glabrous, shiny, fringed by dense yellowish setae. Tarsi moderately robust; tarsomere I longer than II or III; tarsomere II short, conical; tarsomere III wide and bilobed, wider than the others; onychium short or as long as tarsomere III, only exceptionally longer. Claws fused in basal part, parallel in whole length.

Abdomen. Abdominal ventrites subtriangular, ventrite 1 in middle longer than ventrite 2; ventrite 2 about as long as ventrites 3 and 4 combined, ventrites 3 and 4 equally long; first suture sinuose, fine; second suture weakly arched or straight, third and fourth sutures straight, second to fourth sutures wide and deep; metaventral process narrow, arrowhead-shaped or rounded.

Sexual dimorphism. Pronotum and elytra in males in the majority of species narrower than in females. Rostrum in males of several species also narrower than in females. Tooth on all femora in males of several species more distinct and larger than in females. Funicle segments in females in all species slenderer than in males. Ventrite 5 in males shorter, subtrapezoidal, in females longer, subtriangular and more pointed.

Male genitalia. Aedeagus (Figs 7A–G) long and slender, well sclerotised, temones about as long as body of aedeagus and 1.5–2.0× as long as tegminal manubrium. Tegmen (Figs 8K, L) with moderately wide ring, with diameter shorter than length of its manubrium, with long parameres, very near base or solidly fused in basal part. Sternite IX (Fig. 8M) with spiculum gastrale moderately long, anteriorly curved and enlarged to form wide apical plate, posteriorly with fused basal arms.

Female genitalia. Gonocoxites (Fig. 8N) moderately long and slender, weakly tapered anteriad, flat, subtrapezoidal with long and slender apical styli with 3–5 setae. Sternite VIII (Fig. 8O) with long and slender apodeme, terminated just inside plate, apically divergent, plate umbrella-shaped, short and wide, with basal margin ill-defined and apical margin thin but distinct, fringed with short numerous setae. Spermatheca (Figs 8A–J) large, long and slender, U-shaped, with long, slender, regularly pointed and at midlength distinctly curved cornu, corpus long and slender, curved at midlength, ramus and nodulus differing among species, usually developed but in all species very short and small.

Differential diagnosis. See Table 1.

Biology. The adults are polyphagous on different plants, shrubs and trees, mostly in xerothermic habitats. DIECKMANN (1980) listed *Rubus idaeus* L. and *R. caesius* L. (Rosaceae) as host plants of *S. ningnidus* and mentioned the occurrence of *S. squalidus* in fruit nurseries in Russia. The latter species was beaten from *Salix* L. in Romania by the first author. Jiří Krátký (pers. comm.) swept the same species in Hungary and Romania from different plants of herbal layer, with dominance of *Aegopodium podagraria* L. KOCH (1992) quoted *S. scitulus*

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Table 1. Differential diagnosis of the subgenera of Sciaphobus K. Daniel, 1904.

Sciaphobus s. str.	Neosciaphobus Apfelbeck, 1922
Rostrum on the same level as the head.	Rostrum separated from head by transverse sulcus.
Frons separated from epifrons by narrow carina.	Carina between frons and epifrons absent.
Elytra with or without erect setae.	Elytra without erect setae.
Elytral vestiture green to brownish green, at most	Elytral vestiture grey or brown, at most with green stripes.
with brownish spot on the disc.	

as polyphagous on various species of *Centaurea* L. (Asteraceae), *Salvia* L. (Lamiaceae), *Anthyllis* L. (Fabaceae), and *Fragaria* L. (Rosaceae); and *S. rubi* on *Rubus caesius* L., *R. ideaus* L. Rheinheimer & Hassler (2010) quoted previously published information and listed *S. scitulus* as polyphagous species on *Centaurea scabiosa* L., *Salvia pratensis* L., *Anthyllis vulneraria* L., and *Fragaria vesca* L. (Dieckmann 1980), and *Medicago falcata* L. (Sprick & Schimdl 2004). Morphology of immature stages and biology are unknown. All species are amphigonic, except for *S. ningnidus* that is parthenogenetic through its range.

Distribution. The subgenus *Neosciaphobus* is mostly distributed in the Balkans. Six out of eight species live only there, each of them known only from a single country, and that would suggest that *Neosciaphobus* species have only a limited distribution. *Sciaphobus nignidus*, due to its parthenogenetic reproduction, was able to spread across central Europe and western part of Russia. The only widespread amphigonic species is *S. squalidus*, distributed from the Balkans to southern part of central Europe and eastwards to Kazakhstan.

Remarks. The subgenus *Neosciaphobus* was proposed by APFELBECK (1922) for taxa without long erect elytral setae and without transversal carina between epifrons and frons on rostrum, and included the following species: *S. balcanicus* Apfelbeck, 1922, *S. globipennis* Apfelbeck, 1922, *S. ningnidus* (Germar, 1824), *S. rasus* (Seidlitz, 1867), *S. reitteri* (Stierlin, 1884), *S. scheibeli* (Apfelbeck, 1922), *S. squalidus* (Gyllenhal, 1834), and *S. vittatus* (Gyllenhal, 1834). Subsequent authors listed the same *Neosciaphobus* species in various catalogues (Dalla Torre et al. 1937; Winkler 1932; Borovec 2013). Smreczyński (1966) and Dieckmann (1980) defined *Neosciaphobus* not only by the elytra lacking erect setae, but also by an additional character: adherent scales grey or with cupreous sheen. Dieckmann (1980) listed only two central European species of *Neosciaphobus*, *S. ningnidus* and *S. squalidus*.

APFELBECK (1922) omitted several species in his review of the genus, among them *S. abbreviatus* (Desbrochers des Loges, 1871) and *S. subnudus* (Desbrochers des Loges, 1892). Both have the elytra without erect setae, and they were listed in the nominotypical subgenus in the subsequent catalogues (Winkler 1932, Dalla Torre et al. 1937). As a matter of fact, the use of presence/absence of erect elytral setae as the main character at subgeneric level is misleading in Entiminae. For example, *Phyllobius glaucus* (Scopoli, 1763) and *P. pomaceus* Gyllenhal, 1834 are very similar and both belong to the subgenus *Metaphyllobius* Smirnov, 1913, although one of them has long elytral setae, whereas the second is lacking them. The same inconsistency occurs in other genera of Entiminae, e.g. in *Exomias* Bedel, 1883, *Omias* Germar, 1817, *Sitona* Germar, 1817. The colouration of adherent scales, green or greyish-brown, could also be used only as an additional feature. For example, *Sciaphobus dorsualis*

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(Gyllenhal, 1840) has green elytra with a large brownish spot covering the majority of elytral disc, therefore it is not possible to attribute it to any subgenus based only on the colour of elytral vestiture. The main character allowing separation of both subgenera of *Sciaphobus* is the presence or absence of 1) a narrow carina separating from from epifrons and 2) a transversal sulcus between the rostrum and the remaining parts of the head. The diagnostic characters separating *Neosciaphobus* from *Sciaphobus* are summarized in Table 1.

Among the twenty-two presently known species of *Sciaphobus* only seven have rostrum separated from the head by a transverse sulcus and frons not separated from the epifrons by a narrow carina. In addition, all but alternately striped S. vittatus have elytra without erect elytral setae and with grey or brown adherent elytral scales. We include the following species in Neosciaphobus: S. globipennis, S. ningnidus, S. reitteri, S. scheibeli, S. squalidus, S. subnudus, S. vittatus, and S. angustus sp. nov. The remaining fourteen species that have rostrum on the same level as the head and from separated from epifrons by a narrow carina belong to the nominotypical subgenus: S. abbreviatus (Desbrochers des Loges, 1871), S. barbatulus (Germar, 1824), S. caesius (Hampe, 1870), S. curvimanus Apfelbeck, 1922, S. dorsualis (Gyllenhal, 1840), S. heteromorphus Apfelbeck, 1922, S. megalopsis Apfelbeck, 1922, S. paliuri Apfelbeck, 1908, S. polydrosinus Apfelbeck, 1922, S. rasus (Seidlitz, 1887), S. scitulus (Germar, 1824), S. setosulus (Germar, 1824), and S. formaneki sp. nov. and S. pelikani sp. nov. described in this paper. All the above-mentioned species have: 1) elytral vestiture green, yellowish-green or brownish-green, except for S. dorsualis that has elytral vestiture green with a brown spot; 2) elytra with erect setae, except for S. abbreviatus, S. dorsualis, and S. rasus. The last is here newly transferred from the subgenus Neosciaphobus to the nominotypical subgenus, and then a new combination, Sciaphobus (s. str.) rasus comb. nov., is proposed.

The redescription of *Neosciaphobus* can also be used for *Sciaphobus* s. str., except for the characters on rostrum that separate both subgenera.

Sciaphobus (Neosciaphobus) angustus sp. nov.

(Figs 1A-B; 6A, 7A)

Type locality. Albania, Llogara.

Type material examined. HOLOTYPE: ♂, 'Albanien, Logara [= Llogara]' (SMTD), provided with an additional red printed label: 'HOLOTYPUS, Sciaphobus angustus spec. nov., R. Borovec et J. Skuhrovec det. 2014'.

Description (Figs 1A–B; 6A, 7A). Body length 4.31 mm. Body blackish, apical half of rostrum and apical margin of pronotum dark brownish; legs and antennae redish-brown, femora slightly darker, clubs distinctly darker. Elytra densely covered with light, greyish-brown, regularly rounded, and appressed scales of unequal size; four scales across one elytral interval, only elytral interval 3 with three scales across interval; elytral interval 3 and lateral elytral intervals with irregularly scattered, slightly larger whitish scales. Pronotum with dense, transversally directed short and long oval appressed scales of the same colour as elytral ones; lateral parts with larger, long oval whitish scales, forming indistinct lateral stripes visible in lateral view. Rostrum and head with light greyish-brown, short oval appressed scales, smaller than those on pronotum and elytra.

Head (Figs 1A–B; 6A). Rostrum slender, 1.06× as long as wide; in basal half distinctly tapered anteriad, in apical half significantly enlarged anteriad, with slightly rounded sides,

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rostrum at apex 1.13× wider than at base. Frons flat, moderately finely punctate, slightly more shiny than epifrons. Epifrons regularly punctate, matt. Eyes large, distinctly projecting beyond outline of head.

Antennae moderately slender; funicle segment I $1.70 \times$ as long as wide and $1.20 \times$ as long as II; segment II $1.70 \times$ as long as wide; segments III, IV and VI isodiametric; segment V $1.10 \times$ as long as wide; segment VII 1.1 as wide as long; club three times as long as wide.

Pronotum (Figs 1A–B) narrow, 1.13× as wide as long; widest behind midlength, with regularly rounded sides. Disc regularly punctate, moderately shiny, distance between two punctures as wide as puncture diameter.

Scutellum small, triangular, glabrous.

Elytra (Figs 1A–B) narrow, long oval, 1.21× as long as wide, with humeral calli regularly rounded, not projecting laterally. Striae glabrous, narrow but visible, finely punctate.

Legs. Pro- and mesofemora with very small, almost indistinct tooth; metafemora with small, sharp, but well visible tooth. Tarsomere II $1.1 \times$ as wide as long; tarsomere III $1.5 \times$ as wide as long and $1.4 \times$ as wide as II; onychium as long as tarsomere III.

Sexual dimorphism. Uknown.

Male genitalia. Aedeagus (Fig. 7A) long, in ventral view with slightly rounded sides in whole length and with regularly pointed apex; in lateral view regularly curved and equally wide in whole length; apex regularly pointed, with well visible short dent.

Differential diagnosis. The species is characterized by narrower body with rostrum longer than wide, pronotum only slightly wider than long (Fig. 1A), with regularly rounded and not pointed appressed elytral scales, aedeagus in ventral view with rounded sides in the whole length and in lateral view with distinct drop-shaped apex (Fig. 7A). This set of characters easily distinguishes *S.* (*N.*) angustus sp. nov. from all other species of the subgenus.

Etymology. The name 'angustus' (narrow) refers to the main distinguishing character of the species.

Distribution. Albania.

Sciaphobus (Neosciaphobus) globipennis Apfelbeck, 1922

(Figs 1E-H; 6B-C, 7B)

Sciaphobus (Neosciaphobus) globipennis Apfelbeck, 1922: 63 (original decription); Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 162 (catalogue); Borovec (2013): 385 (catalogue).

Type locality. 'Šen Thanas [Albania, Vlorë env., Shën Thanas]'

Type material examined. HOLOTYPUS: & (4.03 mm long), 'Sen Thanas [printed] / 1911 [printed], 28 [handwritten] / Staatl. Museum für Tierkunde, Dresden [printed] / HOLOTYPUS, Sciaphobus globipennis Apfelbeck, R. Borovec et J. Skuhrovec vid. 2014 [red, printed]'. (SMTD).

Additional material examined. ALBANIA: VLORE COUNTY: Llogara, 4 spec. (NMPC), 1 spec. (JFHC), 1 spec. (SMTD); M. I Çikes Mts., Palasë, 40°12′0″N, 19°35′4″E, 10.vi.2009, 1000 m, 1 spec., M. Košťál lgt. (MKBC); Šen Thanas [= Shën Thanas; the name refers to Saint Thanas but there are several places of this name], 2 spec. (SDEI); TIRANA COUNTY: Mal i Dajti [= Mali i Dajtit Mt.], 3 spec. (SMTD).

Redescription (Figs 1E–H; 6B–C, 7B). Body length 3.69–4.51 mm. Body black, frons reddish, antennae and legs redish-brown, in some specimens clubs and femora darker, dark brownish. Elytra with small, short oval, light brownish and appressed isolated scales, 7–8 scales across one elytral interval; elytral intervals 7 and 8 with slightly larger whitish-

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grey scales, identical scales also in short basal part of elytral interval 3 and irregularly sparsely scattered among brownish scales on whole elytra; all elytral intervals with 1–2 sparse, irregular rows of very short, slender, adherent and bronze setae, hardly visible also in lateral view. Pronotum with transversally directed long oval narrow brownish scales of unequal width, larger than elytral scales and with big long oval greyish scales forming inconspicuous longitudinal lateral stripes. Head with rostrum with sparse narrow, long oval scales, obliquely directed posteriad, almost regularly covering whole area, only around eyes scales larger and denser.

Head (Figs 1E–H; 6B–C). Rostrum isodiametric, in males somewhat slenderer than in females; basal half weakly tapered anteriad with straight sides, apical half distinctly enlarged anteriad with almost straight sides, at apex 1.07–1.13× as wide as at base. Frons glabrous, sparsely and finely punctate, shallowly depressed. Epifrons regularly densely punctate, somewhat matt. Interocular space with short fovea. Eyes small, convex, projecting beyond outline of head.

Antennae in females slenderer than in males; in males funicle segment I and II equally long, segment I $1.60-1.70\times$ as long as broad; segment II $1.50-1.60\times$ as long as broad; segment III and IV $1.1\times$ as long as broad; segment V and VI isodiametric; segment VII $1.1-1.2\times$ as broad as long; in females segment II $1.2\times$ as long as segment I; segment I $1.5-1.6\times$ as long as broad; segment II twice as long as broad; segments III—VI $1.4\times$ as long as broad; segment VII $1.1-1.2\times$ as long as broad; clubs $2.6-3.1\times$ as long as broad.

Pronotum (Figs 1E–H) wide, in males 1.18–1.23× as wide as long, in females 1.27–1.29× as wide as long; widest at midlength, with rounded sides, anteriad more tapered than posteriad; disc regularly and densely punctate, intervals among punctures form only narrow, shiny keels; disc with thin, impunctate, ill-defined longitudinal median area.

Scutellum small, triangular, glabrous.

Elytra (Figs 1E–H) short oval, somewhat globose; in males slightly narrower than in females, 1.26–1.28× as long as broad, whereas in females 1.24–1.26× as long as broad; humeral calli not projecting, regularly rounded; striae punctate, narrow; intervals wide and flat.

Legs. Pro- and mesofemora in males with small but distinct tooth; metafemora with big, conspicuous tooth; pro- and mesofemora in females with very small, almost indistinct tooth; metafemora with large tooth, somewhat smaller than in males. Tarsomere II $1.3-1.4\times$ as wide as long; tarsomere III $1.4\times$ as wide as long and $1.5-1.6\times$ as wide as II; onychium short, $0.7-0.8\times$ as long as tarsomere III.

Sexual dimorphism. For more details see rostrum, antennae, pronotum, elytra and femora. *Male genitalia*. Aedeagus (Fig. 7B) long and slender, in ventral view parallel-sided, apex regularly pointed, subtriangular, with indistinct concavity before apex; in lateral view regularly curved and of equal width in basal half and then regularly tapered apicad.

Female genitalia. Spermatheca (Fig. 8A) with ramus somewhat larger than hump-shaped nodulus.

Differential diagnosis. Among brownish species easily distinguishable by large tooth in metafemora in both sexes, females by wide elytra (Fig. 1G), males by aedeagus in lateral view tapered in apical half of the length (Fig. 7B).

Distribution. Albania.

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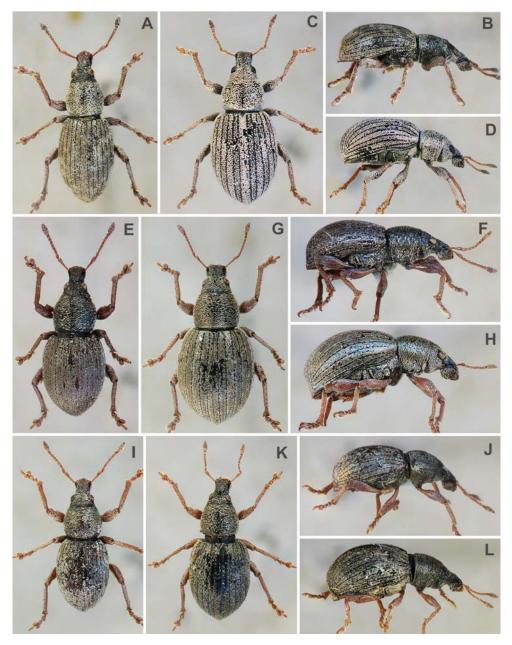


Fig. 1. Habitus of *Neosciaphobus* species. *Sciaphobus angustus* sp. nov.: Holotype, male (A – dorsal view; B – lateral view); *Sciaphobus ningnidus* (Germar, 1824): female (C – dorsal view; D – lateral view); *Sciaphobus globipennis* Apfelbeck, 1922: male (E – dorsal view; F – lateral view), female (G – dorsal view; H – lateral view); *Sciaphobus reitteri* (Stierlin, 1884): male (I – dorsal view; J – lateral view), female (K – dorsal view; L – lateral view).

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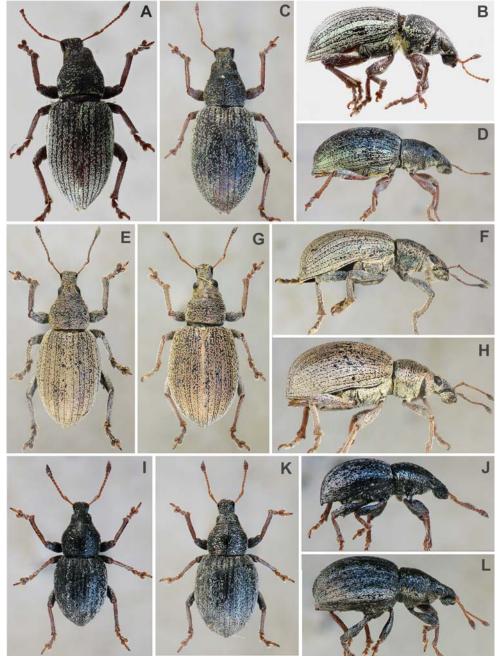


Fig. 2. Habitus of *Neosciaphobus* species; *Sciaphobus scheibeli* Apfelbeck, 1922: male ($A-dorsal\ view$; $B-lateral\ view$), female ($C-dorsal\ view$; $D-lateral\ view$); *Sciaphobus squalidus* (Gyllenhal, 1834): male ($E-dorsal\ view$; $F-lateral\ view$), female ($G-dorsal\ view$; $H-lateral\ view$); *Sciaphobus\ subnudus* (Desbrochers des Loges, 1892): male ($I-dorsal\ view$; $J-lateral\ view$), female ($K-dorsal\ view$); $L-lateral\ view$).

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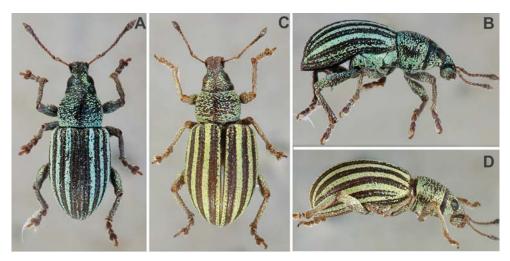


Fig. 3. Habitus of *Neosciaphobus* species; Habitus: *Sciaphobus vittatus* (Gyllenhal, 1834): male (A – dorsal view; B – lateral view), female (C – dorsal view; D – lateral view).

Remarks. Apfelbeck's description was based on a single specimen: 'Albania merid. In monte Šen Thanas prope Valonam a dom. Hoppe (berolinensi) inventum. (Specimen unicum \emptyset ; φ ignota). Typus in coll. Noeske (dresdensi). 'According to R. Krause (pers. comm.), the collection of Noeske has not been deposited in SMTD. But among various *Polydrusus* species, one male specimen from the type locality was found in SMTD, it fits well the primary description and has the same locality data. Althoug it has no Apfelbeck's label with species name, we can assume that it is the missing holotype in the general collection of *Sciaphobus* in SMTD.

Sciaphobus (Neosciaphobus) ningnidus (Germar, 1824)

(Figs 1C-D; 6D)

Curculio rubi Gyllenhal, 1813: 329 (original description, younger primary homonym nec. C. rubi Herbst, 1795). Sciaphobus (Neosciaphobus) rubi: Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 162 (catalogue); Smreczyński (1966): 82 (fauna); Dieckmann (1980): 251 (fauna); Podlussány (1996): 200 (check-list); Benedikt et al. (2010): 107 (check-list).

Thylacites ningnidus Germar, 1824: 412 (original desciprion).

Sciaphilus ninguidus: Stierlin (1884): 88 (lapsus).

Sciaphobus (Neosciaphobus) ningnidus: Borovec (2013): 385 (catalogue).

Type localities. *Curculio rubi* 'Scaniae [Sweden, Skåne]'. *Thylacites ningnidus* 'Halae Saxonum [Germany, Sachsen-Anhalt, Halle (Saale)]'

Type material examined. *Thylacites ningnidus*: Lectotype (present designation): ♀ (3.69 mm long), 'ningnidus Gm Schönh., Halae, Jnr. [handwritten label in the box] / [triangular handwritten label with 2–3 illegible letters] / MLU Halle, WB Zoologie, S.-Nr., T.-Nr. 9/1/21 [partly printed, partly handwritten] / LECTOTYPUS Thylacites ningnidus Germar, R. Borovec et J. Skuhrovec desig. 2014 [red, printed] / Sciaphobus ningnidus (Germar) R. Borovec det. 2014 [printed]'. Paralectotypes: 3 spec., pinned in the same series (MLUH).

Curculio rubi Syntype (?): unsexed (3.97 mm long, pinned, missing right funicle with club, left anterior left middle and right hind tarsus) 'Scania Wetterhall [handwritten] / Naturhistoriska Riksmuseet Stockholm Loan no 676/94 [blue, printed] / NRM Sthlm Loan 2749/08 [green, printed] / Sciaphobus ningnidus (Gyllenhal), R. Borovec det. 2013 [printed]' (NHRS).

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Additional material examined. CROATIA: without precise locality data, 3 spec., Reitter lgt. (SMTD). CZECH REPUBLIC: BOHEMIA: Hradec Králové env., bank of Elbe river, sweeping, 9.v.1995, 35 spec., R. Borovec lgt. (RBSC). Moravia: Kunštát, 6 spec., A. Fleischer lgt. (NMPC); Řečkovice, 1 spec., Formánek lgt. (NMPC); Střelice, 1 spec., Formánek lgt. (NMPC). GERMANY: Sachsen: without precise locality data, 6 spec. (SMTD). MONTENE-GRO: Pljevja: Pivska planina, Trsa, 13.vi.2012, 1 spec., J. Stanovský lgt. (JSOC). Žabljak: Durmitor, Dolina Sušice, 7.–27.vii.1933, 6 spec., J. Fodor lgt. (APBH). RUSSIA: Republic of Tatarstan: Kazan, 3 spec. (SMTD). Samara Oblast: Samara, 3 spec. (SMTD).

Redescription (Figs 1C–D; 6D). Body length 3.56–4.63 mm. Body black, antennae and legs reddish, in some specimens clubs and middle part of femora darker. Elytra densely covered with short oval, greyish appressed scales, integument hardly visible, 4–5 scales across one interval; elytra without any pattern, only interval 7 with slightly more whitish scales in some specimens; intervals 2 and 4 in some specimens somewhat narrower than the others; intervals with one sparse row of very short, indistinct, slender setae, hardly visible also in lateral view. Pronotum densely covered with white greyish, short oval, pointed scales, completely covering integument, bigger than elytral scales, with irregularly scattered, slender, almost piliform setae of the same colour; lateral parts of pronotum with somewhat larger whitish scales, forming indistinct longitudinal stripes. Head and rostrum regularly covered with greyish short oval scales, hiding integument.

Head (Figs 1C–D; 6D). Rostrum short and wide, isodiametric; in basal half faintly tapered anteriad, with straight sides, in apical half distinctly enlarged anteriad with straight sides, at apex 1.08–1.14× as wide as at base. Frons flat, finely punctate, shiny. Epifrons coarser punctate, somewhat matt. Eyes small, moderately convex, somewhat projecting beyond outline of head.

Antennae with funicle segment I $1.8-2.0\times$ as long as wide; segment II $2.4-2.5\times$ as long as wide and $1.1\times$ as long as segment I; segment III $1.4-1.5\times$ as long as wide; segments IV–VI $1.1-1.2\times$ as long as wide; segment VII isodiametric; clubs $2.6-2.7\times$ as long as wide.

Pronotum (Figs 1C–D) wide, 1.39–1.43× as wide as long, widest behind midlength, with distinctly rounded sides, anteriad more tapered than posteriad; disc regularly and densely punctate, distance between two punctures shorter than puncture diameter.

Scutellum small, triangular, glabrous.

Elytra (Figs 1C–D) short oval, 1.32–1.39× as long as wide, somewhat globose, widest at midlength, with distinctly rounded sides; humeral calli regularly rounded, not projecting laterally; striae punctate, wide; intervals almost flat.

Legs. Pro- and mesofemora with small, almost indistinct tooth, metafemora with small but well visible tooth. Tarsomere II isodiametric to $1.1 \times$ as wide as long; tarsomere III $1.4-1.5 \times$ as wide as long and $1.6-1.7 \times$ as wide as II; onychium $1.1 \times$ as long as tarsomere III.

Sexual dimorphism. None, parthenogenetic species.

Female genitalia. Spermatheca (Fig. 8B) with ramus and nodulus equally wide, ramus twice as long as nodulus.

Differential diagnosis. Among not greenish species, distinguishable by equal size of greyish scales of dorsal part of body, lack of brownish scales forming longitudinal stripes on pronotum or elytra (Figs 1C–D).

Distribution. Albania (Borovec 2013), Austria (Borovec 2013), Bosnia and Herzegovina (Dieckmann 1980), Croatia (unpublished data), Czech Republic (Dieckmann 1980), Germany (Dieckmann 1980), Hungary (Dieckmann 1980), Montenegro (unpublished data), Poland

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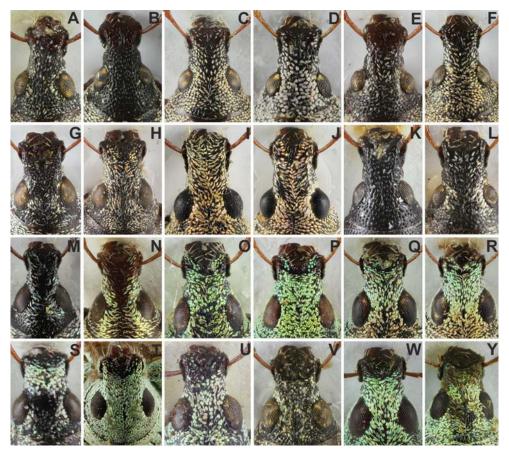


Fig. 6. Rostra of Neosciaphobus and Sciaphobus (s. str.) species; Sciaphobus angustus sp. nov., Holotype, male (A); Sciaphobus globipennis Apfelbeck, 1922: male (B), female (C); Sciaphobus ningnidus (Germar, 1824): female (D); Sciaphobus reitteri (Stierlin, 1884): male (E), female (F); Sciaphobus scheibeli Apfelbeck, 1922: male (G), female (H); Sciaphobus squalidus (Gyllenhal, 1834): male (I), female (J); Sciaphobus subnudus (Desbrochers des Loges, 1892): male (K), female (L); Sciaphobus vittatus: male (M), female (N); Sciaphobus abbreviatus (Desbrochers des Loges, 1871), male (O), female (P); Sciaphobus dorsualis (Gyllenhal, 1834): male (Q), female (R); Sciaphobus formaneki sp. nov.: Holotype, male (S), Paratype, female (T); Sciaphobus pelikani sp. nov.: Holotype, male (U), Paratype, female (V); Sciaphobus rasus: male (W), female (Y).

(DIECKMANN 1980), Romania (BOROVEC 2013), European part of Russia (DIECKMANN 1980), Slovakia (BOROVEC 2013), Ukraine (DIECKMANN 1980). The presence of the species in Sweden doubtful as it was based only on the type specimen of *C. rubi* and was never confirmed by new material.

Collection circumstances. Numerous specimens were collected by general sweeping of a meadow bank of the Elbe River in eastern Bohemia, Czech Republic (Fig. 9B) by one of the authors.

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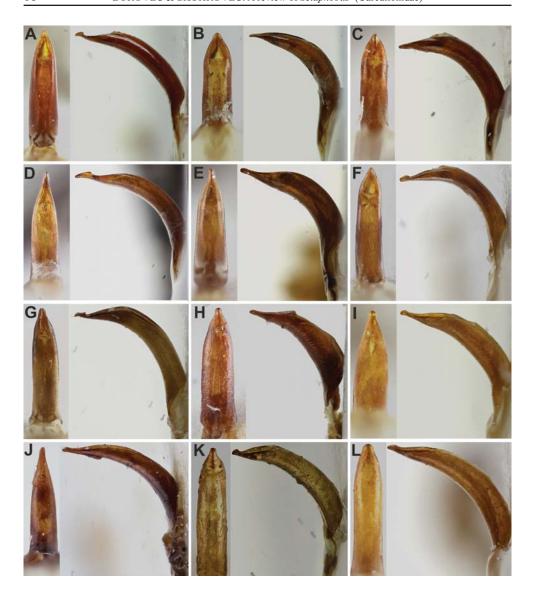


Fig. 7. Aedeagus of *Neosciaphobus* and *Sciaphobus* (s. str.) species; *Sciaphobus angustus* sp. nov., Holotype (A); *Sciaphobus globipennis* (B); *Sciaphobus reitteri* (C); *Sciaphobus scheibeli* (D); *Sciaphobus squalidus* (E); *Sciaphobus subnudus* (F); *Sciaphobus vittatus* (G); *Sciaphobus abbreviatus* (H); *Sciaphobus dorsualis* (I); *Sciaphobus formaneki* sp. nov.: Holotype (J); *Sciaphobus pelikani* sp. nov.: Holotype (K); *Sciaphobus rasus* (L).

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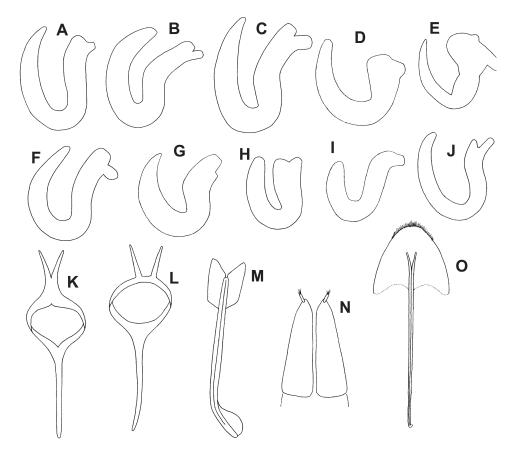


Fig. 8. Spermatheca, male tegmen and sternite IX, female ovipositor and sternite VIII of *Neosciaphobus* and *Sciaphobus* (s. str.) species; Spermatheca of *Sciaphobus globipennis* Apfelbeck, 1922 (A); *Sciaphobus ningnidus* (Germar, 1824) (B); *Sciaphobus reitteri* (Stierlin, 1884) (C); *Sciaphobus scheibeli* Apfelbeck, 1922 (D); *Sciaphobus squalidus* (Gyllenhal, 1834) (E); *Sciaphobus subnudus* (Desbrochers des Loges, 1892) (F); *Sciaphobus vittatus* (Gyllenhal, 1834) (G); *Sciaphobus formaneki* sp. nov.: Paratype (H); *Sciaphobus pelikani* sp. nov.: Paratype (I); *Sciaphobus rasus* (Seidlitz, 1867) (J). Tegmen of *Sciaphobus scheibeli* (K); *Sciaphobus vittatus* (L). Male sternite IX of *Sciaphobus scheibeli* (M). Ovipositor of *Sciaphobus ningnidus* (N). Female sternite VIII of *Sciaphobus ningnidus* (O).

Remarks. *Thylacites ningnidus* was described from 'Halae Saxonum' (Germar 1824) and there are four specimens in the Germar's collection (MLUH), pinned below handwritten label: 'ningnidus Gm Schönh., Halae, Jnr.'. We designate a lectotype of *T. ningnidus* from a well-preserved female specimen to stabilize the nomenclature in the group. All three remaining syntypes are conspecific with the lectotype and we have designated them as paralectotypes.

Curculio rubi was described from 'Habitat in Rubo Caesio Scaniae. Rarius, Dom Wetterhall' (GYLLENHAL 1813). There is one specimen in NHRS from the type locality; however, we have not seen all type material from Gyllenhal's own collection (housed at the Uppsala

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University) and therefore we do not designate a lectotype. On the other hand, we consider the NHRS specimen a possible syntype as it comes from the type locality; its labels indicate that it came from the same time period as Gyllenhal's specimens. The specimen is in accordance with the concept of the species as used in the literature and is without all doubts conspecific with the type of *Curculio rubi*. However the name is preoccupied as *Curculio rubi* Gyllenhal, 1813 is a younger homonym of *Curculio rubi* Herbst, 1795 (presently *Anthonomus rubi*), and therefore *Sciaphobus* (*Neosciaphobus*) *ningnidus* (Germar, 1824) is used as a valid name for this species (Borovec 2013).

Sciaphobus (Neosciaphobus) reitteri (Stierlin, 1884)

(Figs 1I-K; 6E-F, 7C)

Sciaphilus reitteri Stierlin, 1884: 86 (original description).

Sciaphobus (Neosciaphobus) reitteri: Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 162 (catalogue); Borovec (2013): 385 (catalogue).

Type locality. 'Bosnien'

Type material examined. Lectotype (present designation): $\sqrt[3]{3.62 \text{ mm long}}$, 'Bosnien [handwritten] / Coll. Stierlin [printed] / S. Reitteri Strl. [original handwritten label with blue margins] / HOLOTYPUS [red, printed] / col. DEI Eberswalde [printed] / LECTOTYPUS Sciaphilus reitteri Stierlin, 1884, R. Borovec et J. Skuhrovec desig. 2014 [red, printed] / Sciaphobus reitteri R. Borovec et J. Skuhrovec det. 2014 [printed] (SDEI).

Additional material examined. BOSNIA AND HERZEGOVINA: CENTRAL BOSNA: Donji Vakuf, 27.v.1987, 1 spec., J. Kendler lgt. (JFHC); Travnik, 5 spec., Brandis lgt. (HNHM, NHMW). Herzegovina-Nertva: Jablanica, 3 spec., 14.vi.1901 (SDEI, SMTD); Konjic, 1 spec. (NMPC); Mostar, 1 spec. (RBSC); Sarajevo: Bjelašnica Mts., 4 spec. (HNHM); Ilidža, 24 spec., Apfelbeck lgt. (HNHM, NHMW, SDEI, SMTD); Ivan planina Mts., 8 spec. (HNHM, SMTD); Sarajevo, 3 spec., Apfelbeck lgt. (NHMW), 14 spec. (HNHM, SDEI, SMTD); Pazaridž [= Pazarič], 1 spec., Apfelbeck lgt. (NHMW). CROATIA: Dubrovnik-Nertva: Trpanj, 1 spec. (NMPC).

Redescription (Figs 1I–K; 6E–F, 7C). Body length 3.09–3.94 mm. Body black, frons reddish, antennae and legs reddish brown, clubs and tarsi in some specimens somewhat darker. Elytra densely covered with small, short oval, brown greyish scales, 5–6 scales across one interval, integument hardly visible, with irregularly scattered larger, grey whitish scales; larger grey whitish scales form longitudinal stripe in basal two thirds of elytral interval 7 and short longitudinal spot in basal parts of elytral intervals 4 and 8; elytral intervals with 1–2 irregular rows of indistinct, short, adherent slender setae. Pronotum densely covered with similar small brownish and larger greyish scales, integument hardly visible, greyish scales form distinct lateral stripes and indistinct two stripes on disc; disc with scattered slender short adherent setae, directed transversally. Head and rostrum with sparse, narrow, long oval appressed scales, obliquely directed posteriad, leaving distinct space between scales and with wider, short oval scales around eyes.

Head (Figs 1I–K; 6E–F). Rostrum in both sexes isodiametric; in basal half weakly tapered anteriad, with straight sides, in apical half distinctly enlarged anteriad, with straight sides, at apex 1.08–1.16× as wide as at base. Frons flat, glabrous, impunctate, shiny. Epifrons in middle part finely, in lateral parts coarsely punctate, shiny. Eyes small, convex, distinctly projecting beyond outline of head.

Antennae in females slenderer than in males; in males funicle segment I 1.8× as long as wide; segment II equally long as segment I, 2.2–2.3× as long as wide; segments III–V 1.2–1.3× as long as wide; segment VI and VII 1.1× as long as wide; in females segment I 2.2–2.3× as

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long as wide; segment II $1.1 \times$ as long as segment I and $2.7-2.8 \times$ as long as wide; segments III–V $1.5 \times$ as long as wide; segment VI $1.3 \times$ as long as wide and segment VII $1.2 \times$ as long as wide; clubs $2.5-2.7 \times$ as long as wide.

Pronotum (Figs 1I–L) 1.21–1.29× as wide as long, widest behind midlength, with distinctly rounded sides, anteriad more tapered than posteriad; disc regularly and densely punctate, distance between two punctures shorter than puncture diameter, intervals shiny; disc with thin, sometimes invisible, impunctate stripe.

Scutellum small, triangular, glabrous.

Elytra (Figs 1I–L) in males long oval, in females oval, 1.32–1.34× as long as wide; widest at midlength, with distinctly rounded sides and without projecting humeral calli; striae punctate, narrow, intervals wide, almost flat.

Legs. Pro- and mesofemora in both sexes very small, almost indistinct, metafemora small but well visible. Tarsomere II 1.1× as wide as long; tarsomere III 1.1–1.3× as wide as long and 1.4–1.6× as wide as II; onychium 0.9× as long as tarsomere III.

Sexual dimorphism. For more details see antennae and elytra.

Male genitalia. Aedeagus (Fig. 7C) long and slender, in ventral view parallel-sided, apex regularly pointed, subtriangular; in lateral view regularly curved and of equal width in whole length, in apical quarter regularly tapered.

Female genitalia. Spermatheca (Fig. 8C) U-shaped, with very long and curved cornu and corpus; ramus and nodulus small, rounded, equally long and wide.

Differential diagnosis. The smallest species of the subgenus separated among species with metafemora with tooth by its bicolorous elytra. The other species having these two characters, *S.* (*N.*) *globipennis*, differs in elytra wider, 1.26–1.28× as long as wide (Figs 1E, G) and aedeagus regularly tapered in apical half in lateral view (Fig. 7B), while *S.* (*N.*) *reitteri* has elytra narrower, 1.32–1.34× as long as wide (Figs 1I, K) and aedeagus tapered in apical quarter in lateral view (Fig. 7C).

Distribution. Bosnia and Herzegovina (Borovec 2013), and Croatia (unpublished data).

Remarks. STIERLIN (1884) described the species based on unknown number of specimens and stated the length 3.8 mm and 'Bosnien' as locality. We found one male specimen in Stierlin's collection (SDEI). The specimen bears an additional label 'HOLOTYPUS' that was presumably attached by one of the former curators, however, the label has no relevance. The primary description does not indicate the number of specimens used and Stierlin's collection was spread among several institutions therefore we cannot exclude the possibility of existence of additional specimens. Therefore we designate a lectotype to fix the name and prevent future misinterpretation. Since the existence of other syntypes cannot be excluded, we designate one male as a lectotype to stabilize the nomenclature in the group.

Sciaphobus (Neosciaphobus) scheibeli Apfelbeck, 1922 (Figs 2A-D; 6G-H, 7D)

Sciaphobus (Neosciaphobus) Scheibeli Apfelbeck, 1922: 66 (original description); Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 163 (catalogue); Borovec (2013): 385 (catalogue).

Type locality. 'Mokragora [Serbia, Zlatibor District, Mokra Gora]'.

Type material examined. Lectotype (here designated): 3 (4.75 mm long, missing left middle leg), 'Mokragora Apflb. 5-21 [printed] / Serbien [handwritten] / Syntypus [red, printed] / Sciaphobus Scheibeli Apf. Typ n.sp. [Apfel-

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beck's hadwriting] / DEI Müncheberg Col – 00122 [green, printed] / Sciaphobus scheibeli Apf. [handwritten] / LECTOTYPUS Sciaphobus scheibeli Apfelbeck, R. Borovec et J. Skuhrovec desig. 2014 [red, printed]' (SDEI). Paralectotype: 3, 'Mokragora Apflb. 5-21 [printed] / Serbien [handwritten] / Syntypus [red, printed] / Coll. O. Leonhard [printed] / Sciaphobus Scheibeli Apf. Typ n.sp. [Apfelbeck's hadwriting] / DEI Müncheberg Col – 00123 [green, printed] / Sciaphobus scheibeli Apf. [handwritten] / PARALECTOTYPUS Sciaphobus scheibeli Apfelbeck, R. Borovec et J. Skuhrovec desig. 2014 [red, printed]' (SDEI).

Additional material examined. SERBIA: ZLATIBOR: Mokra Gora, 1 ♀, Apfelbeck lgt. (RBSC); Šargan planina Mts., 2 ♂♂, Scheibel lgt. (ZSMG).

Redescription (Figs 2A–D; 6G–H, 7D). Body length 4.38–5.81 mm. Body black, antennae and legs reddish, femora except for knees dark brownish to blackish. Elytra with long oval, pointed, large, appressed and isolated scales, moderately sparsely distributed, leaving narrow space among them, 4–5 scales across one elytral interval; elytral interval 1 on declivity and elytral interval 7 densely squamose with scales completely hiding integument, thus elytral interval 7 with 6 scales across one interval; scales on disc grey greenish or green with bronze sheen, lateral elytral intervals starting with interval 7 bright green. Pronotum with long oval, pointed appressed scales in lateral part larger, on the disc smaller than elytral ones, transversally directed; lateral scales dense, green, forming ill-defined stripes; scales on disc sparse, with bronze sheen and with irregularly scattered brownish piliform adherent setae. Head and rostrum with scales smaller than elytral ones, sparse, obliquely directed posteriad, scales in lateral parts long oval, pointed, in middle part of rostrum and head slender, almost piliform.

Head (Figs 2A–D; 6G–H). Rostrum short, 1.10–1.20× as wide as long; in basal half weakly tapered anteriad with straight sides, in apical half distinctly enlarged anteriad, with slightly rounded sides, at apex 1.10–1.20× as wide as at base. Frons large, flat, shiny, almost glabrous, only with several small punctures. Epifrons regularly punctate with moderately coarse punctures, somewhat matt. Interocular space with narrow longitudinal fovea. Eyes large, flat, barely projecting beyond outline of head.

Antennae in females slenderer than in males; in males segment I $1.7-1.8\times$ as long as wide; segment II $1.1\times$ as long as segment I and $2.4-2.5\times$ as long as wide; segments III–VI $1.8\times$ as long as wide; segment VII $1.4\times$ as long as wide; in females segment I $2.1-2.2\times$ as long as wide; segment II $1.1\times$ as long as segment I and $2.7-2.8\times$ as long as wide; segments III and IV 2.2-2.4 times× as long as wide; segments V and VI $1.8\times$ as long as wide; segment VII $1.6-1.7\times$ as long as wide; clubs $2.6-2.7\times$ as long as wide.

Pronotum (Figs 2A–D) short and wide, 1.32–1.40× as wide as long, widest at midlength, with weakly rounded sides, anteriad more tapered than posteriad; disc densely and regularly punctate, distance between two punctures smaller than puncture diamater, space between punctures shiny; middle part with thin, ill-defined and impunctate shiny area.

Scutellum small, subtriangular, glabrous.

Elytra (Figs 2A–D) narrow, 1.46–1.53× as long as wide, widest at midlength, with weakly rounded sides, in basal half with almost straight sides; humeral calli shortly obliquely subtruncated at base, weakly projecting laterally; striae wide, glabrous; intervals moderately narrow, almost flat.

Legs. All femora in both sexes unarmed. Inner side of metatibia in males with conspicuous brush of dense, long, erect, yellowish setae, while females have metatibia without similar brush, only with several short, sparse semierect setae. Tarsomere II isodiametric; tarsomere III

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1.4–1.5× as wide as long and 1.6–1.7× as wide as II; onychium equally long as tarsomere III. *Sexual dimorphism.* For more details see antennae, and metatibia.

Male genitalia. Aedeagus (Fig. 7D) widest at base in ventral view, in whole length with slightly concave sides, apex slender, elongated, pointed, with weakly concave sides; regularly curved in lateral view, equally wide in whole length, apex elongated, pointed, with moderately large, distinct denticle at apex. Parameres solidly fused in basal half.

Female genitalia. Spermatheca (Fig. 8D) c-shaped; cornu short, regularly curved; corpus short; ramus small, rounded, isodiametric; nodulus very small, hump-shaped.

Differential diagnosis. Easily distinguished by the bright greenish scales on lateral elytral intervals (Figs 2A–D), all femora unarmed, flat eyes (Figs 6G–H) and long setae on inner apical part of metatibiae in males. The last character is unique within the whole subgenus. The only other species with unarmed femora is *S.* (*N.*) *squalidus*, which differs in following characters (characters of *S.* (*N.*) *scheibeli* in parentheses): eyes convex, distinctly projecting beyond outline of the head (Figs 6I, J) (eyes flat, barely projecting (Figs 6G, H)); rostrum slender and long (Figs 6I, J) (wide and short (Figs 6G, H)); elytral intervals 6–10 with grey scales, scales on interval 7 equally sparse as on other intervals, scales not hiding integument (Figs 2E–H) (intervals 7–10 with green scales, scales on interval 7 denser than on other intervals, hiding integument (Figs 2B, D)) and elytral striae inconspicuous, narrow (conspicuous, wide). **Distribution.** Serbia (Borovec 2013).

Remarks. APFELBECK (1922) did not mentioned exact number of specimens he had at disposal, however, he gave length span and discussed variability. Additionally he stated that he had seen material collected by O. Scheibel and that he collected additional specimen(s) on the same locallity: 'Serbia merid. occ. (Mokragora). Bei Mokragora, östlich von Vardište, von Herrn Ingenieur O. Scheibel entdeckt, heuer auch von mir dort gesammelt.' Thus it is evident that he had more than one specimen at disposal. We examined two male specimens deposited in SDEI and we have no doubt they belong to the original type series as part of Apfelbeck's collection was accquired by SDEI via collection of O. Leonhard. We designate a lectotype from a well-preserved and scaled specimen, just missing the left middle leg, to stabilize the nomenclature in the group.

Sciaphobus (Neosciaphobus) squalidus (Gyllenhal, 1834)

(Figs 2E-H; 6I-J, 7E)

Polydrusus squalidus Gyllenhal, 1834: 151 (original description).

Sciaphilus squalidus: Stierlin (1884): 87 (key).

Sciaphobus (Neosciaphobus) squalidus: Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 163 (catalogue); Smreczyński (1966): 82 (fauna); Angelov (1978): 60 (fauna); Dieckmann (1980): 252 (fauna); Podlussány (1996): 200 (check-list); Benedikt et al. (2010): 107 (check-list); Borovec (2013): 385 (catalogue).

Sciaphilus beckeri Stierlin, 1864: 494 (original description); WINKLER (1932): 1469 (synonymy).

Sciaphobus (Neosciaphobus) balcanicus Apfelbeck, 1922: 65 (original description); Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 162 (catalogue); Angelov (1978): 60 (fauna); Borovec (2013): 385, syn. nov. (catalogue).

Sciaphobus (Neosciaphobus) squalidus alternans Apfelbeck, 1922: 64 (original description); Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 163 (catalogue); Borovec (2013): 385, syn. nov. (catalogue).

Sciaphobus (Neosciaphobus) squalidus ovalipennis Apfelbeck, 1922: 64 (original description); Winkler (1932): 1469 (catalogue); Dalla Torre et al. (1937): 163 (catalogue); Borovec (2013): 385, syn. nov. (catalogue).

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Type localities. *Polydrusus squalidus*: 'Tauria [= Crimea]' fixed here by lectotype designation; *Sciaphilus beckeri*: 'Sarepta'; *Sciaphobus balcanicus*: 'Rumänien (Comana vlasca) [= Comana, Giurgiu County, Romania]' fixed here by lectotype designation; *S. squalidus alternans*: 'Rumänien (Munteni)'; *S. squalidus ovalipennis*: 'Slavonia (Ruma)'.

Type material examined. *Polydrusus squalidus*: Lectotype (present designation): ♀ (5.88 mm long, well preserved, only with divaricate elytra), 'Tauria Steven [handwritten] / Typus [red, printed] / NRM Sthml Loan 2743/08 [green, printed] / LECTOTYPUS Polydrosus squalidus Gyllenhal, R. Borovec desig. 2013 [red, printed] / Sciaphobus squalidus (Gyllenhal), R. Borovec det. 2013 [printed]' (NHRS). Paraectotype: ♀, 'Polydr. - - - P. aust. Besser [handwritten] / Paratypus [red, printed] / NRM Sthml Loan 2744/08 [green, printed] / PARALECTOTYPUS Polydrosus squalidus Gyllenhal, R. Borovec desig. 2013 [red, printed] / Sciaphobus squalidus (Gyllenhal), R. Borovec det. 2013 [printed] ' (NHRS).

Sciaphilus beckeri: Lectotype (present designation): ♀ (5.50 mm long, lacking the both antennae), 'Sarepta [handwritten] / 5 [handwritten] / Sciaphilus Beckeri Strl. [handwritten] / coll. Stierlin [printed] / Sciaphilus Beckeri Strl. [bh-wohl richtig, aber nicht im Catalog [pink, handwritten] / Syntypus [red, printed] / DEI Müncheberg Col − 00150 [green, printed] / = beckeri Strl. [handwritten] / LECTOTYPUS Sciaphilus beckeri Strelin, R. Borovec et J. Skuhrovec desig. 2014 [red, printed] / Sciaphobus squalidus (Gyllenhal), R. Borovec det. 2014 [printed]' (SDEI). Paralectotype: 1 spec., unsexed, 'Sciaphilus Beckeri Strl. Sarepta Becker [handwritten] / 31. [blue, handwritten] / Sch [blue, handwritten] / Syntypus [red, printed] / DEI coll. von Heyden [printed] / DEI Müncheberg Col − 00153 [green, printed] / = beckeri Strl. [handwritten] / PARALECTOTYPUS Sciaphilus beckeri Stierlin, R. Borovec et J. Skuhrovec desig. 2014 [red, printed] / Sciaphobus squalidus (Gyllenhal), R. Borovec det. 2014 [printed]' (SDEI); 2 spec., usexed, 'coll. Stierlin [printed] / Syntypus [red, printed] / DEI Müncheberg Col − 00151 [or 00152, respectively] [green, printed] / Sciaphobus squalidus (Gyllenhal), R. Borovec det. 2014 [printed]' (SDEI).

Sciaphobus balcanicus: Lectotype (here designated): 3 (5.75 mm long remounted and dissected by the authors), 'Romanie, Comana Vlasca, A. L. Montandon [printed] / balcanicus n. sp. Apf. [Apfelbeck's handwriting] / Coll. O. Leonhard [printed] / Sciaphobus balcanicus Apfel. [handritten] / DEI Müncheberg Col – 00124 [green, printed] / Sciaphobus balcanicus Apf. [handwritten] / Lectotypus Sciaphobus balcanicus Apfelbeck, R. Borovec et J. Skuhrovec desig. 2014 [red, printed] / Sciaphobus squalidus (Gyllenhal), R. Borovec det. 2014 [printed] (SDEI). Paraectotypes: 9 (originally pinned together with lectotype), same data as lectotype (all labels additionally produced by the authors) except of 'PARALECTOTYPUS' (SDEI); 3 (remounted and dissected by the authors), 'Ganglb. 95, Herkulesbad [printed] / balcanicus Apf. [Apfelbeck's handwriting] / Coll. O. Leonhard [printed] / DEI Müncheberg Col – 00125 [green, printed]' (SDEI).

Sciaphobus squalidus alternans: type material not examined.

Sciaphobus squalidus ovalipennis: type material not examined.

Additional material examined. BOSNIA AND HERZEGOVINA: Bosanska Krajina: Banja Luka, 1909, 1 spec., V. Apfelbeck lgt. (SDEI). BULGARIA: Ruse: Rustschuk, 3 spec. (ZSMG). CROATIA: Sisak-Moslavina COUNTY: Sisak, 3 spec. (NMPC); without more precise data, 1 spec. (ZSMG). GREECE: CENTRAL GREECE: Atheny, 1 spec. (ZSMG). HUNGARY: BARANYA COUNTY: Mohács, 16.v.1979, 1 spec., L. Dieckmann lgt. (SDEI); Villany, 14.v.1980, 1 spec., M. Sieber lgt. (SDEI); Villányi hills, Máriagyüd env., 3.v.1997. 7 spec., J. Krátký lgt. (JKHC, RBSC). Somogy county: Siófok, v.1935, 1 spec., Hajný lgt. (JFHC); without more precise data, 1 spec. (SDEI). MOLDAVIA: PRIDNESTROVE (TRANSNISTRIA): 70 km N t. Tiraspol, 'Yagorlyk' Res., 15.iv.2000, 6 spec., A. Moseyko lgt. (RBSC). ROMANIA: ARAD: Rovine, bank of the Muresul River, 21.iv.1983, 21 spec., R. Borovec lgt. (RBSC). Banat (historical region): Banat, 2 spec. (NMPC), Banat (SDEI); BUCUREȘTI-ILFOV: 'BUCUREST', 1 spec. (SDEI). Constanța: Cheia, 44°29'N, 28°26'E, 2.v.2009, 1 spec., P. Kresl lgt. (PKSC). Caraș-Severin: Herkulesbad [=Băile Herculane], 1 spec. (JFHC); Herculane [=Băile Herculane], 22.–30.v.1969, 1 spec., Z. & J. Novotný lgt. (JFHC); Mehadia, 5 spec. (SDEI), 3 spec. (ZSMG). Giurgiu: 'Comana Vlasca' [Comana is a commune in the Giurgiu county formely known as Vlasca county], 3 spec., A. L. Montandon lgt. (NMPC), 8 spec., A. L. Montandon lgt. (SDEI). IAși: Lespezi pr. Bacau, meadows, forests, 2.v. 2005, 3 spec., J. Krátký lgt. (JKHC). Suceava: Mitocu Dragomirnei, 6.v.2005, 1 spec., J. Krátký lgt. (JKHC). Tulcea: Podisul Babadagului Mts., Codru env., 44°49.192'N, 28°41.471'E, 5.v.2009, 137 m, 7 spec., J. Krátký & P. Kresl lgt. (JKHC, PKSC); S of Horia, Podisul Babadagului Mts., 44°59.7'N, 28°27'E, 1 spec., 6.v.2009, P. Kresl lgt. (PKSC); Slava Rusa, Podișul Babadagului Mts., 44°51.8'N, 28°38.2'E, 4.v.2009, 1 spec., P. Kresl lgt. (PKSC). RUSSIA: Volgograd Oblast: Sarepta, 1 spec. (SDEI), 3 spec. (ZSMG);

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without more precise data, 2 spec., mer. (SDEI); 2 spec. (ZSMG). SERBIA: Braničevo: Ponikve, V. Gradište, 2.v.1954, 1 spec., Stančić lgt. (NMPC); Radoševac, V. Gradište, 15.v.1955, 3 spec., Stančić lgt. (NMPC). City of Belgrade: Beograd, Topčider, 14.iv.1953, 2 spec., Stančić lgt. (NMPC). South Bačka: Sr. Karlovci, 7.iv.1951, 2 spec., Stančić lgt. (NMPC). Vojvodina: Ruma, 2 spec. (NMPC). SLOVAKIA: Nitra: Báb, 13.v.1969, 2 spec., I. Okáli lgt. (JFHC). UKRAINE: Crimea: Krym, Gomilšan, 3.v.1980, 1 spec., Kletečka lgt. (RBSC). Ivano-Frankivsk Oblast: Kolomyya, 6.v.1900, 2 spec. (NMPC). Kiev: Kiev, 1 spec. (ZSMG). Ternopil Oblast: Terebovlya, 30.v.1990, 2 spec. (SDEI). Zhytomyr Oblast: Zhytomyr, 1 spec. (SDEI). UNKNOWN: 'Slavon [? Slavonia]', without additional data, 1 spec. (SDEI).

Redescription (Figs 2E–H; 6I–J, 7E). Body length 5.13–7.25 mm. Body black; antennae red brownish, clubs blackish; femora except of knees blackish, tibiae with tarsi red brownish, in some specimens also femora brownish or reddish or tarsi darker, almost blackish. Elytra with short oval appressed scales, sparse, leaving narrow spaces between two scales, 6–7 scales across one elytral interval, in many specimens sparser on intervals 3 and 5, light brownish to brownish, exceptionally greyish, sometimes with bronze sheen, intervals 6–10 greyish. Pronotum with long and narrow scales, transversally directed, sparse, not hiding integument, of same colour as elytral ones and with large, long oval, dense greyish scales, forming inconspicuous stripes on pronotal sides. Head with rostrum with similar narrow scales as pronotal ones, directed obliquely posteriad, regularly sparsely covered space, only around eyes scales wider, short oval, dense.

Head (Figs 2E–H; 6I–J). Rostrum long and slender, isodiametric or 1.05× as long as wide, in basal half weakly tapered anteriad with straight sides, in anterior half distinctly enlarged anteriad with straight sides, at apex in males 1.14–1.18×, in females 1.08–1.09× as wide as at base. Frons large, weakly and shallowly depressed, in anterior part finely punctate, in basal half almost impunctate, shiny, sparsely covered by narrow scales. Epifrons regularly and distinctly punctate, somewhat matt. Interocular space with thin longitudinal fovea. Eyes large and strongly convex, distinctly projecting beyond outline of head.

Antennae in both sexes thin; in males funicle segment I $1.9-2.0\times$ as long as wide; segment II $2.4-2.5\times$ as long as wide and $1.3-1.4\times$ as long as segment I; segments III–VII $1.5-1.7\times$ as long as wide; in females segment I twice as long as wide; segment II $3.1-3.3\times$ as long as wide and $1.3-1.4\times$ as long as segment I; segment III–VII $1.7-2.0\times$ as long as wide; clubs $2.6-2.7\times$ as long as wide.; clubs $2.6-2.7\times$ as long as wide.

Pronotum (Figs 2E–H) large, in males 1.23–1.26×, in females 1.26–1.29× as as long, widest at midlength or slightly behind it, with distinctly rounded sides, anteriad more tapered than posteriad; disc regularly and densely punctate, leaving only narrow shiny keels; several specimens with ill-defined, thin median impunctate stripe.

Scutellum large, subquadratic, densely squamose, greyish.

Elytra (Figs 2E–H) distinctly narrower in males than in females, in males 1.46–1.50×, in females 1.40–1.44× as long as, with regularly rounded sides, widest at midlength; humeral calli obliquely subtruncated posteriad, weakly projecting laterally; striae punctate, narrow, inconspicuous; intervals wide and flat.

Legs. All femora of the both sexes unarmed. Tarsomere II isodiametric to $1.1 \times$ as wide as long; tarsomere III $1.5-1.7 \times$ as wide as long and $1.5-1.6 \times$ as wide as II; onychium $0.9-1.0 \times$ as long as tarsomere III.

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Sexual dimorphism. For more details see rostrum, antennae, pronotum and elytra.

Male genitalia. Aedeagus (Fig. 7E) long and slender, widest at base in ventral view, subparallel-sided with slightly concave sides, apex long and slender, pointed, with distinctly concave sides; regularly curved in lateral view and equally wide in whole length, apex tapered, elongated point, slender.

Female genitalia. Spermatheca (Fig. 8E) with nodulus twice wider than ramus.

Differential diagnosis. The largest species of *Neosciaphobus*, easily distinguished from all the other species mainly by having big, subquadratic and densely squamose scutellum (Figs 2E, G), which is unique within the whole subgenus, in combination with all femora unarmed.

Only *S.* (*N.*) *scheibeli* has also all femora unarmed and *S.* (*N.*) *squalidus* can be separated from it by the following characters (characters of *S.* (*N.*) *scheibeli* in parentheses): eyes convex, distinctly projecting beyond outline of the head (Figs 6I, J) (eyes flat, barely projecting (Figs 6G, H)); rostrum slender and long (Figs 6I, J) (wide and short (Figs 6G, H)); elytral intervals 6–10 with grey scales, scales on interval 7 equally sparse as on other intervals, scales not hiding integument (Figs 2E–H) (intervals 7–10 with green scales, scales on interval 7 denser than on other intervals, hiding integument (Figs 2B, D)) and elytral striae inconspicuous, narrow (conspicuous, wide).

Distribution. Bosnia and Herzegovina (Borovec 2013), Bulgaria (Borovec 2013), Croatia (Borovec 2013), Greece (unpublished data), Hungary (Borovec 2013), Kazakhstan (Borovec 2013), Moldavia (unpublished data), Montenegro (Borovec 2013), Romania (Borovec 2013), Russia (Borovec 2013), Serbia (Borovec 2013), Slovakia (Borovec 2013), Slovania (Borovec 2013), Ukraine (Borovec 2013).

Collection circumstances. Adults were collected by beating of willows (*Salix* spp.) in Romania by the first author. Jiří Krátký (pers. comm.) collected adult specimens in Hungary (Fig. 9D) and Romania (Fig. 9C) by sweeping of herbal layer with dominance of *Aegopodium podagraria* L.

Remarks. GYLLENHAL (1834) described *P. squalidus* and stated 'Habitat in Tauria, Podolia australi. Dom. Besser. Mus. Schh.' for type localities and depositories. He did not specify number of specimens he used for description, but he must have had at least two as he mentioned two different localities. Tauria is a historic name for Crimea and Podolia was a historic region in Eastern Europe, located in west-central Ukraine and north-eastern Moldavia. Therefore Podolia australi most likely refers to present day north-eastern Moldavia. We designate a lectotype from the specimen from Tauria to stabilize the nomenclature in the group and therefore Tauria becomes the type locality. The paralectotype is from Podolia and is conspecific with the lectotype. The historical concept of the species is in agreement with the types.

STIERLIN (1864) described *S. beckeri* from Sarepta based on unknown number of specimens. We located four specimens deposited at SDEI and designated a lectotype in order to fix the name and stabilize the nomenclature of the group. All four specimens are clearly conspecific with the lectotype of *P. squalidus* thus we confirm synonymy of these two taxa, already stated in Winkler's (1932) catalogue.

APFELBECK (1922) described *S. balcanicus* from series of specimens coming from various localities: 'Südungarn (Herkules fürdö); Serbien (Kladovo); Bulgarien (Stara planina); Rumänien (Comana vlasca)'. Apfelbeck separated males *S. balcanicus* from the similar *S.*

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squalidus by narrower elytra with less projecting humeral calli, longer and more parallel rostrum clearly separated from head, more convex eyes, longer and narrower pronotum, greyish and less metallic elytral scales and by the shape of aedeagus, and females by shorter and more convex elytra with more rounded sides. We examined three specimens, 2 males and 1 female from the collection of O. Leonhard (nowadays in SDEI) and designate a lectotype from a male specimen in order to fix its identify for purpose of synonymy. Due to the lectotype designation, Comana, Giurgiu county, Romania, becomes the type locality of this taxon. We had possibility to examine additional material from the same localities as the studied types in various collections, but we do not assume that they belong to the type series. All distinguishing characters stated by Apfelbeck, including the morphology of the aedeagus, which varies also within one locality, cannot be used for separating *S. balcanicus* from *S. squalidus*, and we consider them infraspecific variability. Therefore we consider *Sciaphobus balcanicus* a subjective younger synonym of *S. squalidus*.

Appelbeck (1922) also described two subspecies of S. squalidus: alternans from 'Romania (Munteni)' and ovalipennis from 'Slavonia (Ruma)'. We were unable to find the type specimens of both subspecies but we studied additional material deposited in O. Leonhard's collection (SDEI). We have seen two specimens of the subspecies alternans, which were collected in Romania, Comana Vlasca and have identification label 'squalidus v. alternans Apf.' handwritten probably by Apfelbeck. They display all characters stated by Apfelbeck in the original description but have somewhat less convex eyes, more enlarged rostrum, narrower vertex and pronotum, and distinctly denser scales on elytral intervals 2, 4 and 6. All these characters fall within infraspecific variability of S. squalidus, even the paralectotype has for example denser scales on elytral intervals 2, 4 and 6, therefore we synonymize the taxon with the nominate species. The subspecies ovalipennis was described based on shallower transversal sulcus between epifrons and vertex and narrower elytra in females. We have studied three specimens from the type locality, one female bearing label 'squalidus ovalipennis (sp. pr.?) Apf.' handwritten probably by Apfelbeck (ex coll. O. Leonhard, SDEI) and one pair deposited in NMPC. All three specimens have slightly shallower transversal sulcus between rostrum and head, but the elytra in females is the same as in typical S. squalidus. Therefore we consider the form of the sulcus infraspecific variability and synonymize the taxon with the nominate species.

Sciaphobus (Neosciaphobus) subnudus (Desbrochers des Loges, 1892)

(Figs 2I-L; 6K-L, 7F)

Sciaphilus subnudus Desbrochers des Loges, 1892: 114 (original description).

Sciaphobus (Sciaphobus) subnudus: Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 162 (catalogue). Sciaphobus (Neosciaphobus) subnudus: Borovec (2013): 385 (catalogue).

Type locality. Original type locality 'Grèce' here changed due to the neotype designation to: Greece, Epirus Region, Koritiani

Type material examined. NEOTYPE (present designation): β (dissected), 'GREECE occ., 19.5.1997, Koritiani env. pr. Igoumenitsa, 100 m a.s.l., S. Benedikt Igt. [printed] / NEOTYPUS Sciaphilus subnudus Desbrochers, R. Borovec et J. Skuhrovec des. 2014 [red, printed] / Sciaphobus subnudus (Desbrochers), R. Borovec et J. Skuhrovec det. 2014 [printed]' (NMPC).

Additional material examined. GREECE: EPIRUS: Koritiani env., pr. Igoumenitsa, 19.v.1997, 100 m., 1 Q, S.

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Benedikt lgt. (SBPC).

Description (Figs 2I–L; 6K–L, 7F). Body length 3.56 (neotype) to 4.06 mm. Body black; antennae redish-yellow with apical part of clubs gradually darker; femora blackish, knees, tibiae and tarsi redish-brown. Elytra with small, short oval, greyish-white with faint greenish shine, dense appressed scales; scales did not completely hiding integument, 6–7 scales across one elytral interval. Pronotum with larger, transversally orientated long oval scales. Head with rostrum with appressed scales of unequal size, short to long oval, leaving glabrous part in middle part of head and rostrum.

Head (Figs 2I–L; 6K–L). Rostrum short, in female wider, in male 1.07× as wide as long, in female 1.13× as wide as long; basal part subparallel-sided with rounded sides, apical half distinctly enlarged apicad with almost straight sides, at apex 1.23–1.29× wider than at base. Frons glabrous, moderately shiny, flat, indistinctly separated from epifrons. Epifrons coarser punctate, matt. Interocular space with narrow, short, longitudinal fovea. Eyes small, moderately convex and projecting beyond outline of head.

Antennae in females with slenderer segments II and II; funicle segment I and II in both sexes equally long; in male segment I and II $1.6 \times$ as long as wide; in female segment I and II twice as long as wide; in both sexes segments III–VI 1.4– $1.5 \times$ as long as wide; segment VII 1.1– $1.2 \times$ as long as wide, clubs 2.2– $2.4 \times$ as long as wide.

Pronotum (Figs 2I–L) wide and short; in male 1.23, in female 1.28 times as wide as long, widest at about midlength, with distinctly rounded sides, more tapered anteriad than posteriad; disc shiny, coarsely punctate, distance of two punctures shorter than puncture diameter; punctures gradually smaller behind anterior margin; disc of pronotum with narrow and short, longitudinal, ill-defined impunctate stripe.

Scutellum small, triangular, glabrous.

Elytra (Figs 2I–L) oval; narrower in male than in females, in male 1.62× as long as wide, in female 1.50× as long as wide, widest around midlength, with rounded sides; humeral calli regularly rounded, not projecting laterally; intervals almost flat; striae narrow, punctate.

Legs. Male profemora with very small, almost indistinct tooth; mesofemora with small but distinct tooth and metafemora with bigger, sharp, distinct tooth. Female pro- and mesofemora unarmed and metafemora with small, but distinct tooth. Tarsi slender and moderately long; tarsomere II 1.1–1.2× as wide as long; tarsomere III 1.3–1.4× as wide as long and 1.3–1.4× as wide as II; onychium long, 1.3–1.4× as long as tarsomere III.

Sexual dimorphism. For more details see rostrum, antennae, pronotum, elytra and femora. *Male genitalia*. Aedeagus (Fig. 7F) long and slender, parallel-sided with apex regularly pointed in ventral view; regularly curved and equally wide in whole length in lateral view, apex regularly tapered, point with small, drop-shaped enlarging.

Female genitalia. Spermatheca (Fig. 8F) with equally long ramus and nodulus, nodulus somewhat wider than ramus.

Differential diagnosis. The only species with slender tarsi and long onychium distinctly exceeding tarsomere III. Except for the tarsi, S. (N.) subnudus has femora blackish (Figs 2I–L) and aedeagus with drop-shaped apex in lateral view (Fig. 7F), similar only to that of S. angustus sp. nov. (Fig. 7A), which has elytra in male $1.21\times$ as long as wide $(1.62\times$ as long

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as wide in *S.* (*N.*) *subnudus*) (Fig. 1A) and 4 scales across one elytral interval (6–7 scales in *S.* (*N.*) *subnudus*).

Distribution. Greece (Borovec 2013).

Collection circumstances. Both specimens were collected by sweeping of a small xerothermic meadow exposed to south, with partly overgrown vegetation (S. Benedikt, pers. comm.). Remarks. The species was described from Greece without precise locality data, most likely according to a single specimen, as there is no length span or description of sexual dimorphism in the original description (Desbrochers des Loges 1892). According to Hélène Perrin (pers. comm.) there is no specimen bearing the name *subnudus* in Desbrochers's (MNHN) collection under genera *Sciaphilus*, *Sciaphobus* or *Eudipnus* thus we consider the original type material lost. Hereby we designate a neotype according to the Articles 74 and 75 of the Code (ICZN 1999) to unequivocally assign the name to a concrete species. Because the original type locality is vague we selected a specimen recently collected in Greece and well fitting the original description.

Sciaphobus (Neosciaphobus) vittatus (Gyllenhal, 1834)

(Figs 3A-D, 6M-N, 7G)

Polydrusus vittatus Gyllenhal, 1834: 152 (original description).

Sciaphilus vittatus: Stierlin (1884): 89 (key).

Sciaphobus (Neosciaphobus) vittatus: Apfelbeck (1922): 66 (review); Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 163 (catalogue); Borovec (2013): 385 (catalogue).

Type locality. 'Istria [Croatia]'

Type material examined. Lectotype: supposedly ♀ (5.06 mm long), '[blank orange small square label] / 144 [printed] / 834 Chev. Istria [grey, handwritten] / Coll. Chvrol. [printed] / Typus [red, printed] / NRM Sthlm Loan 2745/08 [green, printed] / LECTOTYPUS Polydrosus vittatus Gyllenhal, R. Borovec desig. 2013 [red, printed] / Sciaphobus vittatus (Gyllenhal), R. Borovec det. 2013 [printed]' (NHRS).

Additional material examined. CROATIA: ISTRIA COUNTY: IStria, 1 spec. (NMPC); Labin, 1 spec. (RBSC). SPLIT-DALMATIA COUNTY: Mosor, 1.vii.1953, 6 spec., Novak lgt. (NMPC); Muč, 2 spec., Karaman lgt. (NMPC); Split, 5 spec., Karaman lgt. (NMPC); Split, vii.1965, 11 spec., R. Veselý lgt. (NMPC). ŠIBENIK-KNIN COUNTY: Miočič [= Miočić], 5.vi.1990, 3 spec., J. Janák lgt. (RBSC).

Redescription (Figs 3A–D, 6M–N, 7G). Body length 3.91–4.94 mm. Body black; femora blackish, short apical portion of femora, tibiae, tarsi and antennae red brownish, clubs slightly darker. Elytra with even intervals glabrous and odd intervals densely squamose; even intervals with inconspicuous row of short, adherent, piliform setae; odd intervals with very dense, short oval appressed scales, brightly green to yellow green with faint gold sheen, completely hiding integument, 4–6 scales across one elytral interval, forming conspicuous stripes; elytral interval 1 and 9 on disc with scales sparser or even absent, with squamose stripes only in elytral declivity; elytral interval 8 in some specimens in basal third with stripe of sparse scales; squamose stripes in elytral intervals 3 and 7 connected in apical part of elytra. Pronotum with larger, long oval scales, transversally directed, sparser on disc with sparse adherent, irregularly scattered piliform setae; middle part of pronotum glabrous; lateral parts of pronotum with narrow glabrous longitudinal stripe. Head and rostrum with small short to long oval appressed scales of unequal size, densely placed in lateral parts, leaving glabrous longitudinal space in head and rostrum; apical part of rostrum in some specimens almost glabrous.

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Head (Figs 3A–D, 6M–N). Rostrum short, in males isodiamteric, in females 1.10× as wide as long; in basal half distinctly tapered anteriad, in apical half conspicuously enlarged anteriad with slightly rounded sides, at apex 1.10× wider than at base. Frons shiny, almost impunctate, flat, on same level as epifrons. Epifrons glabrous, with punctures only in lateral parts, shiny, with ill-defined, shallow, longitudinal depression in middle. Interocular space with thin, almost indistinct fovea. Eyes large, faintly projecting beyond outline of head.

Antennae in females slenderer than in males; in males funicle segment I $1.5-1.6\times$ as long as wide; segment II $1.4-1.5\times$ as long as segment I and $2.6-2.7\times$ as long as wide; segment III $1.6-1.7\times$ as long as wide; segments IV–VI $1.4-1.5\times$ as long as wide; segment VII $1.3\times$ as long as wide; in females segment I $1.5-1.6\times$ as long as wide; segment II $1.4-1.5\times$ as long as segment I and $2.8-2.9\times$ as long as wide; segments III and IV twice as long as wide; segments V and VI $1.7-1.8\times$ as long as wide; segment VII $1.5-1.6\times$ as long as wide; clubs $2.5-2.6\times$ as long as wide.

Pronotum (Figs 3A–D) wide, 1.34–1.43× as wide as long, with rounded sides, widest just behind midlength, anteriad distinctly more tapered than posteriad; disc shiny, irregularly punctate; punctures in lateral parts dense, with distance between two punctures shorter than diameter of one puncture; punctures in middle part with distance between two punctures equal to diameter of one puncture; disc with thin but visible, ill-defined impunctate stripe.

Scutellum small, triangular, glabrous.

Elytra (Fig. 3A–D) long-oval, 1.39–1.46× as long as wide, with faintly rounded sides, in basal half subparallel-sided, in apical half regularly tapered apicad; humeral calli in short distance projecting laterally, obliquely subtruncated posteriad; intervals faintly convex, striae narrow, distinctly punctate.

Legs. Pro- and mesofemora with small but well visible tooth; metafemora with large, distinct tooth. Tarsomere II isodiametric to $1.1\times$ as wide as long; tarsomere III $1.5-1.6\times$ as wide as long and $1.6-1.7\times$ as wide as II; onychium as long as tarsomere III.

Sexual dimorphism. For more details see rostrum and antennae.

Male genitalia. Aedeagus (Fig. 7G) long and slender, in ventral view widest at base, subparallel-sided with slightly concave sides in whole length, regularly tapered apicad with faintly rounded sides; in lateral view regularly curved and equally wide in whole length, apex regularly tapered with distinct, arrowhead-shaped denticle at apex.

Female genitalia. Spermatheca (Fig. 8G) shortly U-shaped, with ramus small, tuberculate and bigger, about isodiametric nodulus.

Differential diagnosis. *Sciaphobus* (*N.*) *vittatus* can be easily recognized by alternately squamose and glabrous elytral intervals (Figs 3A–D), which is a unique feature not only within *Sciaphobus*, but also among all Mediterranean Entiminae.

Distribution. Croatia (Borovec 2013).

Remarks. Gyllenhal (1834) described the species based on unknown number of specimens and stated 'Istria. Ex Musaeo Dom. Chevrolat'. Chevrolat's collection of Curculionidae is largely deposited in NHRS and we found only one specimen pinned under the name '*vittatus*' in the collection which is here designated as a lectotype to fix the name and prevent a possible misinterpretation if additional specimens are found. The lectotype is in accordance with the present-day concept of different collections of *S. vittatus*. There are three more specimens

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pinned under the name 'vittatus var. beta': one specimen '87 [handwritten] / Zmyria Schüppel [handwritten] / NRM Sthlm Loan 2748/08 [green, printed] / Typus [red, printed]' and two specimens labelled just 'Coll. Chevrolat'. The variety beta was not mentioned in the original description and the locality data also differs thus we do not consider these specimens to be a part of the original type series.

Key to the species of the subgenus Neosciaphobus

(Figs 3A–D). Size: 3.90–4.90 mm	
 Elytra with all intervals squamose, greyish or brownish (Figs 1A, C, E). Metafemora in both sexes with distinct tooth. Apex of aedeagus in ventral view w 	
2 Metafemora in both sexes with distinct tooth. Apex of aedeagus in ventral view w gularly convex sides (Figs 7A, B, C).	
 Metafemora in both sexes unarmed. Apex of aedeagus in ventral view with concave 	3
(Figs 7D, E).	7
3 Rostrum slender and long, 1.1× as long as wide (Fig. 6A). Pronotum narrow, 1	1× as
wide as long (Fig. 1A). Aedeagus in dorsal view with rounded sides (Fig. 7A). Size	: 4.30
mm. S. (N.) angustus sp	. nov.
- Rostrum wider and shorter, isodiametric or 1.1× as wide as long (Figs 6D, K, L). I	rono-
tum wider, 1.2–1.4× as wide as long (Figs 1C, E, G). Aedeagus in ventral view pa	rallel-
sided (Figs 7B, C, F).	
4 Metatarsi slender, onychium 1.3–1.4× as long as tarsomere III. Femora blackish (F	
L). Aedeagus in lateral view with drop-shaped apex (Fig. 7F). Size: 3.60–4.10 mm	
S. (N.) subnudus (Desbrochers des Loges,	
 Metatarsi shorter, onychium at most 1.1× as long as tarsomere III. Femora brownish 	
1F, H). Aedeagus in lateral view regularly pointed (Figs 7B, C)	
5 Elytra with uniformly coloured greyish scales of equal size. Colouration of elyt	
terval 7 almost identical but slightly paler than that of other intervals, with only s	
more whitish scales (Fig. 1D). Striae distinctly wider than intervals. Pronotum, hea	-
trum and femora with wide scales of uniform colour (Fig. 1C). Parthenogenetic sp	ectes.
Size: 3.60–4.60 mm S. (N.) ningnidus (Germar, 1824)	7 1·
- Elytra bicolorous, with smaller brownish and larger greyish scales. Elytral interval	
tinctly paler than other intervals, covered with whitish scales (Figs 1F, H). Striae nat	
than intervals. Pronotum, head, rostrum and femora with wide and narrow scales of rent colour (Figs 1E, G). Amphigonic species.	
6 Elytra wider, 1.26–1.28× as long as wide (Figs 1E, G). Metafemora with large toot deagus regularly tapered in apical half in lateral view (Fig. 7B). Size: 3.70–4.50 m	
(N.) globipennis Apfelbeck, 1922	III. 3.
- Elytra narrower, 1.32–1.34× as long as wide (Figs 1I, K). Metafemora with small	tooth
Aedeagus tapered in apical quarter in lateral view (Fig. 7C). Size: 3.10–3.90 mm.	
7 Eyes flat, barely projecting beyond outline of head (Figs 6G, H). Scutellum small,	trian-
gular, glabrous (Figs 2A, C). Rostrum wide and short (Figs 6G, H). Elytral intervals	

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with green scales, scales on interval 7 denser than on other intervals, hiding integument (Figs 2B, D). Elytral striae conspicuous, wide. Size: 4.40–5.80 mm.

Eyes convex, distinctly projecting beyond outline of head (Figs 6I, J). Scutellum big, subquadrate, densely squamose (Figs 2E, G). Rostrum slender and long (Figs 6I, J) Elytral intervals 6–10 with grey scales, scales on interval 7 equally sparse as on other intervals, not hiding integument (Figs 2F, H). Elytral striae inconspicuous, narrow. Size: 5.10–7.30 mm.
 S. (N.) squalidus (Gyllenhal, 1834)

Check list of Sciaphobus (Neosciaphobus) species

S. angustus sp. nov.	Albania
S. globipennis Apfelbeck, 1922	Albania

S. reitteri (Stierlin, 1884) Croatia, Bosnia and Herzegovina

S. ningnidus (Germar, 1824) Balkan, central Europe, Ukraine, west of

= *rubi* (Gyllenhal, 1813) Russia S. scheibeli Apfelbeck, 1922 Serbia

S. squalidus (Gyllenhal, 1834) Balkan, south of central Europe, Ukraine,

= beckeri (Stierlin, 1864) west of Russia, Kazakhstan

= balcanicus Apfelbeck, 1922, syn. nov.

= squalidus alternans Apfelbeck, 1922, syn. nov.

= squalidus ovalipennis Apfelbeck, 1922, syn. nov.

S. subnudus (Desbrochers des Loges, 1892) Greece S. vittatus (Gyllenhal, 1834) Croatia

Description of two new species of Sciaphobus s. str.

During taxonomic revision of the subgenus *Neosciaphobus*, we examined also additional non-type material of species belonging to the nominotypical subgenus, which could be confused with species of *Neosciaphobus*. The phylogenetic status of this species group in the subgenus *Sciaphobus* s. str. was not the aim of this paper. Surprisingly, we discovered another two new species of *Sciaphobus* s. str. in the collection of Romuald Formánek (NMPC) and in recently collected material from Montenegro, which are described here.

Sciaphobus (Sciaphobus) formaneki sp. nov. (Figs 4I–L; 6S–T, 7J)

Type locality. Montenegro, Sutorina.

Type material. HOLOTYPE: ♂, '[Montenegro] Sutorina, Paganetti [lgt.]' (NMPC). PARATYPE: 1 ♀, '[Montenegro] Krivosije [Krivošije], Paganetti [lgt.]' (NMPC). Both specimens are provided with additional red printed label: 'HOLOTYPUS [or PARATYPUS respectively], Sciaphobus formaneki spec. nov., R. Borovec et J. Skuhrovec det. 2014'.

Description (Figs 4I–L; 6S–T, 7J). Body length 3.88 mm (holotype) and 3.81 mm (paratype). Body blackish, epistome dark brownish; legs and antennae red brownish, femora except of knees darker. Elytra densely covered with greenish appressed scales, drop-shaped, 4–5 scales

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across one elytral interval. Each interval with one dense, regular row of short, semiadherent, whitish, piliform setae, slightly longer than length of one appressed scale, hardly visible in lateral view. Pronotum with dense, transversally directed long oval greenish appressed scales, narrower than elytral ones with irregularly scattered semiadherent whitish, transversally directed piliform setae; lateral parts with scales wider, not forming lateral stripes. Rostrum and head with short oval greenish appressed scales, similar to scales on elytra.

Head (Figs 4I–L; 6S–T). Rostrum short and wide, 1.06–1.07× as wide as long; in basal half tapered anteriad, in apical half distinctly enlarged anteriad with slightly rounded sides, at apex 1.17–1.21× as wide as at base. Rostrum flat, on same level as head. Frons shallowly depressed, horseshoe-shaped, glabrous and shiny, separated from epifrons by narrow but distinct carina, indistinctly angular to epifrons. Epifrons regularly tapered basad, punctate, matt. Interocular space with narrow, short, longitudinal fovea. Eyes large, moderately projecting beyond outline of head.

Antennae in female slenderer than in male; in both sexes funicle segment I and II equally long, conical, segment I wider than segment II; in male segment I twice as long as wide; segment I 2.6× as long as wide; segment III and IV 1.6× as long as wide; segment V and VI 1.5× as long as wide; segment VII 1.3× as long as wide; in female segment I 2.1× as long as wide; segment II 2.8× as long as wide; segment III 2.2× as long as wide; segment IV 1.9× as long as wide; segments V and VI 1.6× as long as wide and segment VII 1.4× as long as wide; clubs 2.5–2.6× as long as wide.

Pronotum (Figs 4I–L) wide, 1.28–1.31× as wide as long; widest at midlentgh, with regularly rounded sides, slightly more tapered anteriorly than posteriorly; disc finely, densely regularly punctate, distance between two punctures shorter than puncture diameter, punctures hidden by scales.

Scutellum small, triangular, glabrous, shiny.

Elytra (Figs 4I–L) narrow, 1.54–1.56× as long as wide with subparallel sides, posteriad narrowly tapered; humeral calli rounded, not laterally projecting. Striae narrow, punctate; intervals flat.

Legs. All femora unarmed in both sexes. Tarsomere II $1.1-1.2\times$ as long as wide; tarsomere III moderately small, $1.4-1.5\times$ as wide as long, as long as II; onychium in male equally long and in female $1.2\times$ as long tarsomere III.

Sexual dimorphism. For more details see antennae and onychium.

Male genitalia. Aedeagus (Fig. 7J) long and slender, widest at base in ventral view, subparallel-sided with indistinctly concave sides, apex elongate, regularly tapered to slender point with faintly concave sides; widest at base in lateral view, regularly curved and regularly tapered from base to apex, only tip of apex somewhat elongate.

Female genitalia. Spermatheca (Fig. 8H) U-shaped; cornu somewhat curved, tapered, rounded at apex; corpus large; ramus small, subtrapezoidal, about as long as wide; nodulus shorter than ramus, rounded.

Differential diagnosis. Rostrum on the same level as head, and frons separated from epifrons by narrow carina place *S.* (*S.*) *formaneki* sp. nov. among *Sciaphobus* s. str. in the group of four species without erect setae on elytra. The new species is very similar to *S.* (*S.*) *abbreviatus* from Italy in narrow body with subparallel elytra, large size and green appressed scales (Figs 4I, J).

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Sciaphobus (S.) formaneki sp. nov. is easily separated from S. (S.) abbreviatus (characters of the latter in parentheses) by metafemora in both sexes unarmed (distinctly toothed), rostrum longer, $1.06-1.07\times$ as wide as long $(1.22-1.25\times)$, scutellum triangular, glabrous (quadrate, squamose), funicle segment 1 and 2 equally long (segment 2 distinctly longer than 1), aedeagus with long and slender apex in dorsal and lateral view (apex short and wide in dorsal and lateral view), and spermatheca with ramus subtrapezoidal, isodiametric (with cylindrical ramus), three times as long as wide like in S. (S.) abbreviatus.

Etymology. The species is named after eminent Czech entomologist, Romuald Formánek (1857–1927), specialist on Entiminae, in whose collection we found both specimens. **Distribution.** Montenegro.

Sciaphobus (Sciaphobus) pelikani sp. nov.

(Figs 5A-D, 6U-V, 7K)

Type locality. Montenegro, Rumija Mts., 1 km NE of Stegvaša [or Štegvaša or Shtegvasha], 42°03′51.85″N, 19°22′21.13″E, 485 m a.s.l.

Type material. Holotype. ♂, 'Montenegro, (Ulcijn), Rumija Mts., 1 km NE of Stegvaša, 42°03′51.85″ N 19°22′21.13″ E, 485 m, 29.5.2014, vápencové skalky, osmyk vegetace [limestone rocks, sweeping of vegetation], lgt. J. Pelikán [printed]' (NMPC). Paratypes: 1 ♂, 8 ♀♀, the same data as holotype (1 ♂, 6 ♀♀ JPHC, 1 ♀ RBSC, 1 ♀ JSPC); 6 ♂♂, 10 ♀♀, 'Monte Negro, 1 km of NE Stegvaša, Mts. Rumija, 29.5.2014, 475 m.n.m., lgt. Richard Škoda [printed]' (4 ♂♂, 10 ♀♀ RŠLC, 1 ♂ RBSC, 1 ♂ JSPC); 1 ♂, 'Montenegro, (Ulcijn), Brajša env., 42°01′45.39″ N 19°19′00.69″ E, 68 m, 31.5.−1.6.2014, okraj Querceta, osmyk vegetace [edge of Quercetum, sweeping of vegetation], lgt. J. Pelikán [printed]' (JPHC). All specimens provided with additional red printed labels: 'HOLOTYPUS [or PARATYPUS respectively], Sciaphobus pelikani spec. nov., R. Borovec et J. Skuhrovec det. 2014'.

Description (Figs 5A–D, 6U–V, 7K). Body length 3.88 mm holotype, paratypes 3.63–4.38 mm males, 4.41–5.31 mm females. Body black; antennae red brownish with at least apical part of clubs darker; tarsi, tibiae and short apical part of femora brownish to dark brownish. Elytra densely covered with drop-shaped, bright green appressed scales, 6–8 scales across one elytral interval. Each interval with 2–3 dense, irregular rows of short, semierect, whitish, piliform setae, shorter than half the width of one interval, well visible in lateral view. Pronotum densely covered with transversally directed long oval bright green appressed scales, narrower than elytral ones with dense, irregularly scattered appressed, whitish, transversally directed piliform setae, not visible in lateral view. Rostrum and head with identical vestiture as pronotum, only piliform setae on rostrum directed longitudinally and visible in lateral view.

Head (Figs 5A–D, 6U–V). Rostrum short and wide, 1.17–1.25× as wide as long; in basal half slightly tapered anteriad, in apical half subparallel-sided with straight sides, at apex 1.05–1.13× as wide as at base. Rostrum flat, on same level as head. Frons shallowly depressed, semicircular, glabrous, shiny, with several individual appressed small scales, separated from epifrons by narrow distinct carina, slightly angular to epifrons. Epifrons subparallel-sided, punctate, punctures completely hidden by scales. Interocular space with narrow, longitudinal fovea. Eyes large, moderately convex, hardly projecting beyond outline of head.

Antennae in females with funicle segments I and II slenderer than in males; in male segment I $1.5\times$ as long as wide; segment II $1.8\times$ as long as wide and $1.1\times$ as long as segment I; in females segment I $1.6\times$ as long as wide; segment II $2.3-2.4\times$ as long as wide and $1.2\times$ as long as segment I; in both sexes segment III $1.6\times$ as long as wide; segment IV $1.5\times$ as long

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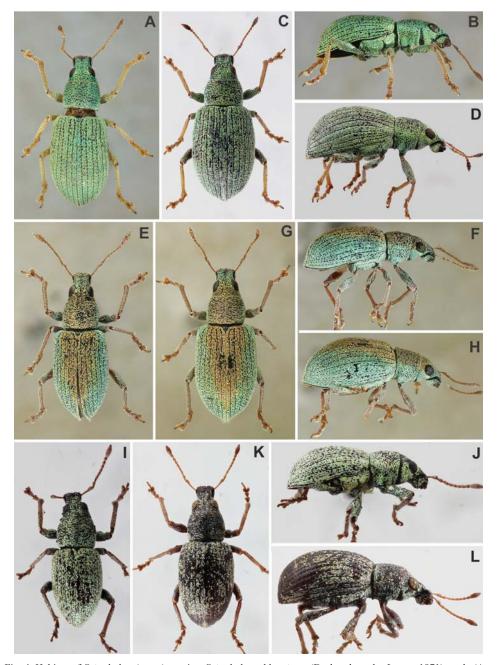


Fig. 4. Habitus of *Sciaphobus* (s. str.) species; *Sciaphobus abbreviatus* (Desbrochers des Loges, 1871): male (A – dorsal view; B – lateral view), female (C – dorsal view; D – lateral view); *Sciaphobus dorsualis* (Gyllenhal, 1834): male (E – dorsal view; F – lateral view), female (G – dorsal view; H – lateral view); *Sciaphobus formaneki* sp. nov.: Holotype, male (I – dorsal view; J – lateral view), Paratype, female (K – dorsal view; L – lateral view).

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Fig. 5. Habitus of *Sciaphobus* (s. str.) species; Habitus: *Sciaphobus pelikani* sp. nov.: Holotype, male (A – dorsal view; B – lateral view), Paratype, female (C – dorsal view; D – lateral view); *Sciaphobus rasus* (Seidlitz, 1867): male (E – dorsal view; F – lateral view), female (G – dorsal view; H – lateral view).

as wide; segment V $1.4 \times$ as long as wide; segment VI $1.5 \times$ as long as wide; segment VII $1.4 \times$ as long as wide; clubs $2.4-2.5 \times$ as long as wide.

Pronotum (Figs 5A–D) wide, in males $1.30-1.32\times$ as wide as long, in females $1.35-1.41\times$ as wide as long; widest just before midlength, with rounded sides, anteriorly more tapered than posteriorly; disc finely, regularly, densely punctate, distance between two punctures shorter than puncture diameter, punctures hidden by scales.

Scutellum small, triangular, glabrous, shiny.

Elytra (Figs 5A–D) oval, distinctly narrower in males than in females, in males $1.57-1.60 \times$ and in females $1.35-1.42 \times$ as long as wide, with regularly rounded sides, in females more

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than in males, posteriad narrowly tapered; humeral calli rounded, not laterally projecting. Striae narrow, punctate; intervals wide and flat.

Legs. All femora unarmed in both sexes. Tarsomere II 1.1–1.2× as wide as long; tarsomere III 1.5–1.6× as wide as long and 1.3–1.4× as wide as II; onychium 1.2× as long as tarsomere III. Sexual dimorphism. For more details see body size, antennae, pronotum and elytra.

Male genitalia. Aedeagus (Fig. 7K) long and slender, equally wide in whole length in ventral view, subparallel-sided, apex tapered with faintly convex sides, apex slender, short; regularly curved in lateral view, equally wide in whole lengt, apex elongate with well visible short denticle. The male from Brajša has apex of aedeagus slightly wider in ventral view.

Female genitalia. Spermatheca (Fig. 8I) U-shaped; cornu faintly curved, rounded at apex; corpus long, ramus small but distinct, isodiametric; nodulus not developed.

Differential diagnosis. Sciaphobus (S.) pelikani sp. nov. is the only species within the nominotypical subgenus having 2-3 irregular rows of short, semierect setae well visible in lateral view, while all other species have either conspicuously long, erect setae, or only one irregular row of short, semiadherent setae hardly visible in lateral view. The bright green elytra with strongly rounded sides in females (Figs 5A, C) place S. (S.) pelikani sp. nov. next to S. (S.) rasus (Figs 5E, G), from which it can be distinguished, apart from elytral setae, also by funicle segment 2 longer than segment 1 (S. (S.) rasus has segments 1 and 2 equally long), longer elytra in both sexes, in males 1.57–1.60× and in females 1.35–1.42× as long as wide (S. (S.) rasus has elytra in males 1.42–1.48× and in females 1.29–1.38× as long as wide), more tapered apical part of aedeagus in ventral view (Fig. 7K) (S. (S.) rasus has apical part of aedeagus less tapered (Fig. 7L)) and larger body size, 3.6–5.3 mm long (S. (S.) rasus is 2.8–3.8 mm long). Sciaphobus (S.) pelikani sp. nov. has aedeagus and spermatheca very similar to S. (S.) dorsualis (characters of it in parentheses), but S. (S.) pelikani sp. nov. differs in unicoloured green elytra and pronotum (brownish spot on elytra and pronotum), elytra with regularly rounded sides with humeral calli rounded (subparallel-sided with slightly laterally projecting humeral calli), scutellum triangular, glabrous (subquadrate and at least at base squamose), 2–3 rows of elytral semierect setae, shorter than half the width of one interval, well visible in lateral view (2–3 rows of semiadherent setae hardly longer than length of appressed scales and barely visible in lateral view). The whitish elytral setae of S. (S.) pelikani sp. nov. make it partly similar also to S. (S.) scitulus (Germar, 1824), the only other species with whitish long erect setae on elytra, having also green body vestiture, slender funicle segments, pronotum without erect setae and metafemora unarmed, but S. (S.) scitulus has elytral setae long, erect, forming 1–2 regular rows (S. (S.) pelikani sp. nov. has setae short, semierect, forming 2–3 irregular rows), funicle segments 1 and 2 equally long (S. (S.) pelikani sp. nov. has segment 2 longer than segment 1) and aedeagus wider at apex (S. (S.) pelikani sp. nov. has aedeagus slender at apex).

Etymology. The species is dedicated to Jan Pelikán (Hradec Králové, Czech Republic), specialist in Chrysomelidae, one of the collectors of the type series.

Distribution. Montenegro.

Collection circumstances. The type material was collected by sweeping of low vegetation in limestone rocky terrain in Stegvaša (Fig. 9A) and by sweeping of low vegetation at the edge of oak forest in Brajša (J. Pelikán, pers. comm.).

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Key to species of Sciaphobus s. str. without long erect setae on elytra

- 1 Metafemora in both sexes with distinct tooth (Figs 4B, D). Italy. Size: 3.90–5.20 mm. ... *S.* (*S.*) *abbreviatus* (Desbrochers des Loges, 1871)

- Entire pronotum and elytra bright green (Figs 5A, C). Elytra without laterally projecting humeral calli (Figs 5A, C). Scutellum glabrous.
- 3 Elytra with 2–3 irregular rows of short, semierect setae, clearly visible in lateral view. Funicle segment 2 longer than segment 1. Montenegro. Size: 3.63–5.31 mm. S. (S.) pelikani sp. nov.
- Elytra with one irregular row of short, semiadherent setae, hardly visible in lateral view.
 Funicle segments 1 and 2 equally long.
- 4 Elytra short oval with rounded sides, in males 1.4–1.5× and in females 1.3–1.4× as long as wide (Figs 5E, G). Rostrum in apical part parallel-sided. Aedeagus with short and wide apex in dorsal and lateral view (Fig. 7L). Spermatheca with ramus cylindrical, twice as long as wide (Fig. 8J). Bosnia and Herzegovina, Croatia. Size: 2.80–3.80 mm. *S.* (*S.*) *rasus* (Seidlitz, 1867)
- Elytra elongate-oval with subparallel sides, 1.5–1.6× as long as wide (Figs 4I, K). Rostrum in apical part enlarged apicad. Aedeagus with long and slender apex in dorsal and lateral view (Fig. 7J). Spermatheca with ramus subtrapezoidal, isodiametric (Fig. 8H). Montenegro. Size: 3.80–3.90 mm.

Additional studied species of Sciaphobus s. str.

During our taxonomic revision of the subgenus *Neosciaphobus*, we had the opportunity to study also some type material of the species belonging to the nominotypical subgenus given below.

Sciaphobus (Sciaphobus) abbreviatus (Desbrochers des Loges, 1871)

Polydrusus abbreviatus Desbrochers des Loges, 1871: 234 (original description); Winkler (1932): 1465 (catalogue); Dalla Torre et al. (1937): 114 (catalogue).

Sciaphobus abbreviatus: D'Amore-Fracassi (1906): 194 (noted); Solari (1950): 35 (noted); Pesarini (1980): 21 (noted); Francia (1986): 54 (noted); Abbazzi & Osella (1992): 314 (check-list); Abbazzi et al. (1994): 28 (check-list). Sciaphobus (Sciaphobus) abbreviatus: Borovec (2013): 385 (catalogue).

Sciaphobus psittacinus K. Daniel, 1904: 85 (original description); D'AMORE-FRACASSI (1906): 194 (synonymy). Sciaphobus (Sciaphobus) psittacinus: WINKLER (1932): 1470 (catalogue, as valid species); Dalla Torre et al. (1937): 161 (catalogue, as valid species).

Type localities. *Polydrusus abbreviatus*: 'Tyrol [Tirol, but South Tirol in time of description belongs to today's Italy]'; *Sciaphobus psittacinus*: 'Molise (Provinz Neapel)'.

Type material examined. *Polydrusus abbreviatus*: not studied. *Sciaphobus psittacinus*: HOLOTYPE: supposedly ♀ (5.06 mm long), 'Molise (Bertolini) [handwritten] / Provinz Neapel [handwritten] / psittacinus Daniel [handwritten] / Type von [red, printed] / Sciaphobus psittacinus [handwritten] / HOLOTYPUS Sciaphobus psittacinus K. Daniel,

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1904, R. Borovec et J. Skuhrovec vid. 2014 [red, printed] / Sciaphobus abbreviatus Desbrochers, R. Borovec det. 2014 [printed] (ZSMG).

Remarks. The type of *P. abbreviatus* is deposited in Desbrochers's collection (MNHN) and was examined by Pesarini (1980), who confirmed the synonymy of *S. psittacinus* with *P. abbreviatus*. The synonymy was originally proposed by D'Amore-Fracassi (1906) but omitted by Winkler (1932) and Dalla Torre et al. (1937) and reintroduced by Solari (1950).

Daniel (1904) described *S. psittacinus* based on a single specimen as he stated 'das einzige Stück' from 'Molise (Provinz Neapel), von Dr. Bertolini eingesandt'. The holotype is well preserved and clearly fits with all the material of *Sciaphobus* s. str. without erect setae known from Italy.

Sciaphobus (Sciaphobus) barbatulus (Germar, 1824)

Eusomus barbatulus Germar, 1824: 460 (original description).

Sciaphobus (Sciaphobus) barbatulus: Apfelbeck (1922): 67 (review); Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 160 (catalogue); Dieckmann (1980): 253 (fauna); Borovec (2013): 385 (catalogue).

Sciaphilus smaragdinus Boheman, 1840: 915 (original description).

Sciaphobus (Sciaphobus) barbatulus ab. smaragdinus: Apfelbeck (1922): 67 (review); Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 160 (catalogue).

Type locality. Eusomus barbatulus: 'Illyria [historical territorry in western Balkans corresponding roughly to present day Slovenia, Croatia and southwestern Austria]', Sciaphilus smaragdinus: 'Dalmatia'

Type material examined. Lectotype (here designated): ♀ (5.69 mm long, funicle with club missing), '♀ [handwritten] / Thylacites smaragdinus Dej. Dalmatia [handwritten] / Typus [red, printed] / NRM Sthlm Loan 2733/08 [green, printed] / LECTOTYPUS Sciaphilus smaragdinus Boheman, R. Borovec desig. 2013 [red, printed] / Sciaphobus barbatulus (Germar), R. Borovec det. 2013 [printed].'

Remarks. Boheman (1854) described *S. smaragdinus* from unknown number of specimens and stated 'Dalmatia, A. Dom. Germar et Com. Dejean missus. Mus Schh.' We found only one specimen in the NHRS collections that belongs to the type series and comes from Dejean's collection. There are two more specimens pinned under the name '*smaragdinus*', however these bear different labels 'Dalmat' and 'Ferrari' and we do not assume that they belong to the type series.

Sciaphobus (Sciaphobus) curvimanus Apfelbeck, 1922

Sciaphobus (Sciaphobus) curvimanus Apfelbeck, 1922: 68 (original description); Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 161 (catalogue); Borovec (2013): 385 (catalogue).

Sciaphobus Mülleri Penecke, 1928: 127 (original description), syn. nov.

Sciaphobus (Sciaphobus) Mülleri: Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 161 (catalogue). Sciaphobus (Sciaphobus) muelleri: Borovec (2013): 385 (catalogue).

Type localities. Sciaphobus curvimanus: 'Montenegro'; S. Mülleri: 'bei St. Giovanni di Medua in Albanien [= Albania, Shëngjin]'.

Type material examined. Sciaphobus curvimanus: not examined.

Sciaphobus Mülleri: HOLOTYPUS: \$\hat{2}\$, 'Albanien, S. Giovanni d. M. [handwritten] / Sciaphobus Mülleri m. Penecke det. [partly handwritten, partly printed] / Samml. K. A. Penecke, Geschenk 1940.20 [printed] / Staatl. Museum für Tierkunde Dresden [printed] / HOLOTYPUS Sciaphobus muelleri Penecke, 1928, R. Borovec vid. 2001 [red, printed]' (SMTD).

Additional material examined. ALBANIA: LEZHË COUNTY: Miloti, 3 spec. (NMPC).

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Remarks. Penecke (1928) described this species based on a single female specimen from 'bei St. Giovanni di Medua in Albanien'. The holotype is conspecific to specimens from Albania we recently studied and which we assumed to be *S. curvimanus* Apfelbeck, 1922, because of all femora with distinct tooth, wide conspicuous striae, blackish legs and antennae and also identical aedeagus as depicted by Apfelbeck (1922). We have not studied the type of *S. curvimanus* but the original description provides enough evidence thus we propose the synonymy and *S. muelleri* becomes a new junior subjective synonym of *S. curvimanus*. We assume that Apfelbeck's publication was probably not known to Penecke and that is why he described the taxon.

Sciaphobus (Sciaphobus) scitulus (Germar, 1824)

Eusomus scitulus Germar, 1824: 459 (original description).

Sciaphobus (Sciaphobus) scitulus: Apfelbeck (1922): 18 (review); Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 161 (catalogue); Dieckmann (1980): 253 (fauna); Borovec (2013): 385 (catalogue).

Type locality. 'Illyria [historical territorry in western Balkans corresponding roughly to present day Slovenia, Croatia and southwestern Austrial'.

Type material examined. Lectotype: ♀ (3.81 mm long), 'MLU Halle, WB Zoologie, S.-Nr., T.-Nr. [printed] 9/1/21 [handwritten] / Carnistis [handwritten] / LECTOTYPUS [printed] Sciaphobus scitulus Germ. [handwritten] Design. Dieckmann [printed] 1965 [handwritten]' (MLUH). PARALECTOTYPES: 'MLU Halle, WB Zoologie, S.-Nr., T.-Nr. [printed] 9/1/21 [handwritten] / + [handwritten] / PARALECTOTYPUS [printed] Sciaphobus scitulus Germ. [handwritten] Design. Dieckmann [printed] 1965 [handwritten]'. All specimens were provided with the following additional labels: 'LECTOTYPUS [or PARALECTOTYPUS respectively], Eusomus scitulus Germar, R. Borovec et J. Skuhrovec desig. 2014 [red, printed] / Sciaphobus scitulus (Germar), R. Borovec et J. Skuhrovec det. 2014 [printed]'.

Remarks. Germar (1824) described the species generally from 'Illyria' and did not specify the number of specimens he had at disposal. There are six specimens pinned under the handwritten label 'scitulus Grm. Sr., Sllys. Germ.', in Germar's collection (MLUH), which were labelled as lectotype and paralectotypes by Dieckmann. However, he never published the lectotype designation (L. Behne, pers. comm.). We designate one female as a lectotype to stabilize the nomenclature in the group. The whole type series is in accordance with the present-day concept of the species as used in the literature.

Sciaphobus (Sciaphobus) setosulus (Germar, 1824)

Eusomus setosulus Germar, 1824: 461 (original description).

Sciaphobus (Sciaphobus) setosulus: Apfelbeck (1922): 18 (review); Winkler (1932): 1470 (catalogue); Dalla Torre et al. (1937): 161 (catalogue); Dieckmann (1980): 253 (fauna); Borovec (2013): 385 (catalogue).

Type locality. 'Illyria [historical territorry in western Balkans corresponding roughly to present day Slovenia, Croatia and southwestern Austria]'.

Type material examined. Lectotype (present designation): ♀ (3.84 mm long), '[triangular handwritten label with about 2 illegible letters] / MLU Halle, WB Zoologie, S.-Nr., T.-Nr. 9/1/21 [partly printed, partly handwritten]' (MLUH). Paralectotypes: 3 unsexed, 'MLU Halle, WB Zoologie, S.-Nr., T.-Nr. 9/1/21 [partly printed, partly handwritten]' (MLUH). All specimens provided with additional labels: 'LECTOTYPUS Eusomus setosulus Germar, R. Borovec et J. Skuhrovec desig. 2014 [red, printed] / Sciaphobus setosulus (Germar) R. Borovec det. 2014 [printed]'.

Remarks. Germar (1824) described the species generally from 'Illyria' and did not specify the number of specimens he had at disposal. There are four specimens pinned under the

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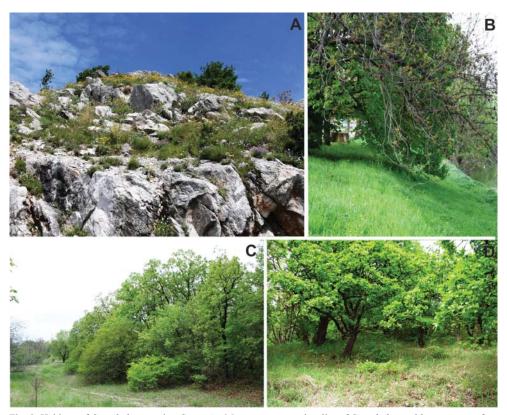


Fig. 9. Habitats of *Sciaphobus* species; Stegvaša, Montenegro, type locality of *Sciaphobus pelikani* sp. nov., foto J. Pelikán (A); bank of Elbe river in Hradec Králové (Czech Republic), locality of *Sciaphobus ningnidus* (Germar, 1824), foto J. Krátký (B); Dobrogea in Babadag Mts. (Romania), locality of *Sciaphobus squalidus* (Gyllenhal, 1834), foto J. Krátký (C); Mariagyüd in Villányi Mts. (Hungary), locality of *Sciaphobus squalidus* (Gyllenhal, 1834), foto J. Krátký (D).

handwritten label 'setosulus Dhl. Schönh., hirtellus Stm., aurarius Dej., Carniol. Schm.' in Germar's collection (MLUH). We designate one female as a lectotype to stabilize the nomenclature in the group. All four specimen are in accordance with the present-day concept of the species as used in the literature.

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