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**A revision of *Eusclerus* SHARP, with a redescription of
Sciocharis bupthalma SCHEERPELTZ
(Coleoptera: Staphylinidae: Paederinae: Medonina)**

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Abstract: Based on an examination of type material, the medonine genus *Eusclerus* SHARP 1886 and its species are revised, redescribed, illustrated, and keyed. The currently known distribution of the genus is confined to Guatemala. A lectotype is designated for *Sciocharis bupthalma* SCHEERPELTZ 1970. This species, which has been recorded only from Venezuela, is redescribed and illustrated.

Key words: Coleoptera, Staphylinidae, Paederinae, Medonina, *Eusclerus*, *Sciocharis*, Neotropical region, Guatemala, Venezuela, taxonomy, lectotype designation, key to species.

Introduction

The medonine genus *Eusclerus* was described by SHARP (1886) and originally included two species from Guatemala, *E. rugifrons* SHARP 1886 and *E. sordidus* SHARP 1886. *Eusclerus rugifrons* was subsequently designated as the type species of the genus (LUCAS 1920). Evidently unaware of this designation, BLACKWELDER (1939) designated *E. sordidus* as the type species. This error was revised by BLACKWELDER (1952), who indicated *E. rugifrons* as the type species. Since 1886, no additional species have been described; not even additional records of *E. rugifrons* and *E. sordidus* have been reported (e.g., BLACKWELDER 1944; NEWTON pers. comm.). NAVARRETE-HEREDIA et al. (2002) placed the genus in the "*Medon* generic complex". The only previously available illustration of *Eusclerus* is a habitus image provided by SHARP (1886). The habitus illustration of an "*Eusclerus* sp." (figure 20.49) in NAVARRETE-HEREDIA et al. (2002) clearly refers to a different genus. According to CAMERON (1924), *Eusclerus* differs from *Neosclerus* CAMERON 1924 by the bilobed labrum.

Recently collected material from Venezuela included four specimens of a species of Medonina, which at first glance strongly resembled *Neosclerus*, a genus distributed in the East Palaearctic and Oriental regions that was revised recently (ASSING 2011). Lee H. HERMAN (pers. comm.) suggested that this species may refer to *Eusclerus*. A subsequent examination of the type material of *E. rugifrons* and *E. sordidus*, however, revealed that the specimens from Venezuela belong to a species of *Sciocharis* LYNCH 1884.

Material and methods

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

BMNH The Natural History Museum, London (R.G. Booth)

NHMW Naturhistorisches Museum Wien (H. Schillhammer)

cAss..... author's private collection

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

Head length was measured from the anterior margin of the frons to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra. The length of the aedeagus was measured from the apex of the ventral process to the base of the capsule. The parameral side of the aedeagus (i.e., the side where the sperm duct enters) is referred to as the ventral, the opposite side as the dorsal aspect.

Eusclerus SHARP 1886

Eusclerus SHARP 1886: 375 f.

Type species: *Eusclerus rugifrons* SHARP 1886; designation by LUCAS (1920).

Redescription: Body of small size, body length 2.8-3.5 mm. Habitus similar to that of *Sunius* STEPHENS 1829 and *Neosclerus*.

Head with coarse and dense punctation (Figs 3, 8). Eyes conspicuously large (Figs 2, 6). Neck broad, slightly less than half as broad as maximal head width (including eyes). Gular sutures narrowly separated, distance between sutures in the middle subequal to width of antennomere III. Antenna of similar morphology as that of *Sunius* and *Neosclerus*. Mandibles moderately slender and with three distinct molar teeth (Fig. 25). Labrum distinctly transverse; anterior margin notched in the middle, without distinct teeth on either side of this notch (Fig. 26). Maxillary palpus four-jointed; palpomere III 2-2.5 times as long as broad, much larger than palpomeres I-II; palpomere IV fine, short, and needle-shaped. Labial palpus three-jointed (Fig. 27); ligula with 12 stout setae (Fig. 28).

Pronotum approximately as wide as long and somewhat narrower than head (Figs 2, 6); punctation dense and granulose; midline posteriorly with narrow impunctate band (Figs 4, 8). Elytra of variable length. Protarsi apparently without sexual dimorphism, weakly dilated. Metatarsus of variable length; metatarsomeres I-IV of gradually decreasing length; I somewhat longer than II.

Abdomen narrower than elytra; punctation fine, dense on tergites III-VI, somewhat sparser on posterior tergites.

♂: sternite VII with weakly concave posterior margin, otherwise unmodified; sternite VIII with relatively small posterior excision.

Comment: In the original description of the genus, SHARP (1886) erroneously states that the labrum is "rounded in front, but divided by a deep angular incision almost to the base" and that the mandibles have "feeble teeth". The shape of the labrum is the only character indicated by CAMERON (1924) to distinguish *Neosclerus* from *Eusclerus*. The

erroneous description of the mandibles is evidently based on the condition of the holotype of *E. rugifrons*, in which the teeth are somewhat reduced as a result of either damage or wear.

D i a g n o s i s : The genus is characterised and distinguished from other genera of Medonina resembling *Sunius* particularly by the combination of conspicuously large eyes and a granulosely punctate pronotum. Species of *Sciocharis* with similarly large eyes have a bidentate anterior margin of the labrum, bidentate mandibles, and an antenna of different morphology (antennomeres I-II enlarged and III-XI thin). In *Neosclerus*, the punctuation of the pronotum is not granulose and the ligula is of different shape and chaetotaxy.

D i v e r s i t y : The genus currently includes two species from Guatemala.

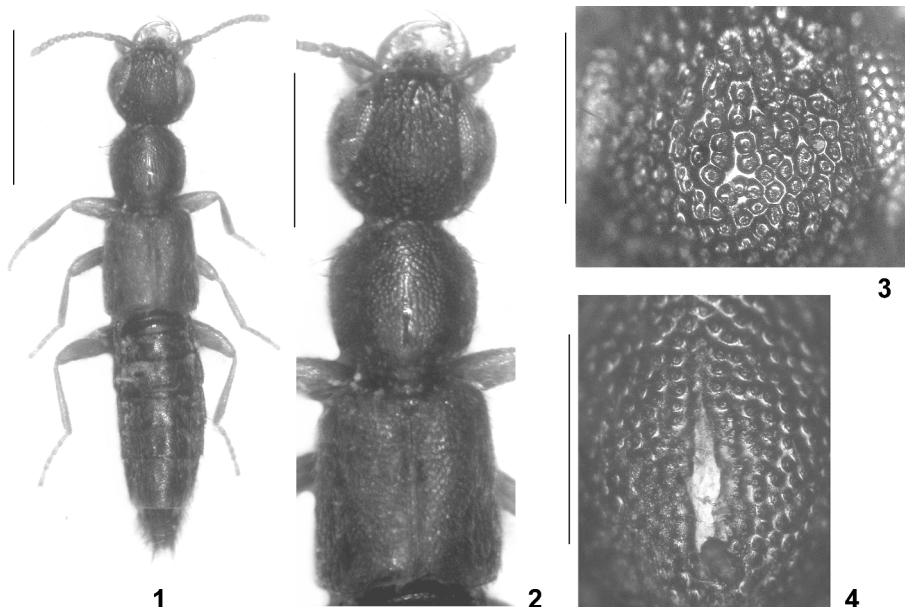
The species of *Eusclerus*

Eusclerus rugifrons SHARP 1886 (Figs 1-4)

Eusclerus rugifrons SHARP 1886: 576.

T y p e m a t e r i a l e x a m i n e d : Holotype ♀: "*Eusclerus rugifrons*. Type D.S. Guatemala City Champion. [written on mounting label] / Guatemala City. Champion. / Type / B.C.A. Col. I. 2. *Eusclerus rugifrons*, Sharp. / Sharp Coll. 1905.-313. / Holotypus ♂ *Eusclerus rugifrons* Sharp, rev. V. Assing 2011 (BMNH).

C o m m e n t : The original description is based on a "unique example", "probably a female" from "Guatemala, near the city (Champion)" (SHARP 1886).



Figs 1-4: *Eusclerus rugifrons* SHARP, holotype: (1) habitus; (2) forebody; (3) median dorsal portion of head; (4) median dorsal portion of pronotum. Scale bars: 1: 1.0 mm; 2: 0.5 mm; 3-4: 0.2 mm.

R e d e s c r i p t i o n : Body length 3.4 mm. Habitus as in Fig. 1. Coloration: head, pronotum, and abdomen blackish; elytra brown, somewhat paler near posterior margin; legs and antennae dark-reddish.

Head (Fig. 2) 1.12 times as broad as long; punctation coarse and very dense (interstices reduced to narrow ridges), but not distinctly confluent (Fig. 3). Eyes enormous. Posterior outline of head behind eyes evenly convex in dorsal view.

Pronotum (Fig. 2) approximately as broad as long and strongly convex in cross-section; punctation dense and granulose (Fig. 4); midline with distinct, moderately narrow glossy band posteriorly (Fig. 4).

Elytra long, 1.05 times as long as, and much wider than pronotum (Fig. 2); punctation dense and fine, not granulose. Hind wings apparently fully developed. Metatarsus slender, metatarsomeres III and IV distinctly oblong.

Abdomen widest at segment V; posterior margin of tergite VII with palisade fringe.

♂: unknown.

D i s t r i b u t i o n : *Eusclerus rugifrons* has become known only from the type locality in Guatemala.

***Eusclerus sordidus* SHARP 1886 (Figs 5-11, 25-28)**

Eusclerus rugifrons SHARP 1886: 576.

T y p e m a t e r i a l e x a m i n e d : Holotype ♂: "*Eusclerus sordidus*. Type D.S. Cubilguitz. Guat. Champion. [written on mounting label] / Cubilguitz, Vera Paz. Champion. / Type / B.C.A. Col. I. 2. *Eusclerus sordidus*, Sharp. / Sharp Coll. 1905.-313. / Holotypus ♂ *Eusclerus sordidus* Sharp, rev. V. Assing 2011 (BMNH).

C o m m e n t : In the species description of *E. sordidus* SHARP (1886) does not specify the number of types, but in the description of *Eusclerus* he refers to the type material of *E. rugifrons* and *E. sordidus* as "two unique examples", so that the above type specimen has holotype status.

R e d e s c r i p t i o n : Body length 3.0 mm. Habitus as in Fig. 1. Coloration: forebody dark reddish-brown; abdomen blackish-brown; legs reddish-yellow; antennae reddish.

Head (Fig. 6) 1.25 times as broad as long; punctation moderately coarse, very dense (interstices reduced to narrow ridges), and largely confluent (Fig. 7). Eyes enormous. Temples short, but visible; posterior angles of head noticeable; posterior margin of head truncate. Mouthparts as in Figs 25-28.

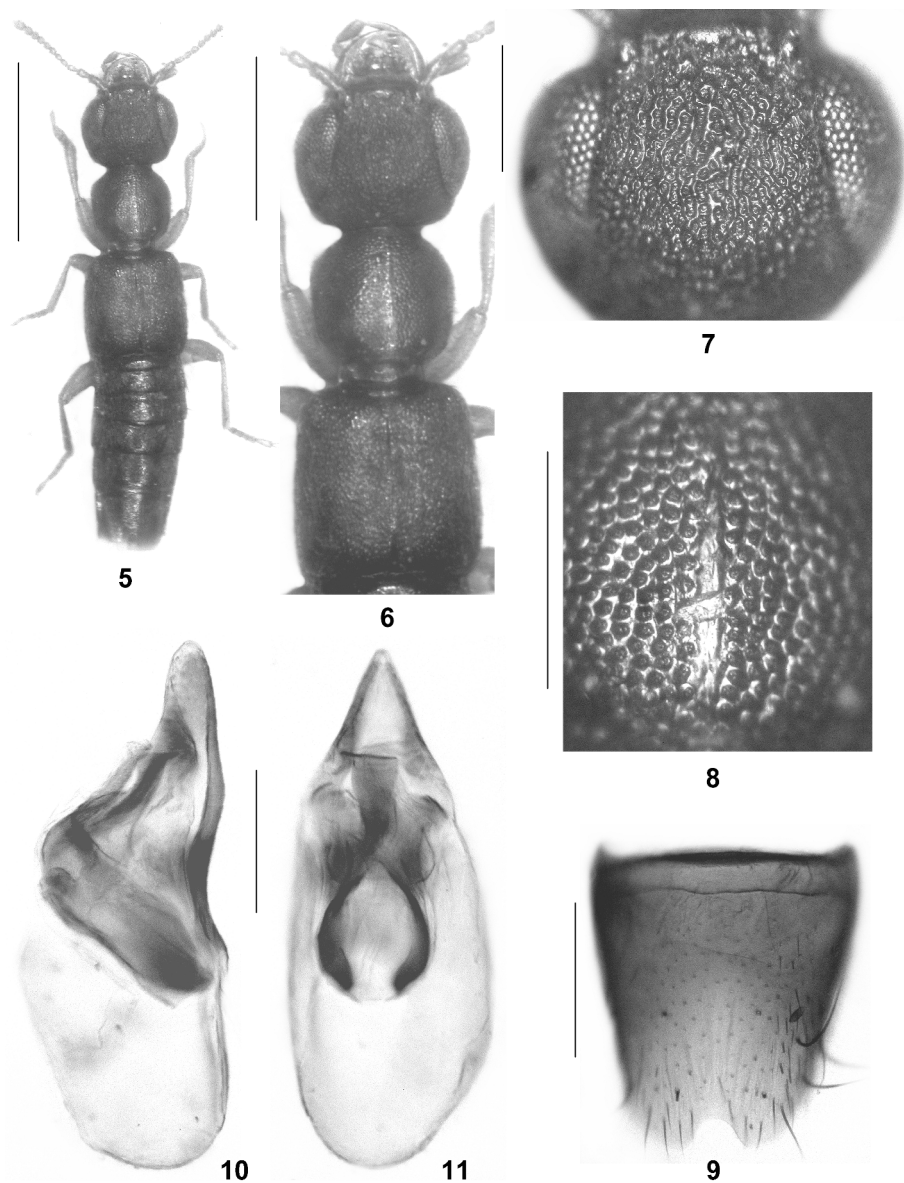
Pronotum (Fig. 6) approximately 1.05 times as broad as long and strongly convex in cross-section; punctation dense and granulose (Fig. 8); midline with very narrow glossy band posteriorly (Fig. 8).

Elytra broad and moderately long, 1.05 times as long as pronotum (Fig. 6); punctation dense and fine, weakly granulose. Hind wings apparently fully developed. Metatarsus short, metatarsomeres III and IV not oblong.

Abdomen widest at segment V; posterior margin of tergite VII with palisade fringe.

♂: sternite VII with weakly concave posterior margin; sternite VIII oblong and with small posterior excision (Fig. 9); aedeagus as in Figs 10-11.

D i s t r i b u t i o n : *Eusclerus sordidus* has become known only from the type locality in Guatemala.



Figs 5-11: *Eusclerus sordidus* SHARP, holotype: (5) habitus; (6) forebody; (7) median dorsal portion of head; (8) median dorsal portion of pronotum; (9) male sternite VIII; (10-11) aedeagus in lateral and in ventral view. Scale bars: 5: 1.0 mm; 6: 0.5 mm; 7-9: 0.2 mm; 10-11: 0.1 mm.

Key to the species of *Eusclerus*

- 1 Head and pronotum blackish; elytra dark-brown. Head with coarse and dense, but not distinctly confluent punctation (Fig. 3); posterior angles obsolete (Fig. 2). Pronotum with broader impunctate band in the middle. Elytral punctation not granulose. Metatarsus slender, metatarsomeres III and IV distinctly oblong *E. rugifrons* SHARP
- Forebody uniformly dark reddish-brown. Head with less coarse and largely confluent punctation (Fig. 7); posterior angles noticeable (Fig. 6). Elytral punctation granulose. Metatarsus short, metatarsomeres III and IV not oblong. ♂: sternite VII as in Fig. 9; aedeagus as in Figs 10-11 *E. sordidus* SHARP

On *Sciocharis bupthalma*

Sciocharis bupthalma SCHEERPELTZ 1970 (Figs 12-24)

Sciocharis bupthalma SCHEERPELTZ 1970: 235.

Type material: Lectotype ♂, present designation: "♂ / Venezuela, Umg. Caracas, leg. Marcuzzi / Rancho Grande 4.49 / *Sciocharis bupthalma* Scheerp. / *bupthalma* Scheerp. / *Typus Sciocharis bupthalma* O. Scheerpeltz / ex coll. Scheerpeltz / Lectotypus ♂ *Sciocharis bupthalma* Scheerpeltz, desig. V. Assing 2011 (NHMW).

Comment: *Sciocharis bupthalma* was described in a key to the Central and South American *Sciocharis* species. Neither the precise locality ("Venezuela") nor the number of type specimens are specified (SCHEERPELTZ 1970). The sole specimen in the Scheerpeltz collection at the NHMW, a male, is designated as the lectotype.

Additional material examined: Venezuela: 3♂♂, 1♀, Carabobo, Mun. Bejuma, El Maquero, 1200-1300 m, 9/21.I.2007, leg. Brachat (cAss).

Redescription: Body length 2.8-3.2 mm. Habitus as in Fig. 12. Coloration: body blackish; legs dark-brown with paler tarsi; antennae brown with paler apical antennomeres.

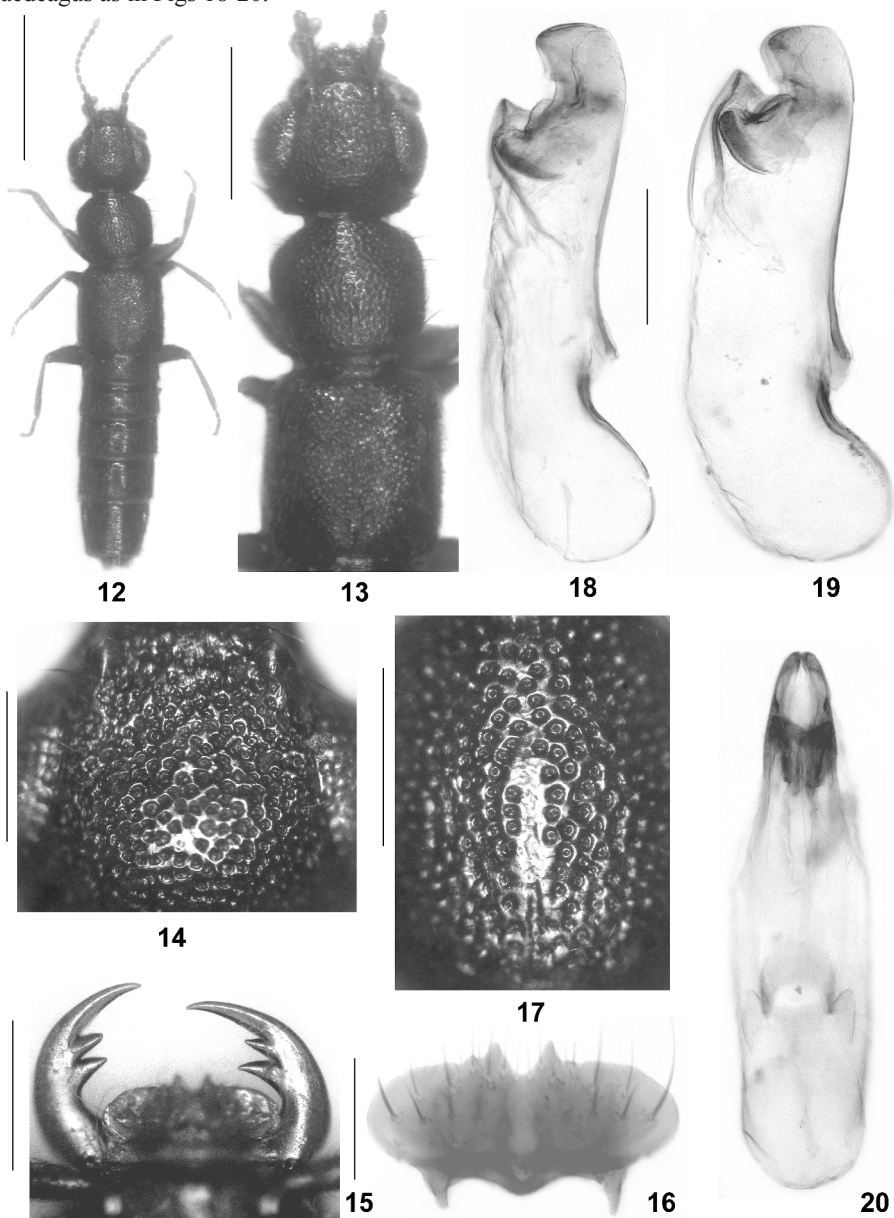
Head (Fig. 13) approximately 1.3 times as broad as long; punctation moderately coarse, very dense, but not confluent, interstices reduced to narrow ridges (Fig. 14). Eyes conspicuously large and bulging. Temples approximately 1/5 the length of eyes in dorsal view, with long black setae; posterior angles of head obtuse, but noticeable; posterior margin of head weakly concave in dorsal view. Gular sutures broadly separated, distance between these sutures subequal to the width of antennomere II. Mandibles bidentate (Fig. 15); labrum and labium as in Figs 16, 21-22.

Pronotum (Fig. 13) approximately 1.15 times as broad as long; punctation dense, similar to that of head or slightly coarser; midline posteriorly with very narrow, somewhat indistinct impunctate band and with short, shallow furrow (Fig. 17); lateral and anterior portions with long black setae; posterior margin weakly concave in the middle.

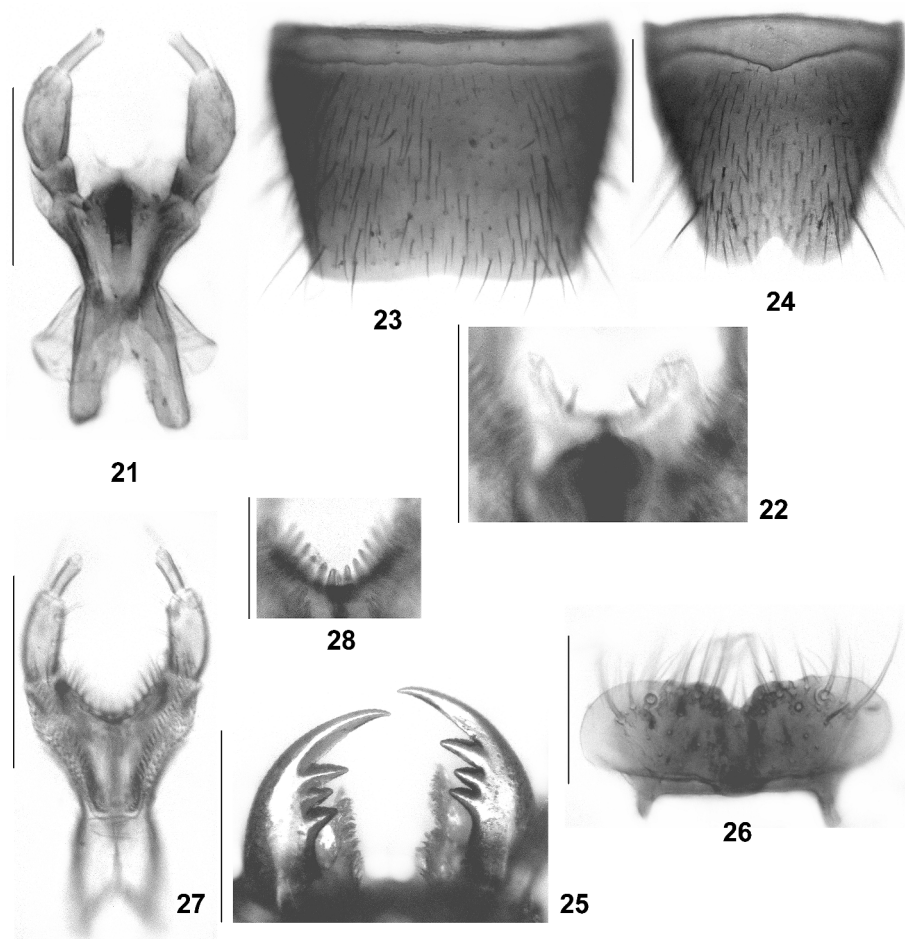
Elytra (Fig. 13) approximately 1.1 times as long as, and much broader than pronotum; punctation dense and shallow. Metatarsus distinctly shorter than metatibia; metatarsomere I distinctly longer than II; II approximately as long as broad; III and IV weakly transverse.

Abdomen slightly narrower than elytra; punctation very fine; microsculpture very shallow; posterior margin of tergite VII with palisade fringe.

♂: sternite VII with weakly concave posterior margin, otherwise unmodified; sternite VIII with moderately small posterior excision, pubescence unmodified (Fig. 23); aedeagus as in Figs 18-20.



Figs 12-20: *Sciiocharis bupthalma* SCHEERPELTZ: (12) habitus; (13) forebody; (14) median dorsal portion of head; (15) mandibles; (16) labrum; (17) median dorsal portion of pronotum; (18-19) aedeagus in lateral view; (20) aedeagus in ventral view. Scale bars: 12: 1.0 mm; 13: 0.5 mm; 14-15, 17: 0.2 mm; 16, 18-20: 0.1 mm.



Figs 21-28: *Sciiocharis bupthalma* SCHEERPELTZ (21-24) and *Eusclerus sordidus* SHARP (25-28): (21, 27) labium; (22, 28) ligula; (23) male sternite VII; (24) male sternite VIII; (25) mandibles; (26) labrum. Scale bars: 23-25: 0.2 mm; 21, 26-27: 0.1 mm; 22, 28: 0.05 mm.

Comparative notes: For a key to the species of *Sciiocharis* see SCHEERPELTZ (1970).

Distribution and natural history: *Sciiocharis bupthalma* has been recorded only from two localities in the north of Venezuela, one near Bejuma and one near Caracas. The specimens from Bejuma were collected by sifting litter and dead wood in a dense montane forest (BRACHAT pers. comm.).

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Zusammenfassung

Auf der Grundlage von Typenuntersuchungen werden die Medoninengattung *Eusclerus* SHARP 1886 und ihre Arten revidiert, redeskribiert und abgebildet. Zur Unterscheidung der Arten wird eine Bestimmungstabelle erstellt. Die derzeit bekannte Verbreitung der Gattung beschränkt sich auf Guatemala. Für *Sciocharis bupthalma* SCHEERPELTZ 1970 wird ein Lectotypus designiert. Diese bisher nur aus Venezuela nachgewiesene Art wird redeskribiert und abgebildet.

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