The Neotropical species of the genus *Somoleptus* SHARP, 1885 (Coleoptera: Staphylinidae: Staphylininae: Xantholinini)

With 52 figures and 2 keys

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Abstract

At present, 45 *Somoleptus* species are known from the Neotropical region. Among these, 28 species are newly described here, whereas 18 were described in the past. The new species are: *S. admirabilis* spec. nov., *S. andersoni* spec. nov., *S. ashei* spec. nov., *S. beniensis* spec. nov., *S. brevipennis* spec. nov., *S. breviusculus* spec. nov., *S. brooksi* spec. nov., *S. brunneus* spec. nov., *S. curtipennis* spec. nov., *S. curtulus* spec. nov., *S. elongatus* spec. nov., *S. gigas* spec. nov., *S. grandicus* spec. nov., *S. humicola* spec. nov., *S. longiceps* spec. nov., *S. lorentzi* spec. nov., *S. maximus* spec. nov., *S. melanarius* spec. nov., *S. mexicanus* spec. nov., *S. montanus* spec. nov., *S. oculus* spec. nov., *S. pecki* spec. nov., *S. perplexus* spec. nov., *S. recurvatus* spec. nov., *S. struyvei* spec. nov., *S. triangulus* spec. nov., *S. tschirnhausi* spec. nov. Four species are transferred from the genus *Lithocharodes*. These are *S. cavica* (Blackwelder, 1943) comb. nov., *S. striigula* (Blackwelder 1943) comb. nov., *S. longicollis* (LeConte, 1863) comb. nov., and *S. subtilis* (Erichson, 1839) comb. nov. *Somoleptus dichiformis* Bernhauer, 1910 could not be assigned to either *Lithocharodes* or *Somoleptus*. Thus, this species must be treated as species incertae sedis. Two species groups could be differentiated due to the structure of the parameres and the aedeagal cones; one mainly occurs in South America, the second in Central America.

Nomenclatural acts

*S. admirabilis* spec. nov. – urn:lsid:zoobank.org:act:4BE7793B-77E3-48E9-B8DF-1D1165939D3E
*S. andersoni* spec. nov. – urn:lsid:zoobank.org:act:EE71B4FE-AADE-460D-8956-5113E1CDD532
*S. ashei* spec. nov. – urn:lsid:zoobank.org:act:A670650-1A50-46E2-ADBF-8215932502E5
*S. beniensis* spec. nov. – urn:lsid:zoobank.org:act:F374FBE-13B5-41EA-9F5F-F742E9ECA
*S. brevipennis* spec. nov. – urn:lsid:zoobank.org:act:F374FBE-13B5-41EA-9F5F-F742E9ECA
*S. breviusculus* spec. nov. – urn:lsid:zoobank.org:act:59C96EB8-4776-4627-800D-75E982CF4F73
*S. brooksi* spec. nov. – urn:lsid:zoobank.org:act:1F8C2AEA-2437-4B42-AC59-9D601836AE1
*S. brunneus* spec. nov. – urn:lsid:zoobank.org:act:37751F5-C8B7-4FA4-918D-9E1BD724B8E2
*S. curtipennis* spec. nov. – urn:lsid:zoobank.org:act:CA403F62-42E7-410F-B533-661C0B64A73B
*S. curtulus* spec. nov. – urn:lsid:zoobank.org:act:4FC0C167-057B-41E4-BCB3-576DC2B47F32
*S. elongatus* spec. nov. – urn:lsid:zoobank.org:act:1E8C29B-33DF-43A8-B418-7FB573C1DC49
*S. gigas* spec. nov. – urn:lsid:zoobank.org:act:64813C41-0EEB-419F-85D2-21FE5DD733B8

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Somoleptus grandiconus spec. nov. – urn:lsid:zoobank.org:act:4207A3A4-F874-44F2-83CA-00973148C3EE
Somoleptus hunicola spec. nov. – urn:lsid:zoobank.org:act:FF992A61-25BA-4E8B-9079-E89182E39PF1
Somoleptus longiceps spec. nov. – urn:lsid:zoobank.org:act:852F9E24-DE95-473A-B6D1-9D55B5BCB58
Somoleptus lorentensis spec. nov. – urn:lsid:zoobank.org:act:598891A6-252E-4F7E-943C-B72D55B03813
Somoleptus maximus spec. nov. – urn:lsid:zoobank.org:act:7D7BD9DE-0207-4E2B-B3E5-8D84225777B2
Somoleptus melanarius spec. nov. – urn:lsid:zoobank.org:act:E5CB8799-55AC-4D5D-876C-29E45C953438
Somoleptus mexicanus spec. nov. – urn:lsid:zoobank.org:act:B833AEEF-5D44-4D1B-B22A-2D898B620EFD
Somoleptus montanus spec. nov. – urn:lsid:zoobank.org:act:1CB5C136-E50A-4001-A42E-DDFE34509886
Somoleptus oculatus spec. nov. – urn:lsid:zoobank.org:act:F86FF6E7-81A2-4A1B-82CA4EE9213
Somoleptus ovatus spec. nov. – urn:lsid:zoobank.org:act:901264F7-4008-4083-8E90-FC364B7CF3C1
Somoleptus pecki spec. nov. – urn:lsid:zoobank.org:act:422A4157-EA8D-4633-8AA1-F137A87B7758
Somoleptus peruanus spec. nov. – urn:lsid:zoobank.org:act:842A0E8D-ED87-4AC1-9207-C4D7B330C7B3
Somoleptus recurvatus spec. nov. – urn:lsid:zoobank.org:act:5273B368-80A0-4C31-AE6F-3F7C6A9E5576
Somoleptus struyvei spec. nov. – urn:lsid:zoobank.org:act:9F3627D1-41A2-41E2-C9B6971BFFDC
Somoleptus triangulus spec. nov. – urn:lsid:zoobank.org:act:4E69126B-1B3B-41D3-99F7-075F4527FC67
Somoleptus tschirnhausi spec. nov. – urn:lsid:zoobank.org:act:9F3627D1-41A2-41E2-C9B6971BFFDC

Zusammenfassung
Zurzeit sind 45 Somoleptus Arten aus der neotropischen Region bekannt. Von diesen werden 28 Arten hier neu beschrieben. Insgesamt 18 Arten waren schon bekannt. Die neu beschriebenen Arten sind: S. admirabilis spec. nov., S. andersoni spec. nov., S. ashei spec. nov., S. beniensis spec. nov., S. brevipennis spec. nov., S. brevisculus spec. nov., S. brooksi spec. nov., S. bruneus spec. nov., S. curtipes spec. nov., S. curtulus spec. nov., S. elongatus spec. nov., S. gigas spec. nov., S. grandiconus spec. nov., S. humicola spec. nov., S. longiceps spec. nov., S. lorentensis spec. nov., S. maximus spec. nov., S. melanarius spec. nov., S. mexicanus spec. nov., S. montanus spec. nov., S. oculatus spec. nov., S. ovatus spec. nov., S. pecki spec. nov., S. peruanus spec. nov., S. recurvatus spec. nov., S. struyvei spec. nov., S. triangulus spec. nov., S. tschirnhausi spec. nov. Vier Arten wurden aus der Gattung Lithocharodes nach Somoleptus überführt. Diese sind S. cavicola (Blackwelder, 1943) comb. nov., S. strigulata (Blackwelder 1943) comb. nov., S. longicollis (LeConte, 1863) comb. nov. und S. subtilis (Erichson, 1839) comb. nov. S. dichiformis Bernhauer, 1910 konnte weder der Gattung Lithocharodes noch der Gattung Somoleptus zugeordnet werden. Daher muss die Art zunächst als species incertae sedis aufgefasst werden. Aufgrund der Struktur der Parameren und des Aedeagusfortsatzes wurden zwei Artengruppen unterschieden; eine Gruppe ist hauptsächlich in Südamerika verbreitet, eine zweite in Zentralamerika.

Schlüsselwörter
Neotropis, Xantholinini, neue Arten, neue Kombinationen, Zoogeographie

Introduction
In his work on the Central American Staphylinidae, Sharp (1885) described the new genus Somoleptus based on several Central American and one South American species. He separated it from the similar genus Lithocharodes (Sharp, 1876). The assignment of species to one of the genera was mixed several times in the past. The characterisation and differentiation were described in the revision of the Neotropical Lithocharodes species (Irmler 2021). It mainly based on the structure of the aedeagus, which is more consistent than the external characters proposed by Navarrete-Heredia et al. (2002). After the revision of the Neotropical species of Lithocharodes (Irmler 2021), it seems necessary to work also on a revision of the Neotropical Somoleptus species for a clear assignment of the species to one of the genera. The results of this work are presented here. Overall, if the species described in the past and the new species described here are combined, a number of 45 species will be known from the Neotropical region. One species must be assigned as species incertae sedis: S. dichiformis Bernhauer, 1910. The type specimen of S. dichiformis Bernhauer, 1910 deposited in Field Museum of Natural History (Chicago, U.S.A.) is a male, but the structure of the aedeagus neither fits the aedeagal structures of Somoleptus nor that of Lithocharodes.
In addition, species groups are proposed, and zoogeographic and ecological remarks are given.

Material and methods

The material studied in this investigation is presently deposited in the following public museums and private collections:

BMNH The Natural History Museum, London, United Kingdom
FMNH Field Museum of Natural History, Chicago, U.S.A.
KNHM University of Kansas, Museum of Natural History, Lawrence, Kansas, U.S.A.
MCZ Museum of Comparative Zoology, Boston, U.S.A.
SDEI Senckenberg, Deutsches Entomologisches Institut, Müncheberg, Germany
ZMHU Zoologisches Museum der Humboldt-Universität, Berlin, Germany
TSC private collection of Tim Struyve, Mechelen, Belgium
UIC collection of author, Plön, Germany, is part of SDEI

The photographs were taken using a Makroskop M 420 (Wild, Herbrugg) in combination with a digital camera Leica EC3. Additionally, photographs were also made using a Stereomicroscope Olympus SZX7 with the digital camera LC 30. CombineZ5 (Hadley 2006) was used to optimise depth of focus. Length was measured in the middle of tagmata: head from clypeus to posterior edge, pronotum from anterior to posterior edge along midline, elytra from anterior edge at humeral angles to posterior edge; width at the widest part of tagmata (head width includes eyes). In the measurement of total length, the abdominal inter-segmental space is subtracted. The following ratios were used in the descriptions: Eye length versus length of posterior sides of head (PS : E); length of cones versus length of central lobe (C : A) (Fig. 1).

The statistical analysis to estimate the species richness in the Neotropical region was performed using the rarefaction analysis and the Chao-1 analysis with the program PAST (Hammer et al. 2012).

Acknowledgements

I thank the curators of the museums, institutions and private collectors for the steady support, help and relinquishment of several specimens for my collection: Crystal Maier (FMNH and MCZ), Max Barclay and Michael Geiser (BMNH), Zack Falin (KNHM), Johannes Frisch and J. Willers (ZMHU), Stephan Blank and Lutz Behne (SDEI), Tim Struyve (Mechelen, Belgium).

Characterisation and key of species groups

In the study on the Neotropical genus Lithocharodes Sharp, 1876, Irmler (2021) differentiated the genera Lithocharodes and Somoleptus mainly by the structure of the aedeagus. In contrast to Lithocharodes, Somoleptus species have a process at the apical orifice of the central lobe. The study of the Somoleptus material results in some more adeagal characters that allowed to separate species groups. These are structures of the parameres, which are either bilobed or unilobed, structures of the process at apical orifice, location of apical cones outside or inside the central lobe, and presence or absence of a sclerotised endophallus.

Two major groups can be differentiated: laevis-group and longicollis-group. The laevis-group has a simple, usually unilobed paramere; cones at the apical orifice variable, but do not have the characteristic cone-like structure of the longicollis-group. They can be extremely elongate, such as in S. laevis Bernhauer, 1908 or very short and inside the apical orifice, such as in S. brevisculus spec. nov. Only three species have bilobed parameres, such as in S. aegraeformis Sharp, 1885. But the outer lobe of the parameres of these species are slender and elongate in contrast to the broader and more circular outer lobe in the longicollis-group. These species may be considered as transitional between both groups. In total, at least 18 species are assigned to the laevis-group. The longicollis-group is more uniform in the structure of the parameres and the process at the apical orifice of the aedeagus. In this group, the parameres are bilobed with a slender or short and broad, often nearly circular outer lobe. The process has a typical cone-like structure with crowns of stacked spines (Fig. 1c). In addition, the endophallus is very uniform and mainly differs in the form and number of loops. In total, at least 24 species can be assigned to this group, which are in many cases extremely difficult to identify.

The species of the laevis-group can be subdivided into three subgroups with closer related species. These are the aenescens-subgroup, which is characterised by a typical laminated brush-like process at the apical orifice of the aedeagus (Fig. 1d). Four species can be assigned to this subgroup (S. aenescens, S. beniensis, S. pulcher, S. recurvatus). Another subgroup consists of the species S. curtulus, S. adimirabilis, S. aegraeformis, and S. nitidus (Sharp). In these four species the endophallus of the aedeagus is not sclerotised and the process varies but is similarly cone-like as in the longicollis-group. A third subgroup is formed by S. peruanus, S. struyvei, S. brevisculus, and S. montanus. In the four species, the process at the apical orifice is shifted to the inner side of the orifice (Fig. 1e).

In the longicollis-group species can be assigned to two subgroups: the longicollis-subgroup with male sternite VII triangularly prominent at posterior margin (S. ashei, S. columbicus, S. longiceps, S. longicollis, S. mexicanus, S. obscurus, S. obsoletus, S. ovatus,
S. parvulus, S. pecki, S. punctulatus, S. sparsus, S. triangulius) and the alticola-subgroup with male sternite VII straight at posterior margin (S. alticola, S. brevipennis, S. bruneus, S. gigas, S. humicola, S. maximus, S. melanarius, S. oculatus). The species in the subgroups certainly reflect species with closer evolutionary relation. The following key will allow the assignment of the species to groups and subgroups.

1. Parameres bilobed with slender elongate inner lobe and broad mostly semi-circular outer lobe; process at apical orifice of aedeagus cone-like with crones of spines (Fig. 1); male sternite VII at posterior margin with triangular process or straight ................................................................. longicollis-group ................................. 4
   - Parameres rarely bilobed; if bilobed inner lobe broader, not much slenderer than outer lobe; process at apical orifice of aedeagus varying; male sternite VII at posterior margin rarely with triangular process; mostly with central emargination or straight ..................................................................................................................... laevis-group ................................. 2
2. Without sclerotised endophallus ................................................................................................................................. admirabilis-subgroup
   - Endophallus sclerotised with several loops ..................................................................................................................... 3
3. Process at apical orifice of aedeagus brush-like (Fig. 1d) ................................................................................... aenespecsens-subgroup
   - Process at apical orifice of aedeagus short and translocated into the inner side of the orifice (Fig. 1e) ......................... ................................................................. struyvei-group ................................. 4
4. Posterior margin of male sternite VII triangularly prominent (Fig. 21c) ................................................................. longicollis-group ................................. 4
   - Posterior margin of male sternite VII straight (Fig. 22c) ................................................................................ alticola-subgroup

**Description of species**

*Somoleptus admirabilis* spec. nov.

urn:lsid:zoobank.org:act:4BE783B-7763-48E9-B8DF-1D116539B93E

Figs 13a–d, 46 G

**Type material**: male, holotype: Panama: Chiriqui, 27.7 km W Volcan, Hartmann’s Finca (8°45.5‘N, 82°48’W), 1800 m elev., oak forest litter, 16.6.1995, leg. R. Anderson,

1 female, San José, 117 km Pan American Highway, 19 km N San Isidro (83°42.0‘W, 9°28.0‘N), 1800 m elev., cloud forest litter, 15.2.1998, leg. R. Anderson #CR2A98 001 (KNHM); 1 male, Puntarenas, San Vito, Estac. Biol. Las Alturas, 2 km NE (82°50.6‘W, 8°58.26‘N), 2170 m elev., 21.6.1998, leg. R. Anderson #CR1A98 016 (KNHM); 2 males, San José, 117 km Pan American Highway, 19 km N San Isidro (83°42.2‘W, 9°28‘N), 1800 m elev., cloud forest litter, 15.2.1998, leg. R. Anderson #CR1A98 001 (KNHM); Panama: 6 males, 6 females with same data as holotype (10 KNHM, 2 UIC).

**Diagnosis**: The species resembles *S. curtulus* in size, short elytra and black colouration. Other species with short elytra and absent humeral angles are either smaller between 4 and 6 mm, e.g. *S. alticola*, *S. bruneus*, and *S. curtipennis* or have nearly quadrate elytra such as *S. strigulata*. The endophallus of *S. admirabilis* is transparent as in *S. curtulus* and the male sternite VII has an incision at posterior margin. Even the shape of parameres is similar. However, the aedeagus of *S. admirabilis* is distinctly larger, a central apical tooth present and the cones broader. Thus, without preparation of the aedeagus, a separation of the species from *S. curtulus* is difficult.

**Description**: Length: 6.0 mm. Colouration: Black; legs and antennae brown.

Head: 0.97 mm long, 0.75 mm wide; eyes short, not prominent, postocular sides slightly divergent posterior; PS : E ratio 6.5; posterior angles combined with posterior margin semi-circular; setiferous punctation dense and moderately deep; without impunctate midline; on average, interstices between punctures as wide as diameter of punctures; partly denser; surface with weak isodiametric microsculpture; shiny. Antennae with first antennomere half-length of head; second and third antennomere conical, twice as long as wide; following antennomeres wider than long and increasing in width; fourth antennomere twice as wide as long; tenth antennomere 2.5 times as wide as long; all antennomeres pubescent. Pronotum: 1.18 mm long, 0.71 mm wide; widest slightly behind anterior third; anteriad narrowed to neck in convex curve; posteriad nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctation as dense as on head but slightly finer; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.70 mm long; 0.78 mm wide; without humeral angles; posterior angles rectangular; posterior margin triangularly retreated to suture; setiferous punctation deep and dense; on average, interstices less than half as wide as diameter of punctures; at base partly coriaceous; surface partly with irregular ground-sculpture; matt. Abdomen with dense setiferous punctuation; weaker than on elytra; surface with transverse reticulate microsculpture; posterior margin of male sternite VII with triangular incision; posterior margin of...
male tergite VII straight. Aedeagus oval; between apical cones with short triangular central tooth; cones broad; C : A ratio 0.27; endophallus transparent, not sclerotised; parameres twice as long as apical cones; broad at base; narrowed to acute apex in apical third; with numerous sensillae.

**Etyymology:** The species name is derived from the Latin *admirabilis* meaning astonishing or strange and refers to the aedeagus with the non-sclerotised endophallus.

*Somoleptus aenescens* Sharp, 1885

Figs 6a–d, 46 B

**Type material examined:** male, here designated as lectotype: Guatemala, Vera Paz, San Geronimo, leg. Champion (BMNH). 2 female syntypes, 2 male syntypes with same data as lectotype (BMNH); within the loan of the BMNH four specimens were fixed on one plate and one female on a separate plate but from the same location. The 4 specimens of the plate were separated, dissected and one male was labelled as lectotype.

**Additional material examined:** Mexico: 5 males, 5 females, Veracruz, 7.4 mi S Huatusco, 1400 m elev., wooded pasture, litter in rock cracks along stream, 24.4.1977, leg. J.S. Ashe (FMNH); 1 female, Colon, Parque Nac. Soberania, Pipeline Rd. (79°45’W, 9°07’S), beating veg., 20.5.1995, leg. C. Chaboo (KNHM); Ecuador: 1 male, 1 female, Manabi Agua Blanca, 20 km N Puerto Lopez, Machanilla N.P. (80°27.47’W, 1°31.35’S), 11.3.2006, leg. U. Irmler (UIC).

**Diagnosis:** The species is characterised by its dark colour combined with the polished glossy surface. In particular, the cones at the orifice of the aedeagus and the shape of the parameres are specific and in common with the other species of the aenescens-subgroup. Within this subgroup, the triangular parameres and the semi-circular emargination of male sternite VII characterises the species among the other species of the subgroup.

**Description:** Length: 5.6 mm. Colouration: Blackish; abdomen lighter brown; pronotum slightly lighter, but still blackish; legs and antennae yellowish-brown.

Head: 0.91 mm long, 0.71 mm wide; eyes moderately short; PS : E ratio 3.3; postocular sides nearly parallel; posterior angles widely rounded; Posterior margin convex; setiferous punctuation sparse and moderately deep; on average, interstices between punctures as wide as diameter of punctures; surface without microsculpture; polished. Antennae with first antennomere as long as half head-length; second and third antennomere conical; twice as long as wide; following antennomeres wider than long and increasing in width; fourth antennomere slightly wider than long; tenth antennomere twice as wide as long; all antennomeres pubescent. Pronotum: 1.02 mm long, 0.65 mm wide; widest shortly behind anterior third; anteriorly sides narrowed in convex curve; in posterior half nearly parallel; posterior angles sub-rectangular; posterior margin slightly curved; setiferous punctuation sparse and moderately deep; wide midline impunctate; near anterior margin, impunctate midline convergent; surface without microsculpture; polished. Elytra: 0.96 mm long, 0.90 mm wide; humeral and posterior angles sub-rectangular; posterior margin convexly curved; sides slightly divergent; setiferous punctuation distinctly denser and deeper than on head and pronotum; on average, interstices between punctures as wide as diameter of punctures; surface with weak isodiametric microsculpture; less shiny than pronotum. Abdomen much denser punctate than fore-body; male sternite VII with semi-circular emargination at posterior margin; male tergite VII straight. Metatarsus with three subapical ctenidia. Aedeagus oval; endophallus curled; covered by numerous minute teeth; cones at orifice broad and angled; C : A ratio 0.3; contiguous to endophallus; parameres short; triangular; at outer edge with smooth convex curve; at inner edge with two concave emarginations; with numerous sensillae in anterior half.

*Somoleptus agraeformis* Sharp, 1885

Figs 14a–d, 46 B

**Type material examined:** female, syntype: Mexico, leg. Flohr (BMNH).

**Additional material examined:** Mexico: 5 males, 5 females, Veracruz, 7.4 mi S Huatusco, 1400 m elev., wooded pasture, litter in rock cracks along stream, 24.4.1977, leg. J.S. Ashe (FMNH, 2 UIC); 1 female, 7 km E Huatusco, Hwy. 125, 1230 m elev., under stones by stream, 16.7.1990, leg. J.S. Ashe, K.J. Ahn, R. Leschen, #184 (KNHM); 4 females, Veracruz, 3.5 km S Jalapa, sifted from leaf litter along stream, 1400 m elev., 22.5.1991, leg. J.S. Ashe (KNHM); 2 males, 1 female, Oaxaca, 14.2 mi S Ejutla, Hwy. 210, 1720 m elev., oak-pine forest, leaf litter, 18.6.1979, leg. J.S. Ashe (FMNH); 2 males, 2 females, Veracruz, 3.5 km S Jalapa, 1400 m elev., sifted from beat litter along stream, 22.5.1991, leg. J. Ashe, #22 (KNHM); 2 females, 4.0 km
S. Jalapa, 1350 m elev., leaf litter along stream 30.5.1991, leg. J.S. Ashe #40 (KNHM); 1 female, 2.3 km S Jalapa, 1320 m elev., leaf litter near river, 13.7.1992, leg. J. Ashe #67 (KNHM); San Luis Potosi, 29 km S Tamazunchale, Hwy. 85, 820 m elev., 10.7.1990, leg. J.S. Ashe (KNHM); Panama: 1 female, Chiriqui Prov., La Fortuna “Hydro Trail” (82°14′W, 8°42′N), 1150 m elev., flight interception trap, 23.5.-9.6.1995, leg. J. Ashe, R. Brooks #156 (KNHM).

**Diagnosis:** The species is characterised by the narrow neck in combination with the strongly narrowed head and pronotum, which certainly resembles the overall shape of the carabid beetle *Agra*. Moreover, the short aedeagus with the long cones is species specific.

**Description:** Length: 4.6 mm. Colouration: Blackish, pronotum and abdomen brown; legs and antennae yellowish brown.

**Head:** 0.76 mm long, 0.54 mm wide; eyes moderately large; P5 : E ratio 2.5; postocular sides widely curved to neck; without posterior angles; setiferous punctuation moderately dense and deep; on average, interstices between punctures 1.5 times as wide as diameter of punctures; punctuation on vertex slightly sparser than laterally; anteriorly on small central area impunctate; surface without microsculpture; polished.

Antennae as first antennomere half as long as head; second and third antennomere elongate and conical; combined half as long as first antennomere; following antennomeres wider than long and increasing in width; twice as wide as long. Pronotum: 0.90 mm long, 0.51 mm wide; widest closely in front of middle; sides anteriorly continue convergent; posteriory nearly parallel; posterior angles obtusely rounded; posterior margin slightly convex; setiferous punctuation moderately deep and dense; on average, interstices twice as wide as diameter of punctures; wide midline impunctate; impunctate midline anteriorly convergent; surface without microsculpture; polished; Elytra: 0.85 mm long, 0.68 mm wide; humeral and posterior angles sub-rectangular; sides nearly parallel; very slightly curved; posterior margin slightly retracted to suture; setiferous punctuation denser and deeper than on head and pronotum; on average, interstices between punctures as wide as diameter of punctures; surface with weak isodiametric microsculpture; less glossy than head and pronotum; Abdomen with dense and moderately deep setiferous punctuation; setae long and dark; surface with weak microsculpture; as shiny as elytra; male sternite VII with short central triangular emargination; male tergite VII with straight posterior margin. Metatibia with one subapical ctenidium. Aedeagus small; nearly circular; without sclerotised endophallus; C : ratio 0.8; parameres with inner lobe elongate; longer than cones; outer lobe as large plate; as long as cones.

**Type material examined:** Female, holotype: Guatemala: Totonicapam, 8000–10,500 ft elev., leg. Champion (BMNH).

**Additional material examined:** Mexico: 2 males, Michoacan, Cerro de Garnica, Puerto Garnica, 9400 ft elev., oak-conifer forest, leaf litter, forest floor, Berlese, 17.-18.9.1973, leg. A. Newton (7 FMNH, 2 UIC); 3 males, same region but 4.8 km W Mil Cumbres, 2820 m elev., pine-oak forest, 27.7.1988, leg. R.S. Anderson (KNHM); 1 male, 6 females, Chiapas, Cerro Huittepec, ca. 5 km W San Cristobal, 2650 m, 2750 m elev., wet oak forest leaf litter, 17.9.1991, leg. R. Anderson (FMNH); 1 female, Mpio: San Cristobal, de las Casas, Reserva Huittepec (92°40.7′W, 16°45.8′N), 2200 m elev., oak forest, 13.11.2001, leg. R. Anderson #MEX1A01 201 (KNHM); 1 female, same data except 2450 m elev., sifted leaf litter cloud forest, 21.6.2008 (KNHM); 1 female, same region but (92°41.31′W, 16°44.68′N), 2600 m elev., cloud forest litter, Winkler, 11.7.2007, leg. J. Longino #JTL6036-s (KNHM); 1 female, 8.9 km E Rayon, 1500 m elev., cloud forest litter, 19.9.1991, leg. R. Anderson #91-109 (KNHM); 3 females, Cerro Tzontehuiz (Pico), ca. 10 m NE San Cristobal, 2910 m elev., cloud forest leaf litter, 16.9.1991, leg. R. Anderson (FMNH); 1 female, Mpio: Angel Albino Corzo Reserva El Triunfo (92°48.7′W, 15°40.1′N), 2400 m elev., cloud forest litter, 16-21.11.2001, leg. R. Anderson #MEX1A01 204 (KNHM); 1 male, Oaxaca, 10.4 km S Totontepec, 2840 m elev., cloud leaf litter & moss, 17.6.1979, leg. J.S. Ashe (FMNH); 1 female, Veracruz, 7 km E Huatusco, cloud forest litter, Berlese, 22.6.1983, leg. R. Anderson (FMNH); Veracruz, 3.2 km SW Las Vigas, Hwy 140, pine treefall litter, 2830 m elev., 3 males, 11.7.1992, leg. J.S. Ashe #40 (KNHM); 4 females, Chiapas, 8.9 km E Payon, 1500 m elev., cloud forest litter, 19.9.1991, leg. R. Anderson #91-109 (KNHM); 2 females, Yerbabuena Reserve, 2.1 km NW Pueblo Nuevo Solistahuacan, 2070 m elev., Liquidamber forest litter, 23.9.1992, leg. R. Anderson #92-114 (KNHM); 1 female same region but (92°53.52′W, 17°1.00′N), 1950 m elev., oak/pine liquidambar forest, 22.7.2003, leg. R. Anderson #MEX1A03 116 (KNHM); 5 females, Mpio., Huitxitan, Bazom (92°29.18′W, 16°44.19′N), mixed magnolia oak forest litter, 2450 m elev., 9.6.2003, leg. R. Anderson #MEX1A03 106 (KNHM); 1 female, Mpio. Tapalapa, Cerro El Calvaric nr. Tapalapa (93°07.21′W, 17°11.11′N), 2200 m elev., wet cloud forest, 23.7.2003, leg. R. Anderson #MEX1A01 118 (KNHM); Guatemala: 3 females, Totonicapan, Paqque Ceologia Chajil Siwan (~91.3296, 14.93638), 2790 m elev., sifted, oak-pine litter, 6.6.2015, leg. R. Anderson, GUAT1A15 120 (KNHM); 4 males, same region, but road below antennae, 3118 m elev., sifted, Cupressus litter, 7.6.2005, leg. R. Anderson, GUAT1A15 123 (2 KNHM, 2 UIC).
1 male, 1 female, El Progresso, Cerro Pinaión (-89.95319, 15.08350), sifted, leaf litter, cloud forest, 2500 m, 2560 m elev., 30.4., 2.5.2009 LLAMA09 Wm-B-01-2-02 (KNHM); 6 males, 10 females, Huehuetenango, Puerta del Cielo (-91.60338, 15.08350), sifted, fir-moss litter, oak forest litter, 3400 m, 3358 m, 2974, elev., 13., (-91.60338, 15.55307), sifted, fir-shrub litter, oak forest 122 (KNHM); 2 males, Quiche, Nebaj, old road to 2545 m sifted, mixed litter, 7.6 2015, leg. R. Anderson GUAT1A15 2 UIC); 3 females, Solola, Xeabaj I (-91.40841, 14.82364), 14.6.2015, -leg. R. Anderson GUAT1A15 144 (14 KNHM, 6 males, 10 females, Huehuetenango, Puerta del Cielo elev., 30.4., 2.5.2009 LLAMA09 Wm-B-01-2-02 (KNHM); 13 males, (-92.08626, 15.14936), sifted, alder forest litter, 9.6.2015, 1 male, San Marcos, Vega del Volcan, road to 2950 m elev. (-90.8626, 15.14936), sifted, alder forest litter, 9.6.2015, leg. R. Anderson GUAT1A15 131 (KNHM); 13 males, 25 females, Quetzaltenango, 8 km SE Zunil (14°46.1’N, 91°26.9’W), 2450 m, 2560 m, 2700 m elev., 16.6.1993, leg. Anderson & Ashe, #93-1B (33 KNHM, 5 UIC); 1 male, same region and collectors, but 1520 m elev. (14°41.7N, 91°25.5’W), oak leaf litter (KNHM); 1 male, 1 female, Quetzaltenango, Volcan Siete Orejas, summit rd. (-91.5816, 14.7889), 2911 m elev., sifted oak forest litter, 5.6.2015, leg. R. Anderson #GUAT1A15 113 (KNHM); El Progreso, Cerro Pinalón (15.08304, 89.92229), 2845 m elev., sifted leaf litter, oak forest, 1.5.2009, leg. KNHM, #LLAMA09 Wm-B-01-1-03 (KNHM).

Diagnosis: Somoleptus alticola can be distinguished from the other species of the longicollis-subgroup by the short, divergent elytra and the absence of humeral angles. This is certainly an adaptation to the habitat in the high mountains. Additionally, the broad sclerotised endophallus in combination with the extremely short cones are specific within the subgroup.

Description: Length: 4.6 mm. Colouration: Totally black; legs and antennae blackish brown.

Head: 0.75 mm long, 0.56 mm wide; eyes very short; PS : E ratio 4.0; postocular sides nearly parallel; posterior angles in even curve with posterior margin; setiferous punctation sparse and moderately deep; on average, interstices between punctures more than twice as wide as diameter of punctures; indistinct midline impunctate; surface without microsculpture, polished; Antennae with first antennomere half head-length; second and third antennomere elongate; second antennomere one fourth longer than third; following antennomeres wider than long and increasing in width; fourth antennomere slightly wider than long; tenth nearly twice as wide as long. Pronotum: 0.88 mm long, 0.59 mm wide; widest close to middle; anteriorly convergent in continuous curve; posteriad slightly narrowed to obtuse posterior angles; posterior margin slightly convex; setiferous punctation moderately dense and deep; with wide impunctate midline; surface without microsculpture; polished; Elytra: 0.62 mm long, 0.66 mm wide; sides divergent to posterior angles; humeral angles absent; posterior angles sub-rectangular; posterior margin with deep and broad triangular incision at suture; setiferous punctation much denser and deeper than on head and pronotum; on average, interstices between punctures as wide as diameter of punctures; surface with weak isodiametric microsculpture; less shiny than head and pronotum. Abdomen with setiferous punctation as deep and dense as on elytra; male sternite and tergite VII with straight posterior margin. Metabia with one subapical conidium. Aedeagus oval; cones short; C : A ratio 0.10; endophallus with broad sclerotised part in posterior half and smaller circle part in anterior half; parameres with elongate inner and outer lobe; outer lobe only half as long as inner lobe; inner lobe with four pairs of setae at inner edge.

Somoleptus andersoni spec. nov. urn:lsid:zoobank.org:act:EE71B4FE-AADE-460D-9856-5113E1CDD532 Figs 10a, b, 49 E

Type material: male, holotype: Mexico: Mpio: Chalchihuitan, Cerro de Chalchihuitan (92°37.13’W, 16°59.20N), 2050 m elev., cloud forest litter, 24.7.2003, leg. R. Anderson #MEX1A03 120 (KNHM). Paratypes: 1 male, 1 female with same data as holotype (KNHM); 1 male, Chiapas, Yerbabuena Reserve, 2.1 km NW Pueblo Nuevo Solistahuacan, 2070 m elev., Liquidamber forest litter, 23.9.1992, leg. R. Anderson #92-114 (UIIC); Guatemala: 1 female, El Progreso, Cerro Pinalón, Finca las Nubes (-89.9425, 15.0838), 2500 m elev., sifted oak/cloud forest litter, 21.9.2008, leg. R. Anderson #LLAMA08 RSA142 (KNHM).

Diagnosis: The species is characterised by the extremely short eyes with postocular sides 7–10 times longer than eyes. Among the other species with short elytra and eyes, S. andersoni is also conspicuous by its large size. The similarly large S. admirabilis and S. curtulus can be separated by the absence of a sclerotised endophallus.

Description: Length 6.1 mm. Colouration: Black, legs and antennae dark brown.

Head: 0.97 mm long, 0.74 mm wide; eyes extremely short; PS : E ratio 7.2; sides slightly curved; posterior angles combined with posterior margin semi-circular; interantennal furrows weak; setiferous punctation moderately deep and dense; on average, interstices between punctures 1–1.5 times as wide as diameter of punctures; surface without microsculpture; shiny. Antennae with first antennomere half-length of head; antennomeres 2 and 3 approximately twice as long as wide; combined half-length of first antennomere; antennomeres 4–10 wider than long and increasing in width; each twice as wide as long; antennomeres 4 to 11 pubescent. Pronotum: 0.11 mm long, 0.70 mm wide; widest at anterior third; anteriorly narrowed in smooth convex curve; in central third slightly narrowed; in posterior third nearly parallel; posterior angles obtuse; posterior margin slightly convex;
setiferous punctation as deep and dense as on head except adjacent to impunctate midline with denser punctation; irregular line approximately with 20 punctures; surface without microsculpture; shiny. Elytra: 0.78 mm long, 0.84 mm wide; without humeral angles; sides divergent posteriad; posterior angles rectangular; posterior margin deeply retreating to suture; setiferous punctation less than on pronotum but on average slightly denser; surface with weak irregular ground sculpture; less shiny than head and pronotum. Abdomen with setiferous punctation as dense as on elytra but weaker; surface with transverse microsculpture; matt; posterior margin of male sternite VII straight; posterior margin of male tergite VII slightly convex. Aedeagus oval; egg-shaped; at base wider than at apex; anterior angles obtuse; cones extremely short; C : A ratio 0.1; sclerotised endophallus with several torsions; covered by short teeth except a more transparent part apically; parameres slender; 5 times as long as cones; apically with hook-like prominence; apex acute; at lower edge of prominence several spines.

Etymology: The species name honours the collector of the species, R. Anderson, who collected extensively in the Neotropical region.

**Somoleptus ashei** spec. nov.

urn:lsid:zoobank.org:pub:A6709550-1A50-46E2-ADBF-8215932502E5

Figs 43a, b; 46 E

**Type material**: male, Holotype: Mexico: Veracruz, 5.5 mi S Huatusco, and 4.8 mi W on microodus road, cloud forest, 5900 ft elev., sifting litter at base of tree, 25.4.1977, leg. J.S. Ashe (FMNH). Paratype: Mexico: Veracruz, 16.4 km S Orizaba on rd. to Tlaquilpa, 1630 m elev., litter in sinkhole, 26.7.1992, leg. R. Anderson #92-031 (6 KNHM, 2 UIC); 2 females, same region and collector but 32 km SW Valle Nacional, km 85, 1900 m elev., trans./cloud forest leaf litter, Berlese, 26.7.1992 #92-030 (KNHM); 1 female, Chiapas, Yerbabuena Reserve 2.1 km SW Pueblo Nuevo Solistahuacan, 2100 m elev., cloud forest litter, 23.9.1992, leg. R. Anderson #91-114 (KNHM); Honduras: 2 females, Yoro Dept., PN. Pico Pijol (87°37.6’W, 15°09.4’N), 1400 m elev., upper montane forest litter, 11.5.2002, leg. R. Anderson #RSA2A2002-016 (KNHM); 1 male, 2 females, Morazan Dept., Res. Biol. El Chile, nr. Guaimaca (85°52’W, 14°21’N), 1600 m elev., upper montane forest litter, 8.5.2002, leg. R. Anderson #RSA2002-011 (2 KNHM, 1 UIC); Guatemala: 1 male, Quiche, Reserva de Recuerdas (-90.75887, 5.45220), 1398 m elev., sifted evergreen forest, 16.6.2015, leg. R. Anderson #GUATIA15 152 (KNHM); 1 female, Huehuetenango, Nentón, Gracias de Dios, El Quetzal (-91.66444, 16.06948), 1569 m elev., leaf litter, 12.5.2010, leg. F. Camposeco & J. Monzon (KNHM); 1 female, Petén, 13 km NW Manchaquilá (-89.54982, 16.44569), 400 m elev., sifted leaf litter tropical moist for., 27.5.2009, leg. (KNHM); 1 female, Progresso, 20 km N Estanese de la Virgen, 1800-1900 m elev., cloud forest litter, 8.6.1991, leg. R. Anderson #91-55 (KNHM).

**Diagnosis**: According to the colouration, punctuation and glossy surface, *S. ashei* resembles *S. aenescens*. It is distinctly smaller than *S. aenescens* and the parameres are extremely slender compared to the triangular parameres of *S. aenescens*. The aedeagus of *S. ashei* resembles the aedeagus of *S. alticola*. In contrast to the short elytra and absence of hind wings in *S. alticola*, elytra are long and with hind wings in *S. ashei*.

**Description**: Length: 5.1 mm. Colouration: Totally black; legs and antennae dark brown.

Head: 0.82 mm long, 0.59 mm wide; eyes moderately large, PS : E ratio 3.1; postocular sides slightly curved; postocular margin combined with posterior angles convex with short straight centre; setiferous punctation moderately sparse and deep; on average, interstices between punctures 1.5 times as wide as diameter of punctures; anteriorly with narrow impunctate midline; surface without microsculpture; polished. Antennae with first antennomere slightly longer than half-length of head; second and third antennomeres conical; combined half as long as first; following antennomeres wider than long and increasing in width; twice as wide as long; antennomeres 4–11 pubescent; Pronotum: 0.91 mm long, 0.58 mm wide; widest at anterior third; anteriorly narrowed in smooth curve; sides in posterior half nearly parallel; posterior angles obtuse; posterior margin convex; setiferous punctation still sparser than on head; on average interstices more than twice as wide as diameter of punctures; laterally much sparser than adjacent to midline; wide midline impunctate; adjacent to midline irregular band of dense punctures; surface without microsculpture; polished. Elytra: 0.81 mm long, 0.72 mm wide; humeral and posterior angles sub-rectangular; posterior margin slightly retreated to suture; setiferous punctation slightly denser than on head and pronotum; on average, interstices between punctures 1.5 times as wide as diameter of punctures; surface without microsculpture; shiny. Abdomen with moderately dense setiferous punctuation; segments at base with transverse microsculpture; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergite VII straight. Metatibia with one subapical ctenidium. Aedeagus oval; C : A ratio 0.18; sclerotised endophallus covered by minute teeth; broad and straight in posterior half; at middle with one loop; inner lobe of parameres slender and nearly as long as aedeagus; outer lobe broad plate; half as long as inner lobe; at inner edge of inner lobe with row of setae.

Etymology: The species name honours J.S. Ashe, who collected it on one of his numerous collecting expeditions to Latin America.
Somoleptus beniensis spec. nov.

Type material: male, Holotype: Bolivia: Dept. Beni, Prov. Vaca Diaz, 2.5 km NW of Tumichucu, forest, flight intercept trap, 11.8.1990, leg. P. Parillo & P. Betella (FMNH).
Paratypes: Suriname: 1 male, Marowijne, Perica, 70 km E Paramaribo, on East-West Road (5°43.31’W, 5°40.28’N), 5 m elev., flight intercept trap, 31.5-5.6.1999, leg. Z.H. Falin (KNHM); Peru: 2 males, Dept Loreto, 1.5 km N Teniente Lopez (76°06.92’W, 2°35.66’S), 210-240 m elev., flight intercept trap, 22.7.1993, leg. R. Leschen (1 KNHM, 1 UIC); Paraguay: 1 male, Guairá, Melgarejo, Tacuara Creek, flood detritus, 20.10.1004, leg. U. Drechsel (KNHM).

Diagnosis: In the uniformly black colouration and the elytral length, S. beniensis resembles S. ashei, but the punctuation on the head is distinctly sparser than in this species and total length is distinctly smaller. Moreover, in males the shape of sternite VII is different, the endophallus is broadly sclerotised and the parameres are broad and s-shaped and not as slender as in S. ashei.

Description: Length: 4.3 mm, Colouration: Totally black; legs and antennae light brown.
Head: 0.71 mm long, 0.57 mm wide; eyes large; PS : E ratio 2.6; postocular sides divergent; posterior angles combined with posterior margin convex with short straight part in front of neck; with weak interantennal furrows; setiferous punctuation sparse and moderately deep; on average interstices between punctures twice as wide as diameter of punctures; anteriorly obtusely angled; C : A ratio 0.25; sclerotised endophallus broad; with few large teeth and numerous minute teeth; parameres broad; s-shaped; without setae.

Etymology: The species name is derived from the Departamento Beni in Peru, where the holotype was collected.

Somoleptus brevipennis spec. nov.

Type material: male, holotype: Honduras, Lempira Dept., P.N. Celaque, nr. Gracias, above Camp. Don Tomas (88°39.7’W, 14°32.7’N), 2250 m elev., mixed oak forest litter, 12.-13.5.2002, leg. R. Anderson #RSA2002-021 (KNHM).
Paratypes: Paraguay: 3 females, Guerrero, 10.3 km SW Filo de Caballo, 2700 m elev., oak/pine/forest leaf/log litter, 15.7.1992, leg. R. Anderson #92-008 (KNHM); Honduras: 3 males, 4 females with same data as holotype (6 KNHM, 1 UIC); Guatemala: Zacapa, Alejandria, nr. Finca Lucas (-89.6247, 15.1349), 2122 m elev., sifted oak forest litter, 19.6.2015, leg. R. Anderson #GUATIA15 155 (KNHM).

Diagnosis: S. brevipennis belongs to the alticola-subgroup with short elytra and eyes. It is smaller than the similar S. alticola and S. breviusculus and can be identified only by dissection of the aedeagus. The cones at apical orifice of the aedeagus are longer than in S. alticola and S. breviusculus. In contrast to S. breviusculus, the parameres are bilobed as in S. alticola but the endophallus is slenderer than in S. alticola.

Description: Length: 3.9 mm. Colouration: Dark brown; legs and antennae lighter brown.
Head: 0.64 mm long, 0.48 mm wide; eyes short, PS : E ratio 5.4; sides nearly parallel; posterior angles combined with posterior margin semi-circular; interantennal furrows weak; setiferous punctuation deep and moderately dense; on average, interstices as wide as diameter of punctures; close to impunctate midline partly denser; surface without microsculpture; shiny. Antennae with first antennomere distinctly longer than half-length of head; second and third antennomeres longer than wide; combined as long as half-length of first antennomere; following antennomeres wider than long and increasing in width; twice as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.79 mm long, 0.48 mm wide; widest at anterior third; anteriorly narrowed in smooth curve; sides in posterior half nearly parallel; posterior angles combined with posterior margin convex; setiferous punctuation sparse and moderately deep; on average interstices between punctures twice as wide as diameter of punctures; anteriorly obtusely angled; C : A ratio 0.25; sclerotised endophallus broad; with few large teeth and numerous minute teeth; parameres broad; s-shaped; without setae.

Etymology: The species name is derived from the Department Beni in Peru, where the holotype was collected.
posterior margin of male sternite VII semi-circular; posterior margin of male tergite VII straight. Aedeagus oval with anterior angles sub-rectangular; C : A ratio 0.19; one fifth as long as total length of aedeagus; sclerotized endophallus with several torsions; partly transparent; partly covered by moderately long spines and lobes; parameres short; slightly longer than cones; divided into two lobes; outer lobe plate-like; inner lobe slender with five setae.

**Etymology:** The species name is a combination of the Latin words *brevis* (meaning short) and *pennis* (meaning elytra) and refers to the short elytra.

*Somoleptus breviusculus* spec. nov.

urn:lsid:zoobank.org:act:59C66EB8-4776-4627-800D-75EB82384F73

Figs 20a, d; 49 F

**Type material:** male, holotype: Mexico: Chiapas, Reserva Huitepec (92°41.312’W , 16°44.686’N), 2600 m elev., cloud forest leaf litter, Winkler extraction, 11.7.2007, leg. J. Longino #LLAMA07 JTL6036-s (KNHM); Paratypes: Mexico: 2 females, 1 male, same data as holotype (2 KNHM, 1 UIC); 1 male, Cerro Huitepec, ca. 5 km W San Cristóbal, 2700 m elev., oak forest litter, 14.9.1992, leg. R.S. Anderson #92-100 (KNHM); 1 female, Chiapas, San Cristóbal, 7 km WSW (92°42’W, 16°43’N), 2550 m elev., pine/oak forest leaf litter, Winkler extraction, 9.7.2007, leg. M.G. Branstetter #LLAMA07 MGB630 (KNHM); 1 female, Veracruz, 3.2 km SW Las Vegas, Hwy. 140, 2380 m elev., pine tree fall litter, 11.7.1992, leg. J.S. Ashe #40 (KNHM); 1 male, 1 female, Guerrero, 15 km W Filo de Caballo, 2500 m elev., oak forest (wet) litter, Berlese, 17.7.1992, leg. R.S. Anderson (KNHM).

**Diagnosis:** Among the species with short elytra and eyes, *S. breviusculus* resembles *S. brevipennis* and *S. alticola* in size. It is slightly larger than *S. brevipennis* and shorter than *S. alticola*. It is separated from these species by the reddish colouration of the head and pronotum and the extremely short cones at the apical orifice of the aedeagus.

**Description:** Length: 4.3 mm. Colouration: Blackish; head and pronotum light reddish; legs and antennae yellowish. Head: 0.74 mm long, 0.54 mm wide; eyes short; not prominent; PS : E ratio 4.3; slightly divergent to posterior sub-rectangular angles; posterior margin nearly straight; without interantennal furrows; impunctate midline narrow; setiferous punctuation moderately deep and dense; on average, interstices between punctures 1–1.5 times as wide as diameter of punctures; surface without microsculpture; shiny. Antennae with first antennomere slightly longer than half-length of head; antennomeres 2 and 3 longer than wide; conical; combined slightly shorter than first antennomere; antennomeres 4 to 10 wider than long; antennomere 4 approximately 1.5 times as wide as long; antennomere 10 about twice as wide as long; all antennomeres pubescent. Pronotum: 0.86 mm long, 0.55 mm wide; widest at anterior third; anteriorly narrowed in smooth convex curve; posteriorly nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation denser and deeper than on head; midline impunctate; irregular line adjacent to midline approximately with 17-18 punctures; surface without microsculpture; shiny. Elytra: 0.62 mm long, 0.64 mm wide; without humeral angles; sides posteriorly divergent; posterior angles sub-rectangular; posterior margin slightly retreated to suture; setiferous punctuation as deep and dense as on pronotum; on average; interstices between punctures as wide as diameter of punctures; surface with weak irregular ground sculpture; less shiny than head and pronotum. Abdomen with setiferous punctuation as dense as on elytra but weaker than on elytra; setae pointing posterioriad; surface with weak transverse netlike microsculpture; matt; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergite VII straight. Aedeagus oval; without anterior angles; cones extremely short; C : A = 0.04; sclerotised endophallus in anterior half transparent; in posterior half densely covered by short teeth; with several torsions; parameres short and slender; not divided into two lobes; without sensillae or setae.

**Etymology:** The species name is a diminutive of the Latin word *brevis* meaning short and refers to the short elytra.

*Somoleptus brooksi* spec. nov.

urn:lsid:zoobank.org:act:1FBC2EAA-2437-4B42-AE58-9D3601836AE1

Figs 4a–d, 49 D

**Type material:** male, holotype: French Guiana: Roura, 8.4 km SSE (52°13.25’W, 4°40.41’N), 200 m elev., flight intercept trap, 25.-29.5.1997, leg. J. Ashe, R. Brooks #FG1AB97 088 (KNHM). Paratypes: French Guiana: 2 females with same data as holotype except 240 m, 280 m elev., 29.5.-16.6.1997, 25.-29.5.1997 (KNHM); 4 females, Sâul, 7 km N, 0.5 km ESE, 3 km NW Les Eaux Claires, Mt. La Funée (53°13.19’W, 3°39.46’N), flight intercept trap, 4.-8.6.1997, 1.-8.6.1997, leg. J. Ashe, R. Brooks #FG1AB97 164/162 (KNHM); 2 females, 2, 7 km N, 2-9 km NW, NW Les Eaux Claires, along Rue de Belizon trail (53°13.19’W, 3°39.46’N), 220-240 m elev., flight intercept trap, 31.5.-3.6.1997, leg. J. Ashe, R. Brooks #FG1AB97 122 (KNHM); 6 males, 4 females, Cayenne, 33.5 km S and 8.4 km NW Hwy N2 on Hwy D5 (52°28.41’W, 4°48.18’N), 30 m elev., flight intercept trap, 29.5.-9.6.1997, leg. J. Ashe, R. Brooks #FG1AB97 171 (8 KNHM, 2 UIC).
**Diagnosis:** The species resembles *S. aenescens* in external appearance as it is a moderately large species with moderately small eyes. The aedeagus is unique among the known *Somoleptus* species by the small circular closure of the central lobe. Additionally, the parameres are extremely broad, forming a forceps-like structure.

**Description:** Length: 5.5 mm. Colouration: Black; legs and antennae dark brown.

Head: 0.89 mm long, 0.69 mm wide; eyes moderately large, slightly prominent; PS : E ratio 3.3; postierad, sides slightly divergent; posterior angles combined with posterior margin semi-circular; interantennal furrows weak; setiferous punctuation irregular; on average, extremely sparse and moderately deep; on average, 2–3 times as long as diameter of punctures; on interocular space partly denser and with larger punctures; surface without microsculpture; polished. Antennae with first antennomere slightly longer than half-length of head; antennomeres 2 and 3 longer than wide; combined slightly shorter than half-length of first antennomere; antennomeres 4–10 wider than long and increasing in width; antennomere 4 nearly twice as wide as long, antennomere 10 nearly 3 times as long as wide; antennomeres 4–11 pubescent. Pronotum: 1.05 mm long, 0.62 mm wide; widest near middle; anteriad narrowed in long convex curve; postierad slightly convergent; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation as deep as on head but slightly denser; on average, interstices between punctures 1.5–2 times as wide as diameter of punctures; wide midline impunctate; irregular line adjacent to midline with 10–14 punctures; surface without microsculpture; polished. Elytra: 0.88 mm long, 0.83 mm wide; humeral and posterior angles sub-rectangular; postierad, sides slightly divergent; posterior margin slightly retreated to suture; setiferous punctuation as deep and dense as on pronotum; along suture slightly deeper; surface without microsculpture; shiny. Abdomen with setiferous punctation as deep as on elytra but distinctly finer; surface without microsculpture; shiny; posterior margin of male sternite VII with semi-circular emargination at centre; posterior margin of male tergite VII straight. Aedeagus oval; egg-shaped; at base slightly wider than at apex; apical angles obtuse; ventral closure circular; apical orifice wide with cones retreated interiorly; C : A ratio 0.22; sclerotized endophallus with central torsion and covered by moderately large teeth; in apical straight part, teeth smaller; at apex nearly transparent; parameres long and thick; half as long as total length of central lobe; basic part straight; at apex shortly curved to inner side; forming a forceps; at base with numerous setae; apically with numerous sensillae.

**Etymology:** The species name honours R. Brooks, who collected extensively in the Neotropical region together with J. Ashe.

**Type material examined:** male Holotype. Panama: Bocas d. Toro, Cerro Pata de Macho Trail, W of Cerro Horoqueta, near Boquete (82°23'W, 8°53'N), lower montane rain forest, sifting litter, 1780 m elev., 10–12.8.1987, leg. D.M. Olson (FMNH). Paratype: Costa Rica: 1 male, 3 females, Heredia, Porrosati, 6 km N San José de la Montana (84°7.0'W, 10°5.3'N), 1900 m elev., Berlese, forest litter, 27.6.1997, leg. R. Anderson #CR1A97 039C (KNHM); 2 females, San José/Cartago, km 45, Int. Amer. Hwy. 6 km N El Empalme (83°58.3’W, 9°45.0’N), 1975 m elev., Berlese, forest litter, 8.6.1997, leg. R. Anderson #CR1A97 007C (KNHM); 1 female, km 89, Int. Amer. Hwy., Cerro Buenavista (83°45.30'W, 9°33.0’N), 3300 m elev., Berlese forest litter, 8.6.1997, leg. R. Anderson #CR1A97 010D (KNHM); 3 females, Cartago, Cerro Chirripo, Valle de los Conoels (83°29.23’W, 9°28.37’N), 3600 m elev., paramo shrub litter, 26.6.1999, leg. R. Anderson #CR1A99-104C (KNHM); Panama: 1 female with same data as holotype, but (82°24’W, 8°50’N), 8.-10.8.1987, and elevation 2020 m (FMNH); 1 female, Chiriqui, km 20 N Gualaca, Finca La Suiza (82°12.0’W, 8°39.0’N), 1450-1600 m elev., oak forest litter, 11.6.1995, leg. R. Anderson #PAN1A95 18C (KNHM); 1 female, 27.7 km W Volcan, Hartmann’s Finca (82°48.0’W, 8°45.0’N), 1800 m elev., oak forest litter, 16.6.1995, leg. R. Anderson #PAN2A95 28C (KNHM).

**Diagnosis:** According to the shape of the elytra, *S. brunneus* resembles *S. alticola*. However, the elytra of *S. alticola* are still shorter and the colouration is much darker than in *S. brunneus*. Moreover, males are distinguished from *S. alticola* by the different shape of sternite VII and the endophallus. The parameres are similarly slender in both species, but the row of setae at the inner face is longer in *S. brunneus* than in *S. alticola*.

**Description:** Length: 4.9 mm. Colouration: dark brown, legs and antennae light brown.

Head: 0.84 mm long, 0.69 mm wide; eyes extremely small; PS : E ratio 5.0; postierad, sides slightly divergent; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation dense and moderately deep; on average, interstices between punctures 1.5–2 times as wide as diameter of punctures; narrow midline impunctate; surface without microsculpture; polished. Antennae with first antennomere half-length of head; second and third antennomere longer than wide; conical; combined slightly shorter than half-length of first antennomere; third slightly shorter than second; following antennomeres twice as wide as long; increasing in width; antennomere 4–11 pubescent. Pronotum: 1.00 mm long, 0.62 mm wide; widest at anterior third; anteriad narrowed in smooth curve; sides posteriorly slightly convergent; posterior angles sub-rectangular;
posterior margin slightly convex; setiferous punctuation finer and sparser than on head; wide midline impunctate; adjacent to midline with irregular row of 20 punctures; surface without microsculpture, polished. Elytra: 0.68 mm long, 0.72 mm wide; humeral angles nearly absent; sides posteriorly divergent to sub-rectangular posterior angles; posterior margin retreated to suture; setiferous punctuation as dense and deep as on head; surface partly with irregular fine ground sculpture; less shiny than head and pronotum. Abdomen with similarly dense and deep setiferous punctuation as elytra; surface with transversely reticulate microsculpture; slightly shiny; posterior margin of male sternite VII with weak triangular incision; posterior margin of male tergite VII slightly convex. Aedeagus oval; cones at apical orifice moderately long; C : A ratio 0.15; sclerotised endophallus in most parts broad and covered by minute teeth; at base with several large teeth; inner lobe of parameres slender; much longer than cones; at inner face with row of long setae; outer lobe short.

Etymology: The species name refers to the brown colouration

Somoleptus cavicola (Blackwelder, 1943) comb. nov.

Figs 16a, b; 46 H

Lithocharodes cavicola Blackwelder, 1943: 499

Type material examined: male, holotype: Trinidad: deep in cave of Aripo Valley, ca. 2600 feet elev., 18.4.1935, leg. N.A. Weber (MCZ).

Diagnosis: Among the brown species of the genus, S. cavicola can be distinguished by the yellowish-brown humeral angles of the elytra. Furthermore, the aedeagus is characteristic by the small endophallus and the parameres, which are broad at base and narrowed to an acute apex.

Description: Length: 5.2 mm Colouration: Dark brown; base of elytra lighter, yellowish brown; legs and antennae yellow-brown.

Head: 0.87 mm long, 0.68 mm wide; long-oval; posterior, slightly divergent to nearly semi-circular posterior margin; eyes small; PS : E ratio 4.6; praeocular sides slightly emarginate to base of mandibles; interantennal furrows weak; reaching anterior third of eyes; umbilicate punctuation weak and sparse; on average, interstices between punctures 10 times as wide as diameter of punctures; surface without microsculpture polished. Antennae geniculate; first antenennome slightly longer than half-length of head; second and third antenennomere triangular and slightly longer than wide; following antennomeres wider than long and increasing in width; fourth antennomere nearly twice as wide as long; tenth antennomere 2.5 times as wide as long; all antennomeres with long setae; antennomeres 4–11 pubescent. Pronotum: 1.01 mm long, 0.63 mm wide; widest at anterior third; anteriad, convergent to neck in wide convex curve; posterior, slightly convergent in central third, nearly parallel in posterior third; posterior margin straight; posterior angles shortly rounded; setiferous punctuation distinctly denser and larger than on head; narrow midline impunctate; irregular line of punctures adjacent to midline with approximately 18 punctures; surface without microsculpture; polished. Elytra: 0.88 mm long, 0.79 mm wide; humeral angles nearly rectangular; sides posteriorly nearly parallel; posterior angles nearly rectangular; posterior margin curved; posterior margin widely retreated to suture; setiferous punctuation dense and moderately deep; on average; interstices between punctures as wide as diameter of punctures; surface with irregular coriaceous ground sculpture; less shiny than head and pronotum. Abdomen densely covered by setiferous punctuation; setae pointing posteriad; surface with weak isodiametric microsculpture; male sternite VII and tergite VII simply rounded at posterior margin; posterior margin of male sternite VII slightly more prominent than that of tergite VII. Aedeagus round oval; cones at apical orifice short; C : A ratio 0.08; endophallus small; straight in anterior half; with loop in posterior half; teeth of endophallus small; in anterior half slightly larger than in posterior half; inner lobe of parameres long; nearly half as long as total length of aedeagus; triangular with acute apex; without setae, but numerous sensillae; outer lobe irregularly triangular and transparent.

Somoleptus columbicus Bernhauer 1915

Figs 30a–d; 46 l

Somoleptus columbicus Bernhauer, 1915: 13

Somoleptus cumbiens Bernhauer, 1915 (see Herman 2001: 3750, Scheerpeltz 1933: 1304)

Type material examined: male, holotype: Columbia, leg. Hummler (FMNH).

Diagnosis: The species is characterised by its small eyes, the absence of hind wings and humeral angles. In this respect it resembles S. agricola and S. brunneus. It is separated from S. agricola by the brown colouration and from S. brunneus from the larger eyes and the postocular parallel sides. Additionally, males can be easily distinguished from these two species by the long triangular tooth at posterior margin of male sternite VII and the long cones at the apical orifice of the aedeagus.

Description: Length: 4.1 mm. Colouration: Brown; pronotum and elytra lighter brown; elytra at base indistinctly darkened.

Head: 0.73 mm long, 0.53 mm wide; eyes small; PS : E ratio 8.0; approximately parallel; posterior angles shortly rounded; posterior margin nearly straight; inter-
antennal lines weak; setiferous punctuation moderately dense and deep; on average, interstices between punctures slightly wider than diameter of punctures; without impunctate midline; only on clipeus a narrow central space impunctate; surface with extremely weak irregular microsculpture; shiny. Antennae geniculate; first antennomere slightly longer than length of head; second and third antennomeres triangular; second antennomere 1.5 times as long as third; third antennomere as long as apical width; following antennomere thick; wider than long and increasing in width; fourth antennomere approximately twice as wide as long; tenth antennomere nearly 2.5 times as wide as long; antennomeres 4–11 pubescent; all antennomeres with setae. Pronotum: nearly 2.5 times as wide as long; antennomeres 4–11 than long and increasing in width; fourth antennomere as apical width; following antennomere thick; wider 1.5 times as long as third; third antennomere triangular; second antennomere slightly longer than length of head; second and third antennomeres triangular; second antennomere 1.5 times as long as third; third antennomere as long as apical width; following antennomere thick; wider than long and increasing in width; fourth antennomere approximately twice as wide as long; tenth antennomere nearly 2.5 times as wide as long; antennomeres 4–11 pubescent; all antennomeres with setae. Pronotum: 0.91 mm long, 0.54 mm wide; widest at middle; anteriod convexly narrowed; posteriad, nearly parallel; posterior angles strongly rounded; posterior margin nearly straight; setiferous punctuation as dense and deep as on head except wide impunctate midline; adjacent to midline with irregular line of 12-13 punctures; without microsculpture; shiny. Elytra: 0.64 mm long, 0.63 mm wide; humeral angles absent; sides posteriad divergent; posterior angles nearly rectangular; posterior margin v-shaped; umbilicate punctuation dense and deep; denser than on head and pronotum; on average, interstices between punctures slightly shorter than diameter of punctures; surface with irregularly weak microsculpture; less shiny than head and pronotum. Abdomen with weaker and finer setiferous punctuation than on pronotum. Surface with more microsculpture, especially on elytra; surface more reticulate; less shiny; punctation than on forebody; transversely reticulate pronotum. Abdomen with weaker and finer setiferous punctuation than on pronotum; transversely reticulate microsculpture deeper than on elytra; still less shiny; male sternite VII with long acute triangular process; male aedeagus: C : A ratio 0.45; endophallus slender; with one narrow loop in posterior half; covered by large lobes; lobes widest in both regions smaller in head, larger in elytra, front wider than elytra. Angles combined with posterior margin approximately 291°. PS : E ratio 7.9; postocular sides divergent; posterior angles combined with posterior margin approximately 135°.

**Samoleptus curtipennis** spec. nov. urn:lsid:zoobank.org:act:CA403F62-42E7-410F-B533-661C0864A73B Figs 31a–d, 48 F

**Type material:** male, Holotype: Guatemala, El Progreso, Cerro Pinalón (15.08528, -89.95095), 2465 m elev., leaf litter, cloud forest, sifted, 2.5.2009, leg. Kansas Museum, #LLAMA09 Wm-B-01-1-07 (KNHM). Paratypes: Mexico: Chiapas, 1 female, Cerro Huitepec, ca. 5 km W San Cristobal, 2700 m elev., oak forest litter, 14.9.1992, leg. R.S. Anderson #92-100 (KNHM); 2 females, San Cristobal de las Casas, Res. Huitepec (92°40.70’W, 16°45.84’N), 2450 m elev., cloud forest lit., 11.7.2003, leg. R. Anderson #MEX1A03 108 (KNHM); 8 females, 3 males, Mpio: Huixtán, Bazóm (92°29.18’W, 16°44.19’N), 2450 m elev., oak forest litter, 9.7.2003, leg. R. Anderson #MEX1A03 107 (9 KNHM, 2 UIC); 1 female with same data but mixed magnolia/oak forest litter (KNHM); 1 male, 2 females, Tenajapa, Cerro Tzontehuitz (92°35.033’W, 16°48.683’N), 2864 m elev., mixed cloud forest litter, 29.7.2005, leg. R. Anderson #MEX1A05-01 (KNHM); 1 female, Angel Albino Corzo Reserva El Tríunfo, Pico El Tríunfo (92°48.70’W, 15°40.16’N), 2400 m elev., cloud for. litter, 16.-21.11.2001, leg. R. Andersom #MEX1A01 204 (KNHM); 4 females, Chalchihuitan, Cerros de Chalchihuitan (92°37.13’W, 16°59.20’N), 2050 m elev., cloud forest litter, 24.7.2003, leg. R. Anderson #MEX1A03 120 (KNHM); 1 female, P.N. Solhistuacan, Reserva La Verba-buena (92°53.52’W, 17°11.00’N), 1850 m elev., oak/pine/liquid ambar forest litter, 22.7.2003, leg. R. Anderson #MEX1A03 117 (KNHM); 1 female, Tapalapa, Cerro El Calvario, nr. Tapalapa (93°07.21’W, 17°11.11’N), 2200 m elev., wet cloud forest litter, 23.7.2003, leg. R. Anderson #MEX1A03 118 (KNHM); Guatemala: 4 males, 1 female with same data as holotype (KNHM); 2 males, 1 female, same region, habitat, and collectors, but (15.08392, -89.93013) 2750 m elev., 1.5.2009 (KNHM); 1 male, 1 female, same data, but (15.08411, -89.93239) 2715 m elev. (KNHM); 16 males, 13 females, same region, habitat, and collectors, but (15.08731, -89.94405) 2550 m elev., 30.4.2009 (26 KNHM, 3 UIC); 10 males, 13 females, same data, but (15.08407, -89.94548) 2560 m elev. (22 KNHM, 1 UIC); 3 males, 8 females, same region, habitat, and collectors, but (15.08350, -89.95319) 2500 m elev., 2.5.2009 (KNHM); 2 males, 1 female, same region, habitat, and collectors, but (15.08432, -89.93801) 2640 m elev., 1.5.2009 (2 KNHM, 1 UIC); 6 males, 6 females, El Progreso, Cerro Pinalon (-89.94548, 15.08407), 2560 m elev., sifted leaf litter, cloud forest, 30.4.2009, leg. Anony-mus #LLAMA09 Wa-B-01-1-all (10 KNHM, 2 UIC); 4 males, 4 females, same data as holotype, but (-89.93492, 15.08467), (-89.9301, 15.08392), 2680 m elev., 2750 m elev., 1.5., 4.5.2009 (KNHM); 3 females, Quetzaltenango, Volcan Siete Orejas, summit rd. (-91.5844, 14.7948), 2911 m elev., 3072 m elev., sifted cloud forest litter/oak forest litter 5.6.2015, leg. R. Anderson #GUAT1A15 112 (KNHM).

**Diagnosis:** Among the species with short elytra and absent humeral angles, *S. curtipennis* mostly resembles *S. alticola* from the same region by the extremely short elytra and the black colouration. The apical cones of the aedeagus are similarly short. In *S. alticola* the posterior margin of the elytra is more retracted to the suture than in *S. curtipennis*. The smaller endophallus of the aedeagus is covered by large spines in *S. curtipennis*; whereas it is broader and covered by minute teeth in *S. alticola*.

**Description:** Length: 5.2 mm. Colouration: Black, legs light brown; antennae slightly darker brown. Head: 0.85 mm long, 0.65 mm wide; eyes short; PS : E ratio 7.9; postocular sides divergent; posterior angles combined with posterior margin approximately...
semi-circular; setiferous punctuation moderately deep and dense; on average, interstices between punctures as wide as diameter of punctures; on posterior vertex interstices slightly wider; between eyes with small impunctate area; surface with extremely weak isodiametric microsculpture; moderately shiny. Antennae with first antennomere half-length of head; second and third antennomeres longer than wide; conical; combined half-length of first antennomere; following antennomeres wider than long and increasing in width; 1.5 times as wide as long; antennomeres 4–11 pubescent. Pronotum: 1.08 mm long, 0.71 mm wide; widest at anterior third; anteriad, sides convergent to neck; posteriadd approximately parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation as dense and deep as on head; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.71 mm long, 0.80 mm wide; humeral angles absent; sides slightly divergent; posterior angles rectangular; posterior margin retreated to suture; setiferous punctuation much denser than on head and pronotum; on average, interstices between punctures half as wide as diameter of punctures; surface with extremely weak microsculpture; moderately matt. Abdomen with finer setiferous punctuation than on fore-body, as dense as on pronotum; posterior margin of sternite and tergite VII of male centrally prominent. Aedeagus oval; cones at apical orifice short; C : A ratio 0.07; sclerotised endophallus elongate with torsions and long spines; parameres slender; nearly half as long as total length of the aedeagus is specific by the absence of a sclerotised endophallus. It can be separated from the similar S. admirabilis only by the aedeagus. Compared to S. admirabilis, the aedeagus of S. curtulus is smaller and the apical orifice with cones is retreated.

**Etymology:** The species name is a combination of the Latin words *curtus* (meaning short) and *pennis* (meaning elytra) and refers to the short elytra of the species.

*Somoleptus curtulus* spec. nov.

urn:lsid:zoobank.org:act:4FC0C167-057B-41E4-BCB3-576DC2B47F32

Figs. 12a–d; 46 J

**Type material:** male, holotype: Panama: Chiriqui, El Mirador, Finca Collins, nr Boquete, 6000 ft elev., cloud forest litter, Berlese, 25.4.1976, leg. A. Newton (FMNH). Paratypes: Costa Rica: 6 males, 6 females, Puntarenas, Valle de Silencio, Bajando, Cerro Quemado, Cerro Frantzius (82°59.01'W, 9°03.43'N), 2202 m elev., mixed oak forest litter, 27.2.2005, leg. R. Anderson (10 KNHM, 2 UIC); 2 females, Limon, Valle de Silencio, Estación (82°57.43'W, 9°06.37'N), 2473 m elev., oak forest litter, 26.–27.2.2005, leg. R. Anderson (KNHM); 2 females, Heredia, Vara Blanca, 6 km ENE Vara Blanca (84°07'W, 10°11'N), 2100 m elev., montane forest litter, 15.–22.4.2002, leg. R. Anderson #CR2A02 04 (KNHM); 1 female, Puntarenas, San Vito, Estac. Biol. Las Alturas, Alturas, 2 km NE (82°50.4'W, 8°58.26'N), 1720 m elev., Berlese leaf litter, 21.6.1998, leg. R. Anderson #CRI1A98 106 (KNHM); Panama: 4 males, 2 females, Chiriqui, Finca Lerida, near Boquete, 5650 ft elev., forest floor litter at base of stump, 14.3.1959, leg. H. Dybas (5 FMNH, 1 UIC); 23 males, 25 females, Chiriqui, 27.7 km W Volcan, Hartmann’s Finca (82°44.36'W, 8°51.42'N), 1500 m elev., oak forest litter, 16.6.1995, leg. R. Anderson (40 KNHM, 2 UIC); 3 females, 5.9 km N Cerro Punta, Parc. Nat. Volcan Baru (82°34.0’W, 8°22.0’N), 2400 m elev., bamboo forest litter, 14.6.1995, leg. R. Anderson (KNHM); 1 female, 5.6 km N Boquete, La Culebra Trail (8°49.23’N, 82°25.18’W), 1800 m elev., cloud forest litter, 15.6.1996, leg. R. Anderson, #PAN2A 96-131E (KNHM); 12 males, 34 females, 12 km NE Santa Clara, Cerro Pando (82°54.44’W, 8°54.44’N), 2000 m, 1850 m elev., cloud forest litter, oak forest litter, 17.6., 18.6.1996, leg. R. Anderson (44 KNHM, 2 UIC); 16 males, 17 females, 8.4 km NW Boquete, Volcan Baru (82°28.0’W, 8°48.0’N), 1860 m elev., dry oak forest litter, 18.6.1996, leg. R. Anderson (42 KNHM, 2 UIC).

**Diagnosis:** The species is conspicuous among the species with short elytra by the large size. Moreover, the structure of the aedeagus is specific by the absence of a sclerotised endophallus. It can be separated from the similar S. admirabilis only by the aedeagus. Compared to S. admirabilis, the aedeagus of S. curtulus is smaller and the apical orifice with cones is retreated.

**Description:** Length: 6.2 mm. Colouration: Black; legs and antennae light brown.

Head: 0.89 mm long, 0.77 mm wide; eyes moderately short; PS: E ratio 5.4; slightly divergent; posterior angles combined with posterior margin nearly semi-circular; except short straight part in front of neck; setiferous punctuation deep and dense; on average, interstices between punctures as wide as or slightly shorter than diameter of punctures; vertex with narrow impunctate midline; on anterior head with wider impunctate midline; at posterior head with contiguous punctuation; surface without microsculpture; shiny. Antennae with first antennomere distinctly longer than half-length of head; second and third antennomeres conical; combined half as long as first antennomere; following antennomeres wider than long; fourth antennomeres slightly wider than long; tenth antennomere nearly twice as wide as long; antennomeres 4–11 pubescent. Pronotum: 1.18 mm long, 0.72 mm wide; parallel; widest at anterior fifth; shortly narrowed in convex curve; posteriadd continuously narrowed to sub-rectangular hind angles; posterior margin slightly convex; setiferous punctuation deep and dense, but slightly less dense than on head; on average, interstices between punctures as wide as or slightly wider than diameter of punctures; wide midline impunctate; Elytra: 0.71 mm long, 0.82 mm wide; without humeral angles; sides slightly divergent to posterior sub-rectangular angles; without hindwings; posterior margin triangularly retreated to suture; setiferous punctuation still denser than on head; interstices between punctures distinctly shorter than diameter of punctures; partly coriaceous; surface with irregular ground sculpture; partly with micro-punctuation; matt. Abdomen with setiferous
punctuation as dense as on elytra, but less deep; surface with isodiametric microsculpture; matt; posterior margin of male sternite VII with deep triangular incision; posterior margin of male tergite VII straight. Aedeagus nearly circular; without sclerotised endophallus; cones at large orifice in relation to aedeagus large; C : A ratio 0.25; parameres as long as two third of total length of aedeagus; hook-like with curved apical part; not divided in inner and outer lobe; few short setae at inner face; few setae on shaft.

**Etymology:** The species name is the diminutive of the Latin word *curtus* (meaning short) and refers to the short elytra.

_Somoleptus elongatus_ spec. nov.

*um:isid.zoobank.org:act:1ECB6C9-33DF-43AB-8418-7FB573C1DE49

**Type material:** male, holotype: Peru, Huanuco, Biological Station Panguana, rainforest, February, 1975, leg. W. Hanagarth (UIC). Paratype: female, Peru, Huanuco, Biological Station Panguana (74°56’W, 9.37’S), inundation forest, 6.5.1976, leg. W. Hanagarth (UIC).

**Diagnosis:** Among the similarly large species of approximately 6 mm length, the elytra of *S. elongatus* are longer than wide. Additionally, the black colouration is characteristic for the species. Males can be easily identified by the specific structure of the aedeagus with the triangular cones at apical orifice placed on short styli.

**Description:** Length: 6.01 mm. Colouration: Black; legs and antennae dark brown.

Head: 0.94 mm long, 0.72 mm wide; eyes moderately small; PS : E ratio 4.1; parallel; posterior angles combined with posterior margin nearly semi-circular; setiferous punctuation irregularly sparse and moderately deep; on average, interstices between punctures 1.5 to 2 times as wide as diameter of punctures; without traces of impunctate midline; surface without microsculpture; polished. Antennae with first antennomere distinctly longer than half-length of head; second and third antennomere each twice as long as wide; combined as long as first antennomere; following antennomeres wider than long and increasing in width; fourth twice as wide as long; tenth 2.2 times as wide as long; antennomere 4–11 pubescent. Pronotum: 1.18 mm long, 0.74 mm wide; widest at anterior third; narrowed anteriad in smooth convex curve; posteriad nearly parallel; posterior angles subrectangular; posterior margin slightly convex; setiferous punctuation similarly dense and deep as on head, but with moderately wide midline impunctate; surface without microsculpture; polished. Elytra: 1.04 mm long, 0.98 mm wide; humeral and posterior angles subrectangular; sides posteriad slightly divergent; posterior margin slightly retreated to suture; setiferous punctuation distinctly denser than on head and pronotum; on average, interstices between punctures as wide as diameter of punctures or slightly shorter; surface without microsculpture, but less polished than pronotum. Abdomen with still denser setiferous punctuation than elytra; setiferous punctuation partly coriaceous; posterior margin of male sternite and tergite VII straight. Metatibia with four subapical ctenidia. Aedeagus oval; cones short; C : A ratio 0.22; placed on short styli in short distance from the apical orifice; distinctly triangular; sclerotised endophallus with two torsions and irregular teeth; at basal end with long spine; parameres broad; shape spoon-like; at apex acute; at base narrower than at middle; at outer edge with numerous cannulate sensillae; on inner edge at apex with one seta.

**Etymology:** The species name is the diminutive of the Latin word *elongatus* which, among others, means distant from and refers to the specific structures of the apical cones of the aedeagus, which are shortly away from the apical orifice.

_Somoleptus gigas_ spec. nov.

*um:isid.zoobank.org:act:64819C1-0EBB-419F-852D-21FE5D7338C

**Type material:** male, holotype: Costa Rica: Puntarenas Prov., Las Alturas Biol. Sta. (8°56’.17”N, 82°50’.01”W), 1660 m elev., flight intercept trap, 31.5-3.6.2004, leg. J.S. Ashe, Z. Falin, I. Hinojosa, #CR1AFH04092 (KNHM). Paratypes: Mexico: male, Veracruz, 4.0 km S Jalapa, leaf litter along stream, 1350 m elev., 30.51991, leg. J.S. Ashe (KNHM); 1 female, 1.1 km S Jalapa, Coatepec rd., leaf litter in ravine, 1280 m elev., 12.7.1992, leg. J.S. Ashe (KNHM); 2 males, 1 female, 2.3 km S Jalapa, 1320 m elev., forest litter, deep litter in rock cracks, 13.7.1992, 18.7.1992, leg. J.S. Ashe #64, #66 (KNHM); Chiapas, 2 males, 2 females, 10 km W El Bosque, pine/cloud forest, 1475 m elev., 15.9.1992, leg. R. Anderson (KNHM); 1 male, 1 female, 17.3 km NW Bochil, rotten tree base litter, 1800 m elev., 24.9.1992, leg. R. Anderson (1 KNHM, 1 UIC); 2 males, 1 female, Mpio, Huixtán, Bazóm (92°29’.18”W, 16°44’.19”N), 2450 m elev., oak forest litter, 6.7.2003, leg. R. Anderson & MEX1A03107 (KNHM); 1 male, 1 female, Tenecapa, Cerro Tzontehuizt (92°35’.03”W, 16°48’.68”N), 2864 m elev., mixed cloud forest litter, 29.7.2005, leg. R. Anderson #MEX1A05-014 (KNHM); Guatemala: Zacapa, 1 male, 2 females, 2 km SE La Unión (14°54’.42”, -89°27’.66”), 1430 m elev., cloud forest, flight intercept trap, 12.-15.5.2009, #1 LAMA09Ft-B-03-2-02 (KNHM); 4 females, 3.5 km SE La Unión, 1500 m elev., flight intercept trap, 23.-25.6.1993, leg. R. Brooks & J. Ashe (3 KNHM, 1 UIC); Baja Verapaz, 4.8 km E Purulha, 1680 m elev., flight intercept trap, 29.6.-3.7.1993, leg. J. Ashe, R. Brooks, #190 (KNHM); Honduras: 1 female, Lempira, 13.1 km NE & 7.3 km E Gracias, Mt. Puca (14°41’.N, 88°31’W), liquidambar
litter, 1600 m elev., 18.6.1994, leg. R. Anderson, #123E (KNHM); Costa Rica: 1 female, Puntarenas Prov., Monteverde Biol. Sta. (10°19.672’N, 84°49.141’W), cloud forest, flight intercept trap, 10.-17.6.2001, leg. S. & J. Peck, CR1P01 002 (KNHM); female from same region, but 1570 m elev., Berlese, 16.5.1989, leg. J. Ashe, R. Brooks, R. Leschen (KNHM); 1 female from same region, but (10°19.10’N, 84°48.57’W), 1730 m elev., montane forest, litter, 12.6.2001, leg. R. Anderson, #CR1A01 107 (KNHM); 3 males from same region, habitat and collector, but (10°18.53’N, 84°47.49’W) 1600, 1650 m elev., 1 female, San José, 26 km N San Isidro, 2100 m elev., 1.-30.4., 1.-30.11., 1.-30.12.1995, leg. P. Hanson (KNHM); 84°1.0’W), 1600 m elev., malaise trap, Apr.-May 1993, 13.6., 14.6.2001, #CR1A01 111, 113 (KNHM); 4 females, 1 male, San José, Zurqui de Moravia (10°3.0’N, 84°1.0’W), 1600 m elev., chihuacan, 2100 m elev., forest, litter, 24.7.2003, leg. R. Anderson #91-109 (KNHM); 1 male, 24.7.2003, Chalchihuitan (92°37.13’W, 16°59.2’N), 2050 m elev., cloud forest, flight intercept trap, 19.9.1991, leg. R. Anderson #91-109 (KNHM); 1 male, 24.7.2003, Chalchihuitan (92°37.13’W, 16°59.2’N), 2050 m elev., cloud forest litter, 24.7.2003, leg. R. Anderson #MEX1A03 120 (KNHM).

Diagnosis: *Somoleptus gigas* is the largest known species of the genus. With 6.6 mm length it is even larger than *S. maximus*. In contrast to *S. maximus*, the head is very densely punctate and the shape is more triangular; wider at posterior angles than at front. In *S. maximus*, the punctation is finer and the shape of head is oval without posterior angles. Moreover, the pronotum is narrowed in central half, whereas it is nearly parallel in *S. gigas*.

Description: Length: 6.6 mm. Colouration: Black, legs and antennae dark brown.

Head: 1.16 mm long, 0.91 mm wide; eyes moderately long; PS : E ratio 2.4; postocular sides slightly divergent posteriad; posterior angles combined with posterior margin nearly semi-circular; setiferous punctation extremely dense and deep; partly coriaceous; between eyes with irregularly wide impunctate midline; surface without microsculpture; shiny. Antennae with first antennomere more than half-length of head; second and third antennomere longer than wide; conical; combined as long as half-length of first antennomere; following antennomeres wider than long; increasing in width; approximately twice as wide as long; all antennomeres pubescent. Pronotum: 1.31 mm long, 0.81 mm wide; widest at anterior third; convergent to neck in smooth curve; sides posteriorly nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctation sparser than on head; wide midline impunctate; surface without microsculpture; polished. Elytra: 1.31 mm long, 1.19 mm wide; humeral and posterior angles sub-rectangular; sides slightly divergent posteriad; posterior margin triangle retroverted to suture; setiferous punctation deep and dense; on average, interstices between punctures as wide as diameter of punctures; surface without microsculpture; shiny. Abdomen with setiferous punctation as dense but less deep than on elytra; setae long; pointing posteriad; surface without microsculpture; moderately shiny; posterior margin of male sternite VII slightly emarginate; posterior margin of male tergite VII slightly prominent (similar as in Fig. 44c, d). Aedeagus oval with sub-rectangular anterior angles; cones at apical orifice long; C : A ratio 0.28; sclerotised endophallus with torsion in longitudinal direction; covered by lobes; parameres divided into two lobes; outer lobe plane; approximately half as long as inner lobe; inner lobe triangular; only slightly longer than cones; at inner edge with row of paired long setae.

Etymology: The species name is derived from the Greek word *gigas* meaning huge and refers to the large size of the species.

*Somoleptus grandiconus* spec. nov.

urn:lsid:zoobank.org:act:4207A3A4-F874-44F2-83CA-00973148C3EE

Figs 37a, b; 49 A

Type material: male, holotype: Mexico, Chiapas, Yerbabuena Reserve, 2.1 km NW Pueblo Nuevo, Solistahuacan, 2100 m elev., cloud forest litter, 23.9.1992, leg. R.S. Anderson #92-114 (KNHM). Paratypes: 3 males with same data as holotype (2 KNHM, 1 UIC); male, 5 km NNW Coapilla (-93.15179, 17.18224), malaise trap, mesophile forest, 1910 m elev., 25-28.5.2008, leg. Anonymous #LLAMA08 Ma-A-04-2-01 (KNHM); 1 male, 8.9 km NW Rayon, 1500 m elev., cloud forest litter, 19.9.1991, leg. R. Anderson #91-109 (KNHM); 1 male, 24.7.2003, Chalchihuitan (92°37.13’W, 16°59.2’N), 2050 m elev., cloud forest litter, 24.7.2003, leg. R. Anderson #MEX1A03 120 (KNHM).

Diagnosis: The main character to separate *S. grandiconus* from other *Somoleptus* species is the large conus at the apical orifice of the aedeagus.

Description: Length: 4.6 mm. Colouration: Black; legs and antennae dark yellow.

Head: 0.77 mm long, 0.55 mm wide; eyes moderately large; PS : E ratio 4.0; postocular sides shortly parallel; posterior angles combined with posterior margin semi-circular; interantennal furrows absent; setiferous punctation moderately deep and dense; on average, interstices between punctures 1.5–2 times as wide as diameter of punctures; without impunctate midline, except short interocular part; surface without microsculpture; shiny. Antennae with first antennomere slightly longer than half-length of head; antennomeres 2 and 3 longer than wide; combined slightly longer than half-length of first antennomere; antennomeres 4–10 wider than long and approximately 1.5 times as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.88 mm wide, 0.54 mm wide; widest shortly behind anterior third; anteriad convergent to neck; posteriad nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctation similarly deep and dense as on head; wide midline impunctate; irregular row of punctures adjacent to midline with approximately 15 punctures; surface without microsculpture; shiny. Elytra: 0.70 mm
long, 0.63 mm wide; humeral and posterior angles sub-rectangular; sides approximately parallel; posterior margin slightly retreated to suture; setiferous punctuation as deep as on head and pronotum but distinctly denser; on average, interstices between punctures as wide as diameter of punctures; surface with weak isodiametric microsculpture; matt. Abdomen with setiferous punctuation as dense as on elytra but weaker; setae pointing posterioriad; at base of segments with netlike microsculpture; at apex of segments microsculpture isodiametric and extremely fine; shiny; posterior margin of male sternite VII broadly prominent; posterior margin of male tergite VII with short semi-circular prominence as in Fig. 31c, d. Aedeagus oval with sub- rectangular anterior angles; cones at apical orifice extremely large and broad; C : A ratio 0.60; endophallus slightly curved; broad; covered by teeth; teeth at apex longer than at base; parameres divided into plate-like outer lobe and slender inner lobe; nearly as long as total aedeagus; inner lobe with row of setae at inner edge and several sensillae.

**Etymology:** The species name is a combination of the Latin words *grandis* (meaning large) and *conus* referring to the large cones at the apical orifice of the aedeagus.

### Somoleptus humicola spec. nov.

um.isid.zoobank.org:act:FF922A61-25BA-4E3B-9F07-EB9182E39F91

**Figs 41a, b; 50 B**

**Type material:** male, holotype: Mexico: Oaxaca, 32 km SW Valle Nacional, km 85, 1650 m elev., trans/cloud forest leaf litter, Berlese, 26.7.1992, leg. R.S. Anderson #92-030 (KNHM); Paratypes: 1? (abdomen lacking), 1 male, same data as holotype (KNHM); 1 male, same region as holotype but 40 km SW, km 93, 1900 m elev., oak forest leaf litter, Berlese, 26.7.1992, leg. R.S. Anderson #92-031 (UIC).

**Diagnosis:** *Somoleptus humicola* resembles *S. obscurus* in size and colouration. Even the aedeagi are very similar. It can be separated from *S. obscurus* by the different shape of the head. The postocular sides of the head of *S. obscurus* are divergent, egg shaped. In contrast, the postocular sides of *S. humicola* are parallel or even slightly convergent. The slender outer lobe of paramere is longer compared to the outer plate-like lobe in *S. obscurus*.

**Description:** Length: 4.8 mm. Colouration: Brown, abdomen, legs, and antennae slightly lighter brown.

Head: 0.77 mm long, 0.53 mm wide; eyes long; prominent; PS : E ratio 2.25; postocular sides slightly convergent; posterior angles combined with posterior margin nearly semi-circular; interantennal furrows distinct; setiferous punctuation deep; irregularly dense; on average, interstice between punctures as wide as diameter of punctures; on posterior vertex interstices slightly wider; between eyes much closer; narrow midline impunctate; surface without microsculpture; shiny. Antennae with first antennomere longer than half-length of head; second and third antennomeres longer than wide; combined longer than half-length of first antennomere; antennomeres 4 to 10 wider than long and slightly increasing in width; fourth twice as wide as long; tenth 1.5 times as wide as long; antennomeres 4 to 11 pubescent. Pronotum: 0.86 mm long, 0.49 mm wide; widest at anterior third; sides anterior convergent to neck; in posterior half nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; slightly weaker than on head; as dense as on posterior vertex; wide midline impunctate; irregular row of punctures adjacent to midline with approximately 16 punctures; surface without microsculpture; shiny. Elytra: 0.98 mm long, 0.82 mm wide; humeral angles sub-rectangular; sides posteriorly slightly divergent; posterior angles smooth; posterior margin largely convex; deeply retreated to suture; setiferous punctuation on head and pronotum; surface with weak isodiametric microsculpture; slightly less shiny than pronotum. Abdomen with finer setiferous punctuation than forebody; microsculpture at base of segments transversely reticulate; segments apically without micro- sculpture; shiny; posterior margin of male sternite VII convexly rounded; posterior margin of male tergite VII straight (similar as in Fig. 21c, d). Aedeagus oval; widest near base; anterior angles nearly absent; conical moderately long; C : A ratio 0.21; endophallus with two torsions; weakly sclerotised; partly transparent; with short teeth; basically, with few thicker teeth; parameres longer than half-length of central lobe; divided into two lobes; outer lobe circular plate; inner lobe slender; elongate; along at inner edge with row of numerous setae.

**Etymology:** The species name is derived from the Latin noun *humus* (meaning soil or decomposing organic litter) and the verb *colere* (meaning inhabiting) and refers to the habitat of the species, the litter layer of deciduous woods.

### Somoleptus laevis BERNHAUER, 1908

Figs 2a–d; 47 A

**Somoleptus laevis** Bernhauer 1908: 325

**Type material examined:** female, holotype: Brazil: São Paulo, X.1907, leg. A. Barbiellini (FMNH).

**Additional material examined:** Brazil: Mato Grosso; 2 males, 9 females, Primavera do Leste (54°146′W, 15°26′S), in soil (0-10 cm depth) of pasture, 7.4., 24.4.2014, leg. K. Peña (UIC); 6 males, 11 females, Campo Verde, Santa Luzia farm (55°20′W, 15°43′S), in soil (0-10 cm depth) of pasture, 13.3.2014, leg. K. Peña (UIC); 4 females, Santa Catarina, Nova Teutonia, July 1941,
Dec. 1952, Dec. 1953, leg. F. Plaumann (FMNH); Linha
Facao, male, May 1954, leg. F. Plaumann (KNHM); Para-
guay: Guaira, Melgarqo, Tacuara Creek, flood detritus,
1 male, 4 females, 20.10.1994, leg. U. Drechsel (KNHM);
2 females, Cazaapa Hermosa, prop. Lopez family, San
Rafael Reserve (55°44.29’W, 26°18.56’S), 80 m elev.,
gilled fungus, 3.12.2000, leg. Z.H. Falin #PAR1F00 093
(KNHM); Argentina: Misiones, Reserva Vida Silvestre
Uruguay-1 (54°11’W, 25.97’S), 400 m elev., 15.-17.12.2003,
leg. B. Brown, G. Kung, L. Gonzalez #MT9 (KNHM).

Diagnosis: The species can be easily separated from
the other species of the genus by the yellowish colouration
with nearly black elytra and darker head. Furthermore,
the structure of the aedeagus is specific by the long angled
parameres and the long slender cones at the apical orifice.

Description: Length: 4.6 mm. Colouration: Head blackish-
brown; elytra darker blackish with yellowish posterior
margin and slightly darker humeral angles, pronotum and
abdomen yellowish-brown; legs light brown.

Head: 0.74 mm long, 0.54 wide; eyes large; PS : E ratio 3.2;
nearly parallel; posteriari widely rounded to nearly semi-
circular posterior margin; inter-antennal furrows deep;
setiferous punctuation deep and moderately dense; on
average, interstices between punctures 1.5–2 times as
wide as diameter of punctures; on central vertex with
impunctate midline; surface without microsculpture;
polished. Antennae with first antennomere distinctly
longer than half-length of head; second and third anten-
nomere longer than wide; combined half-length of first
antennomere; third antennomere nearly as long as wide;
following antennomeres wider than long; fourth
antennomere twice as wide as long; tenth antennomere
nearly three times as wide as long; all antennomeres
pubescent. Pronotum: 0.81 mm long, 0.47 mm wide;
widest at anterior third; sides anteriad convergently
narrowed to neck; posterior half nearly parallel; poste-
riar angles obtuse; posterior margin slightly convex;
setiferous punctuation as deep and dense as on head;
with wide impunctate midline; adjacent to midline with
irregular row of approximately 14–15 punctures; surface
without microsculpture; polished; Elytra: 0.73 mm long,
0.74 mm wide; humeral and posterior angles sub-rectan-
gular; sides slightly divergent posteriad; posterior margin
nearly straight; weakly retreated at suture; setiferous
punctuation slightly deeper and denser than on head and
pronotum; on average, interstices between punctures
as wide as diameter of punctures; surface with indis-
tinct isodiametric microsculpture; shiny. Abdomen with
lightly denser, but finer setiferous punctuation; surface
without microsculpture; polished; posterior margin of
male sternites and tergite VII straight. Metabatia with two
subapical ctenidia. Aedeagus oval with sub-rectangular
anterior angles; cones at apical orifice long; C : A ratio 0.42;
sclerotised endophallus broad divided into at least two
strings covered by moderately large lobes; parameres as
long as total length of central lobe; obtusely angled.

_Somoleptus longiceps_ spec. nov.

urn:lsid:zoobank.org:act:852FE924-DE95-473A-B6D1-9D5B58FCB258
Figs 39a, b; 49 H

Type material: male, holotype: Costa Rica: San José/
Cartago, km 89, Int. Amer. Hwy., Cerro Buenavista
(83°45.30’W, 9°33.0’N), 3300 m elev., Berlese forest litter,
8.6.1997, leg. R. Anderson #CR1A97 010C (KNHM).
Paratypes: Costa Rica: 1 male with same data as holotype
(KNHM); 1 male, Heredia Prov., 6 km ENE Vara Blanca
(84°07’W, 10°11’S), 2000 m elev., montane for. leaf litter,
15.-22.4.2002, leg. R. Anderson #CR2A02 05 (KNHM);
Panama: 3 males, 3 females, Chiriqui, 20 km N Gualaca,
Finca La Suiza (82°12.0’W, 8°39.0’N), 1450-1600 m elev.,
oak forest litter, 11.6.1995, leg. R. Anderson #PAN2A95
18E (4 KNHM, 1 UIC); 1 female, 5.9 km N Cerro Punta,
Par. Nac. Volcan Baru (82°34.0’W, 8°22.0’N), 2400 m
elev., bamboo forest litter, 14.6.1995, leg. R. Anderson
#PAN2A95 21C (KNHM).

Diagnosis: Among the species with short eyes and elytra,
_S. longiceps_ resembles _S. brunneus_ und _S. ovatus_ in size
and colouration. It can be distinguished from these two
species mainly by the shape of the head. In _S. brunneus_,
the shape of the head is posteriorly slightly divergent, in
_S. ovatus_ the sides of the head are curved giving the head a
distinctly oval shape. In _S. longiceps_, the head has a para-
 llel shape, which results in a longer length : width ratio
of 1.34 compared to 1.22 in _S. brunneus_. Additionally,
the cones at the apical orifice of the aedeagus are longer
with C : A ratio of 0.33 compared to 0.15 in _S. brunneus_
and 0.22 in _S. ovatus_. Furthermore, the posterior margin
of male sternite VII of _S. brunneus_ is straight, whereas it is
with triangular process in _S. longiceps_ and _S. ovatus_.

Description: Length: 5.1 mm. Colouration: Light brown;
elytra darker brown; legs and antennae lighter brown
than head and pronotum.

Head: 0.83 mm long, 0.62 mm wide; eyes short, not
prominent, PS : E ratio 5.4; postocular sides nearly par-
allel: posterior angles sub-rectangular; posterior margin
centrally straight; interantennal furrows weak; setiferous
punctuation moderately dense and deep; on average,
interstices between punctures as wide as diameter of
punctures; narrow midline impunctate; surface without
microsculpture; shiny. Antennae with first antennomere
half-length of head; antennomeres 2 and 3 longer than
wide; combined longer than half-length of first anten-
nomere; antennomeres 4 to 10 wider than long; at least
twice as wide as long; increasing in width; antennomeres
4–11 pubescent. Pronotum: 0.97 mm long, 0.60 mm
wide; widest slightly behind anterior third; anteriad,
narrowed in smooth convex curve; posteriad, nearly
parallel; posterior angles sub-rectangular; posterior
margin straight; setiferous punctuation as deep and dense
as on head; wide midline impunctate; irregular line of
puncutures adjacent to midline with approximately 17–18
punctures. Surface without microsculpture; shiny. Elytra:
0.66 mm long, 0.70 mm wide; without humeral angles; sides slightly divergent posteriad; posterior angles obtuse; posterior margin convexly curved; deeply retreated to suture; setiferous punctuation deeper and denser than on pronotum; on average, interstices between punctures less wide than diameter of punctures; surface with weak isodiametric microsculpture; less shiny than pronotum. Abdomen with setiferous punctuation as dense as on elytra but much finer; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergite VII straight (similar as in Fig. 21a, d).

**Aedeagus** oval; cones at apical orifice long and relatively slender; C : A ratio 0.33; sclerotised endophallus partly transparent with scattered teeth; partly with thick lobes; parameres one third longer than cones; divided into two lobes; outer lobe circular with row of short spines; inner lobe slender with row of long setae in apical half.

**Etymology:** The species name is derived from the Latin words *longus* (meaning long) and -ceps (short form of caput, meaning head).

**Somoleptus longicollis** (LeConte, 1863) comb. nov.

**Material examined:** USA: 4 females, 1 male, Kansas, Douglas Co. Clinton Lake, 1 km SW dam, off E 900 Rd. (38.901N, -95.334W), sifting leaf litter, 16.10.2010, leg. Z.H. Falin (KNHM); 1 female, same region but 3.2 km N Baldwin, Breidenthal Reserve (38°41.1'N, 95°1.0'W), flight intercept trap, 25.7.-5.8.1996, leg. Z.H. Falin (KNHM); 1 female, Tamaulipas, Gomez Farias, Rancho del Cielo, nr. cabins (23°06.06'N, 99°11.5'W), mixed oak forest litter, 1200 m elev., 17.7.2006, leg. R.S. Anderson #MEXIA06-005 (KNHM); 1 male, Mpo. Gomez Faria, Atlas Cimas, leaf litter, 1000 m elev., 16.3.1989, leg. R.W. Jones (FMNH); 2 males, Gomez Faria, 2 km SW San José, leaf litter, 1350 m elev., 16.3.1988, leg. PW Kowarik (FMNH); 2 females, Chiapas, Nahá (16.962N, -91.593W), sifted leaf litter, mesophile forest, 13.6.2008, 17.6.2008, #LAMA08 Wm-A-07-all (KNHM); 1 male, Chiapas, Sierra Morena (16.159N, -93.605W), sifted leaf litter, mesophile forest, 1360 m elev., 12.5.2008 (KNHM); 2 males, Chiapas, 8.9 km E Rayón, cloud forest litter, 1500 m elev., 19.9.1991, leg. R. Anderson (KNHM); 2 females, 2.6 mi S Rayón, Hwy 195, cloud forest, sifting litter along stream, 1700 m elev., 5.5.1977, leg. J.S. Ashe (FMNH); 1 male, 1 female, Chiapas, Lagunas de Montebello, Cinco Lagos, oak/pine/liquidamber forest litter, 21.9.1991, leg. R. Anderson (KNHM); 40 males, 42 females, Monterey, Chipinque Mesa, forest soil & litter, 5400 ft elev, Berlese, 22.6.1969, leg. S. & J. Peck (79 FMNH, 2 UIC); 4 females, 1 male, L. & J. Peck (FMNH); 2 males, 2 females, Queretaro, 17-18 mi E Landá de Matamoros, 5300 ft elev, leaf litter forest floor, 28.-30.1973, leg. A. Newton (FMNH); 2 males, 4 females, NL 29 km W Linares, S Rosa Can.,oak forest litter, Berlese, 3.6.1983, leg. J. & S. Peck (FMNH); 2 males, 2 females, Nuevo Leon, 5.3 mi S La Escondida, leaf litter, 8.7.1986, leg. PW Kowarik (FMNH); Honduras: 3 males, F. Morazan Dept., Res. Biol. El Chile, nr. Guacamaca (14°21'N, 86°52'W), upper montane forest litter, 1600 m elev., 8.5.2002, leg. R. Anderson #RSA2002-011 (KNHM).

**Remarks:** The species was sufficiently described by Smetana (1982), according to whom it is widely distributed in eastern USA up to the Canadian border. The concentration of records in north-eastern USA may be due to higher collection intensity compared to southern USA. The new records from Mexico and Honduras show that the species also occurs in high mountain sites under a generally warmer climate. The study of the parameres of the aedeagus exhibit that the species has a bilobed paramere with slender inner and plate-like outer lobe. The outer lobe is approximately half as long as the slender inner lobe. The slender inner lobe has 6 setae partly arranged in pairs.
Somoleptus loretensis spec. nov.
urn:lsid:zoobank.org:act:598891A6-352E-4F7E-943C-B72D55B03813
Figs 11a–d; 50 D

Type material: male, holotype: Peru: Loreto Prov., Iquitos, leaf litter in the forest, 90 m elev., 8.5.1992, leg. J. Danoff-Berg (KNHM). Paratypes: Peru, 2 males, 1 female with same data as holotype (2 KNHM, 1 UIC).

Diagnosis: Among the species of medium size (5.0–5.5 mm) with long elytra and large eyes, S. loretensis is conspicuous by the triangular shape of the head. The parameres of the aedeagus are conspicuous by the bilobed structure with both lobes of nearly equal length.

Description: Length: 5.4 mm. Colouration: Brown; anterior half of pronotum light brown; legs and antennae still lighter brown to dark yellow.

Head: 0.55 mm long, 0.49 mm wide; eyes large; slightly prominent; PS : E ratio 2.2; postocular sides distinctly divergent; posterior angles slightly rounded; central part of posterior margin straight; interantennal furrows nearly extinct; supraocular, transverse carina pointing to central vertex; setiferous punctuation weak and sparse; on average, interstices between punctures at least twice as wide as diameter of punctures; narrow midline impunctate; surface without microsculpture; shiny. Antennae with first antennomere slightly longer than half length of head; second and third antennomere conical; elongate; nearly twice as long as wide; following antennomeres wider than long and increasing in width; fourth antennomere 1.3 times as wide as long; tenth antennomere twice as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.63 mm long, 0.40 mm wide; widest in anterior third; anteriad, conically narrowed to neck; posteriorly, slightly narrowed in central third and even less narrowed in posterior third; setiferous punctuation as weak and sparse as on head; wide midline impunctate; irregular line of punctures adjacent to midline with 13 to 15 punctures; surface without microsculpture; shiny. Elytra: 0.54 mm long, 0.54 mm wide; humeral angles obtuse; sides distinctly divergent; posterior angles slightly rounded; nearly rectangular; posterior margin approximately straight with short incision at suture; setiferous punctuation much denser and slightly deeper than on pronotum; surface with weak isodiametric microsculpture; less shiny than pronotum. Abdomen with setiferous punctuation much denser and slightly deeper than on pronotum; surface with weak isodiametric microsculpture; less shiny than pronotum. Abdomen with setiferous punctation as dense as on elytra, but much finer; surface without microsculpture; shiny; posterior margin of male sternite and tergite VII straight (similar as in Fig. 22c, d). Aedeagus oval; at apex indistinctly rectangular with emargination at base of parameres on each side of central orifice; cones at apical orifice short; C : A ratio 0.08; endophallus with apical knot and posterior wide stripe densely covered by minute teeth; stripe posteriorly folded; parameres elongate; bilobed; outer lobe nearly as long and wide as inner lobe; inner lobe curved; with numerous short and fine setae at inner face; setae at base distinctly longer than at apex.

Etymology: The species name is derived from the Peruvian province, where the holotype was collected.

Somoleptus maximus spec. nov.
urn:lsid:zoobank.org:act:7D7BD9DE-0207-4E2B-B3E5-8D8425777B2
Figs 23a, b; 47 B

Type material: male, holotype: Ecuador: Pichincha, 16 km E Sto. Domingo, Tinalandia, 680 m elev., rainforest, Malaise trap, 4.5.–25.7.1985, leg. S. & J. Peck (FMNH). Paratype: female with same data as holotype (FMNH); 1 female, Pichincha, Otongachi Nat. Res., leaf litter, 26.08.2009, leg. Ramon (UIC).

Diagnosis: Among the large species of more than 6 mm size and long elytra, S. maximus can be recognized by the sparse punctuation of head and pronotum.

Description: Length: 6.2 mm. Colouration: Black; legs and antennae brown.

Head: 0.90 mm long, 0.62 mm wide; eyes moderately large; PS : E ratio 3.7; postocular sides approximately parallel; posterior half semi-circular; without rudiments of posterior angles; setiferous punctuation moderately deep; sparse; on average, interstices between punctures at least twice as wide as diameter of punctures; on central and anterior vertexarker; between eyes with impunctate midline; surface without microsculpture; polished. Antennae with first antennomere distinctly longer than half-length of head; second and third antennomere longer than wide and equal in length; combined slightly shorter than half length of first antennomere; following antennomeres twice as wide as long; increasing in width; antennomeres 4–11 pubescent. Pronotum: 1.04 mm long, 0.60 mm wide; widest at anterior third; anteriad narrowed to neck in smooth convex curve; posterior half nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation as deep and dense as on head; moderately wide midline impunctate; surface without microsculpture; polished. Elytra: 0.98 mm long, 0.90 mm wide; humeral and posterior angles sub-rectangular; sides divergent to posterior margin; posterior margin triangularly retroverted to suture; setiferous punctuation much deeper and denser than on head and pronotum; on average, interstices between punctures shorter than diameter of punctures; surface without microsculpture; shiny. Abdomen with setiferous punctuation as dense as on elytra, but much finer; surface without microsculpture; shiny; posterior margin of male sternite and tergite VII straight (similar as in Fig. 22c, d). Aedeagus long oval with anterior angles sub-rectangular; cones at apical orifice short; C : A ratio 0.16; sclerotised endophallus small; parameres elongate; curved in apical third; not divided into inner and outer lobe.
Etymology: The species name is the superlative of the Latin word *magnus* (meaning large) and refers to the large size.

*S. grandiconus* spec. nov.  
*um.lsid.zoobank.org:act:E5C8E789-05AC-405D-876C-29E45C95343B*  
Figs 35a–d: 48 J

**Type material:** male, holotype: Honduras: Santa Barbara, Mt. Santa Barbara, 11.5 km S & 5.6 km W Peña Blanca (14°57'N, 88°05'W), 1800 m elev., cloud forest litter, 20.6.1994, leg. R. Anderson (KNHM). Paratypes: Mexico, 1 female, Oaxaca, 40 km SW Valle Nacional, km 93 1900 m elev., oak forest leaf litter, Berlese, 26.7.1992, leg. R.S. Anderson #92-031 (KNHM); Honduras: 23 males, 26 females with same data as holotype (47 KNHM, 2 UIC); 16 males, 23 females, same region, habitat, and collector, but 1870 m elev., 24.8.1994 (37 KNHM, 2 UIC).

**Diagnosis:** *Somoleptus melanarius* is characterised by its long head with semi-circular posterior part. The parameres at the apical orifice of the aedeagus are relatively large and thick, only slightly smaller than in *S. grandiconus*. Both species are similar in the black colouration but *S. melanarius* is distinctly larger than 5.0 mm, whereas *S. grandiconus* is only 4.6 mm.

**Description:** Length: 5.0–5.4 mm. Colouration: Black, legs and antennae dark brown.  
Head: 0.92 mm long, 0.70 mm wide; eyes small, eyes not prominent; short; PS : E ratio 3.7; slightly convex; posterior angles combined with posterior margin semi-oval; interantennal furrows present; setiferous punctation moderately deep and sparse; on average, interstices between punctures as wide as diameter of punctures; anteriorly with narrow impunctate midline; surface without microsculpture; polished. Antennae with first antennomere as long as half-length of head; second and third antennomere elongate; combined as long as half-length of first antennomere; following antennomeres wider than longer; increasing in width; fourth antennomere 1.5 times as wide as long; tenth antennomere twice as wide as long; antennomeres 4–11 pubescent. Pronotum: 1.13 mm long, 0.67 mm wide; widest slightly behind anterior third; anteriad, convergent to neck; posteriad, approximately parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctation similarly deep and dense as on head; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.88 mm long, 0.88 mm wide; humeral and posterior angles rectangular; sides approximately parallel; posterior margin slightly retreated to suture; setiferous punctation deeper than on pronotum; on average, interstices as wide as diameter of punctures; surface without microsculpture; shiny. Abdomen with setiferous punctation finer than on elytra, but as dense; setae pointing posteriorly; base of segments with deep netlike microsculpture; apically without microsculpture; posterior margin of male sternite VII prominent; posterior margin of male tergite VII straight. Aedeagus oval with anterior angles sub-rectangular; cones at apical orifice broad; C : A ratio 0.29; sclerotised endophallus with numerous transverse lobes; parameres 0.6 times as long as central lobe; bilobed; outer lobe plate-like; inner lobe slender with few scattered short setae.

**Type material:** male, holotype: Mexico: Veracruz, 5.5 mi S Huatusco, and 4.8 mi W on microodus road, cloud forest, 5900 ft. elev., sifting litter at base of tree, 25.4.1977, leg. J.S. Ashe (FMNH). Paratypes: Mexico: 1 male, 2 females, Queretaro, Mpio. Pinal de Amoles, San Pedro Cancela (99°31.47'W, 21°07.29'N), 1620 m, 1750 m elev., sifted litter, mixed oak forest, 28.7., 29.7.2006, leg. P.J. Horsley #MEX1H06 015A (KNHM); same date but collector R. Anderson #MEX1A06-026; 2 females, Veracruz, 1.1 km S Jalapa, on Coatepec rd., under fungus bark, 1280 m elev., 12.7.1992, leg. J.S. Ashe #54 (KNHM); 2 males, 3 females, 2.3 km S Jalapa, 1320 m elev., leaf litter in ditch, 13.7.1992, leg. J.S. Ashe #65 (4 KNHM, 1 UIC); 1 female, Chiapas, Mpio. Tenejapa, Ojo de Agua (92°26.33'W, 16°49.06'N), mixed cloud/pine forest litter, 1800 m elev., 21.7.2003, leg. R. Anderson #MEX1A03 114 (KNHM); 1 female, 10 km W El Bosque, 1475 m elev., pine/cloud forest litter, 15.9.1992, leg. R. Anderson #92-103 (KNHM); 1 male, 4 females, 40 km SW Valle Nacional, km 93, 1900 m elev., oak forest leaf litter, Berlese, 26.7.1992, leg. R. Anderson, #92-131 (KNHM); 1 male, same region but km 85, 1650 m elev., trans/cloud forest leaf litter, Berlese, 26.7.1992, leg. R.S. Anderson #92-030 (KNHM); 1 female, Yerbabuena Reserve, 2.1 km NW Pueblo Nuevo, Solistahucan, 2100 m elev., cloud forest litter, 23.9.1992, leg. R.S. Anderson #92-114 (KNHM); 1 female, same region but (92°53.52'W, 17°1.00'N), 1950 m elev., oak/pine/liquidambar forest litter, 22.7.2003. leg. R. Anderson #MEX1A03 116 (KNHM); 1 male, 15.1 km N Bochil, 1690 m elev., pine/Liquidamber forest litter, 24.9.1992, leg. R. Anderson #92-116 (UIC); 1 female, 5.9 km E Bochil, 1300 m elev., riparian mesophytic forest litter, 15.9.1992, leg. R. Anderson #92-104 (KNHM); 1 male, Lagos de Montebello, Cinco Lagos, 1500 m elev., Liquidamber/ oak/pine forest litter, 22.9.1992, leg. R. Anderson #92-113 (KNHM); 1 female Mpio. Chalchihuitan, Cerros de Chalchihuitan (92°37.13'W, 16°59.20'N), cloud forest litter, 2050 m elev., 24.7.2003, leg. R. Anderson #MEX1A03 120 (UIC); 2 males, 3 females, 10 km W El Bosque, 1475 m elev., pine/cloud forest litter, 15.9.1992, leg. R. Anderson.
Irmler, U.: The Neotropical species of the genus Somoleptus Sharp, 1885

*Somoleptus* montanus spec. nov.

urn:lsid:zoobank.org:act:1CB5C136-E50A-4001-A42E-DDFE38450986

Figs 18a–d, 50 A

**Type material:** male, holotype: Venezuela: Trujilo, Paramo La Cristalina, Old Trujilo Rd. 9.7 (70°17.51’W, 9°21.21’N), 2400 m elev., elfin forest litter, 20.5.1998, leg. R. Anderson #VEN1A98 022D (KNHM). Paratypes: 2 females with same data as holotype (1 KNHM, 1 UIC); 1 female, Trujilo, 19 km Se Bocón, Páramo de Guaramaca (70°12’W, 9°21’N), 2950 m elev., bamboo litter, 4.3.1995, leg. R. Brooks, #42 (KNHM).

**Diagnosis:** Among the large species of more than 6.0 mm length with quadrate elytra, *S. montanus* can be distinguished from the similar *S. strigulata* by the small eyes. The similar species *S. strigulata* is known only from the island of Hispaniola and has still smaller eyes. Among the laevis-group, *S. montanus* is characterised by the broad uni-lobed parameres with central swelling.

**Description:** Length: 6.2 mm. Colouration: Black; legs and antennae light brown.

Head: 0.97 mm long, 0.81 mm wide; eyes small; not prominent; P : E ratio 5.9; postocular sides nearly parallel; posterior angles combined with posterior margin semi-circular; interantennal furrows weak; setiferous punctuation moderately dense and deep; on average, interstices between punctures as wide as or slightly wider than diameter of punctures; without impunctate midline; on Clypeus with small impunctate spot; surface with extreme weak isodiamic microsculpture; shiny. Antennae with first antennomere half-length of head; second and third antennomere 1.5 times longer than wide; combined slightly shorter than half-length of first antennomere; following antennomeres wider than long; fourth antennomere nearly twice times as long as wide; tenth slightly more than twice times as long as wide; antennomeres 4–11 pubescent. Pronotum: 0.82 mm long, 0.54 mm wide; widest at anterio third; anteriad, continuously convergent to neck; posteriad, slightly convergent to sub-rectangular posterior angles; posterior margin slightly convex; setiferous punctuation sparser and less deep than on head; on average, interstices between punctures as wide as on head and antennomeres; posterior angles slightly divergent; posterior margin more or less parallel; posterior angles combined with posterior margin semi-circular; interantennal furrows weak; setiferous punctuation moderately dense and deep; on average, interstices between punctures as wide as or slightly wider than diameter of punctures; without impunctate midline; on Clypeus with small impunctate spot; surface with extreme weak isodiamic microsculpture; shiny. Antennae with first antennomere half-length of head; second and third antennomere longer than wide; combined half-length of first antennomere; antennomeres 4 to 10 wider than of first antennomere; antennomeres 4–11 pubescent. Elytra: 0.64 mm long, 0.59 mm wide; humeral and posterior angles sub-rectangular; sides posteriad slightly divergent; posterior margin slightly retreated to suture; setiferous punctuation as dense and deep as on vertex; on average, interstices between punctures as wide as diameter of punctures; surface without microsculpture; shiny; Abdomen with setiferous punctuation slightly denser than on elytra, but finer; setae pointing posteriad; at base of segments with deep transversely reticulate microsculpture; apical part of segments without microsculpture; moderately shiny; posterior margin of male sternite VII trianliqually prominent; posterior margin of male tergite VII straight (similar as in Fig. 21 c, d). Aedeagus oval with anterior angles sub-rectangular; cones at apical orifice moderately large; C : A ratio 0.31; sclerotised endophallus narrow, u-shaped; parameres divided in slender inner lobe and plate-like outer lobe; inner lobe with row of setae on inner face.

**Etymology:** The species is named after the country where it was collected.

*S. montanus* irmleri spec. nov.

urn:lsid:zoobank.org:act:1CB5C136-E50A-4001-A42E-DDFE38450986

Figs 18a–d, 50 A

**Type material:** male, holotype: Venezuela: Hidalgo, 13.1 km NE Jacala, 1760 m elev., montane oak forest, Berlese, 9.6.1987, leg. R. Anderson; 2 females, Oaxaca, 40 km SW Valle Nacional, km 93, 1900 m elev., oak forest leaf litter, Berlese, 26.7.1992, leg. R. Anderson #92-031 (KNHM); Guatemala: 1 female, Quiche, Reserva de Recuerdas (-90°58.87, 15.45220), 1398 m elev., sifted evergreen forest litter, 16.6.2015, leg. R. Anderson #GUAT1A15 152 (KNHM); Panama: 1 female, El Copé (80°35’W, 8°37’N), 730 m elev., flight intercept trap, 20.5.–7.6.1995, leg. J. Ashe #140 (KNHM); 1 female, Quetzaltenango, 12.5. km SE Zunil (91°27.5’W, 14°41.7’N), 1520 m elev., berlesate oak forest litter, 20.6.1993, leg. Anderson & Ashe #93-9B (KNHM).

**Diagnosis:** The species can be distinguished from the other species of the longicollis-group by the dark coloration combined with the triangular shape of the head and the small eyes. The aedeagus has no conspicuous characters with intermediate large cones and parameres.

**Description:** Length: 4.8 mm. Colouration: Totally black; legs and antennae light brown.

Head: 0.67 mm long, 0.56 mm wide; eyes moderately large; PS : E ratio 4.2; postocular sides divergent to posterior sub-rectangular angles; posterior margin approximately straight; setiferous punctuation deep and dense; on average, interstices between punctures less wide than diameter of punctures; on anterior vertex denser than on posterior vertex; narrow midline impunctate; surface without microsculpture; polished. Antennae with first antennomere slightly longer than half-length of head; second and third antennomere 1.5 times longer than wide; combined slightly shorter than half-length of first antennomere; following antennomeres wider than long; fourth antennomere nearly twice times as long as wide; tenth slightly more than twice times as long as wide; antennomeres 4–11 pubescent. Pronotum: 0.82 mm long, 0.54 mm wide; widest at anterior third; anteriad, continuously convergent to neck; posteriad, slightly convergent to sub-rectangular posterior angles; posterior margin slightly convex; setiferous punctuation sparser and less deep than on head; on average, interstices between punctures as wide as on head and antennomeres; posterior angles slightly divergent; posterior margin more or less parallel; posterior angles combined with posterior margin semi-circular; interantennal furrows weak; setiferous punctuation moderately dense and deep; on average, interstices between punctures as wide as or slightly wider than diameter of punctures; without impunctate midline; on Clypeus with small impunctate spot; surface with extreme weak isodiamic microsculpture; shiny. Antennae with first antennomere half-length of head; second and third antennomere longer than wide; combined half-length of first antennomere; antennomeres 4 to 10 wider than of first antennomere; antennomeres 4–11 pubescent. Elytra: 0.64 mm long, 0.59 mm wide; humeral and posterior angles sub-rectangular; sides posteriad slightly divergent; posterior margin slightly retreated to suture; setiferous punctuation as dense and deep as on vertex; on average, interstices between punctures as wide as diameter of punctures; surface without microsculpture; shiny; Abdomen with setiferous punctuation slightly denser than on elytra, but finer; setae pointing posteriad; at base of segments with deep transversely reticulate microsculpture; apical part of segments without microsculpture; moderately shiny; posterior margin of male sternite VII trianliqually prominent; posterior margin of male tergite VII straight (similar as in Fig. 21 c, d). Aedeagus oval with anterior angles sub-rectangular; cones at apical orifice moderately large; C : A ratio 0.31; sclerotised endophallus narrow, u-shaped; parameres divided in slender inner lobe and plate-like outer lobe; inner lobe with row of setae on inner face.
Etymology: The species name is derived from the same Latin word (meaning montane) and refers to the high elevation, where it was collected in Venezuela.

Somoleptus nitidus (Sharp, 1876)
Figs 15 a–d, 50 E

Leptacinus nitidus Sharp, 1876: 204

Type material examined: male, holotype: Brazil, Tefé (Ega) without more information (BMNH).

Diagnosis: Unfortunately, only the male type specimen was in the collections examined.

Description: Length: 4.0 mm. Colouration: Dark brown; anterior half of pronotum slightly lighter, posterior angles of elytra still lighter; nearly yellow.

Head: 0.72 mm long, 0.54 mm wide: eyes large; slightly prominent; postocular sides nearly parallel; PS: E ratio 2.4; posterior angles widely rounded; composed with posterior margin nearly semi-circular; interantennal space at anterior margin extremely short; divided by triangular process; on both sides of process with deep groove; setiferous punctuation sparse and moderately weak; interstices between punctures three to four times as wide as diameter of punctures; surface without microsculpture; polished. Antennae with first antennomere two third of diameter of punctures; surface without microsculpture; polished. Elytra: 0.86 mm long, 0.77 wide; humeral angles approximately rectangular; sides slightly divergent to rectangular posterior angles; posterior margin slightly convexly curved with incision at suture; setiferous punctuation deeper and larger than on head and pronotum; interstices between punctures approximately as wide as diameter of punctures; surface without microsculpture; polished. Abdomen with setiferous punctuation as dense as on elytra but much finer; weak microsculpture transversely reticulate; surface shiny; male sternite VII deeply emarginate; on the inner edge of emargination with longitudinal process; male sternite VII straight; only with slight central projection. Aedeagus long oval; pair of cones at inner side of apical orifice; weak and with fine spines or hairs; C : A ratio 0.17; parameres broad and long; two third as long as central lobe; curved; in ventral view, shape like a forceps; short apical part parallel; in lateral view shape more triangular; in central part with numerous sensillae.

Somoleptus obscurus Sharp, 1885
Figs 36a, b; 47 D

Type material examined: female, holotype: Panama: Peña Blanca, 3000–4000 ft. elev., leg. Champion (BMNH).

Additional material examined: Mexico: 1 male, Oaxaca, 6 mi S Valle Nacional, 2000 ft elev., leaf litter, 19.5.1971, leg. S. Peck (FMNH); 1 male, Chiapas, 6.6 mi W El Bosque, 4800 ft elev., cloud forest pine litter, Berlese, 29.8.1973, leg. A. Newton (FMNH); Guatemala: 1 female, Alta Verapaz, nr. Purulha (Old Salama Rd.) (-90.2995, 15.2405), 1640 m elev., sifted open oak forest litter, 20.9.2008, leg. R. Anderson #LLAM08 RSA141 (KNHM); Costa Rica: 1? (dest.) Alajuela, E.B. San Ramon, R.B. San Ramon, 27 km N & 8 km W San Ramon (84°35.3'W, 10°13.3'N), 1120 m elev., wet montane forest litter, 29.6.–7.1999, leg. R. Anderson #CR1A99-109C (KNHM); Puntarenas, 1 female, San Vito, Est. Biol. Las Alturas, 1500 m elev., May 1992, leg. P. Hanson (KNHM); 1 female, Monte Verde Reserve (trail near lab) flight intercept trap, 1.6.1993, leg. C. Michalski (KNHM); 1 female, Monte Verde, Rio Guacimal, 1400 m elev., washing biophytes on rocks, 15.5.1989, leg. J. Ashe, R. Leschen #202 (KNHM); Panama: 1 female, Bocas del Toro, Fortuna/Chiriquí, Grand road (8°47'N, 82°11'W), 500 m elev., tropical wet forest, sifting litter, 16.–18.7.1987, leg. D.M. Olson (FMNH); 1 female, Cerro Campana, 3200 ft elev., Berlese, cloud forest, 14.–23.2.1976, leg. A. Newton (FMNH); 1 male, 2 females, Darién, Cana Biological Station, Serrania de Pirre (77°41.6’W, 7°45’N), 1200, 1450 m elev., flight intercept trap, 4.–7.6., 7.–9.6.1996, leg. J. Ashe, R. Brooks #PANI1AB96 109 (2 KNHM, 1 UIC); 1 female same data except 1560 m elev. 5.–6.6.1996, leg. Gillogly (KNHM);
1 female, Colon, Parque Nac. Soberania, Pipeline Rd. km 5.3 (79°45'W, 9°07'N), 40 m elev., flight intercept trap, 29.-31.5.1995, leg. J. Ashe #086 (UIC); Venezuela: 1 male, Aragua, Rancho Grande Biological Station La Cumbre (67°41.11'W, 10°21.15'N), 1450 m elev., cloud forest litter, 12.5.2008, leg. R. Anderson #VEN1A98 001F (KNHM); 1 female, same date except 1550 m elev., 14.5.2008 (KNHM); 2 males, same region, but Pico Periquitos (67°41.0'W, 10°21.0'N), 1300 m elev., cloud forest litter, 13.5.1998, leg. R. Anderson #VEN1A98 005F (1 KNHM, 1 UIC); 9 females, 3 males, Lara, La Sanare, 10 km SE, Yacambu N.P. (69°38.57'W, 9°41.51'N), 1500 m, 1650 m, 1790 m, 1800 m, 1850 m elev., cloud forest litter, 16.5., 17.5., 1.6.1998, leg. R. Anderson #VEN1A98 056D (10 KNHM, 2 UIC); 1 female, same date except 1510 m elev., flight intercept trap, 18.5.-1.6.1998 (KNHM); Colombia: 2 females, Magdalena, 2 km NW San Pedro (74°03'W, 10°55'N), 1200 m elev., leaf litter, 16.8.1985, leg. J. Longino (KNHM); 1 female, Cañoavera, 200 m elev., leaf litter, 11.8.1985, leg. J. Longino (KNHM).

Diagnosis: Unfortunately, the single type specimen is a female. Males were only found among the specimens from Venezuela. Thus, a clear differentiation from the similar S. obsoletus, S. sparsus and S. pecki is difficult. It seems that S. obscurus is larger in size and the elytra are shorter than in the three similar species. It can be distinguished from S. obsoletus by the distinct sub-rectangular angles of the head and from S. pecki by the larger eyes. In contrast to S. sparsus, the punctuation of the head is much denser. Whereas interstices between punctures in S. obscurus are as wide as diameter of punctures, interstices between punctures in S. sparsus are nearly twice as wide as diameter of punctures. The aedeagi of all four species are very similar. Parameres are straight in S. obscurus and S. pecki, but curved in S. obsoletus and S. sparsus.

Description: Length: 4.4 mm. Colouration: Blackish; legs and antennae light brown. Head: 0.69 mm long, 0.52 mm wide; eyes large; PS : E ratio 2.4; postocular sides nearly parallel; posterior angles combined with posterior margin nearly semi-circular; setiferous punctuation dense and dense; on average, interstices as wide as diameter of punctures; moderately narrow; impunctate midline on posterior vertex absent; surface without microsculpture; polished. Antennae with first antennomere slightly shorter than half-length of head; antennomeres 2–3 longer than wide; combined slightly shorter than half-length of first antennomere; antennomeres 4–10 wider than long and increasing in width; antennomere 4, 1.5 times wider than long; antennomere 10 twice as wide as long; antennomere 4–11 pubescent. Pronotum: 0.76 mm long, 0.49 mm wide; widest shortly in front of middle; anteriad, continuously narrowed to neck in smooth convex curve; posteriad nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation as dense and deep as on head; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.79 mm long, 0.68 mm wide; humeral and posterior angles sub-rectangular; sides nearly parallel; posterior margin slightly convex; shortly retrated at suture; setiferous punctuation as dense and deep as on head and pronotum; surface without microsculpture; shiny. Abdomen with setiferous punctuation much denser, but finer than on elytra; setae pointing posteriad; posterior margin of male sternite VII with triangular process (as in Fig. 21c, d); posterior margin of male tergite VII straight. Metatibia with two subapical setae. Aedeagus oval with sub-rectangular anterior angles; cones at apical orifice moderately short; $C : A$ ratio 0.19; parameres divided into two lobes; a plate-like outer lobe and a straight slender inner lobe; approximately half as long as total length of aedeagus; both lobes nearly equal in length; inner lobe with row of partly long setae at inner face.

Somooleptus obsoletus SHARP, 1885

Figs 28a, b; 47 E

Somooleptus obsoletus SHARP, 1885: 496

Type material examined: male, holotype; Guatemala: near the city, Aceituno, leg. Champion (BMNH).

Additional material examined: Mexico: 1 female, San Luis Potosi, 11 mi W El Naranjo, 3200 ft elev., litter Liquidambar hollow trunk, 25.6.1973, leg. A. Newton (FMNH); 1 female, same region, 14 mi W Xilitla, 4800 ft elev., on fungi, 20-28.6.1971, leg. A. Newton (FMNH); 1 male, Oaxaca, 6 mi S Valle Nacional, 2000 ft elev., leaf litter, 19.5.1971, leg. S. Peck (FMNH); 1 male, Chiapas, 9.7 mi S Solusuchiapa, Hwy. 195, 530 m elev., montane tropical litter along stream, sifting, 5.5.1977, leg. J.S. Ashe (FMNH); 2 males, 10 km W El Bosque, 1475 m elev., pine/cloud forest litter, 15.9.1992, leg. R.S. Anderson #92-103 (1 KNHM, 1 UIC); 3 males, 8.9 km E Rayon, 1500 m elev., cloud forest litter, 19.9.1991, leg. R. Anderson #91-106 (2 KNHM, 1 UIC); 1 female, Hidalgo, 66.6 mi SW Chapalhuacán, 3900 ft elev., cloud forest leaf litter, Berlese, 5.7.1976, leg. ? (FMNH); 1 female, Tamaulipas, La Presita, Cañon de Coyote, Municipio Tula, 1900 m elev., in leaf litter, 16.3.1987, leg. P. Kovarik, R. Jones & R. Trevine (FMNH); 1 female Guerrero, 10.3 km SW Filo de Caballo, 2700 m elev., oak/pine/fir forest leaf/log litter, 15.7.1992, leg. R. Anderson #92008 (KNHM); Guatemala: 1 female, Zacapa, Matasano, ESE Zacapa (-89.42022 W, 14.92799 N), 1325 m elev., sifted cloud forest litter, 21.6.2015, leg. R. Anderson #GUATIA15 161 (KNHM); Honduras: 3 females, Yoro Dept., P.N. Pico Pijol (87°37.6'W, 15°09.4'N), 1300 m elev., upper montane forest litter, 11.5.2002, leg. R. Anderson (KNHM); Costa Rica: 1 male, 1 female, Puntarenas, Las Alturas Biol. Stat. (82°50.01'W, 8°56.17'N), 1660 m
elev., flight intercept trap, 31.5.-3.6.2004, leg. J.S. Ashe, Z. Falin, I. Hinojosa #CR1AFH04 094 (2 KNHM, 1 UIC); 1 male, Altamira Biol. Stat. (83°00.49'W, 9°01.76'N), 1510-1600 m elev., flight intercept trap, 4.-7.6.2004, leg. J.S. Ashe, Z. Falin, I. Hinojosa #CR1AFH04 144 (KNHM); 1 male, San Vito, Estac. Biol. Las Alturas, Alturas, 2 km NE (82°50.4'W, 8°58.26'N), 1720 m elev., Berlese leaf litter, 21.6.1998, leg. R. Anderson #CR1A98 106 (KNHM); 1 male, same region but 1500 m elev., Jun. 1992, leg. P. Hanson (KNHM); 1 male, Monteverde, 1570 m elev., Berlese, 16.5.1989, leg. J. Ashe, R. Brooks, R. Leschen (KNHM); 1 male, same region but Boehme house, 1400 m elev., flight intercept trap, 15.5.1989, leg. J. Ashe, R. Leschen, R. Brooks #201 (KNHM); 1 female, Reserva Biologica Carara (84°36'W, 9°47'N), 500 m elev., litter sample, 25.-26.7.1985, leg. J. Longino #606-5 (KNHM); Panama: 1 male, 2 females, Chiriqui, nr. Nueva California; Finca Palo Santo, 4900 ft elev., army ants?, 6.3.1959, leg. H.S. Dybas (FMNH); 7 females, Escopete (N), along Rio Ecopete, 860 m elev., Cloud forest, 19.9.1991, leg. R. Leschen, R. Brooks #PAN1AB96 112 (KNHM); Columbia: 1 male, Magdalena, 2 km NW San Pedro (74°03'W, 10°55'N), 1200 m elev., flight intercept trap, 16.8.1985, leg. J. Longino #811-5 (KNHM).

Diagnosis: The species closely resembles *S. obscurus* in dense punctuation and sexual characters. It can be separated from that species by the smaller size (3.8 mm), surface covered with weak microsculpture, elytra having a yellow apical margin. At the aedeagus, the outer lobe of the parameres seems to be slightly shorter than in *S. obscurus* and with fewer setae at inner edge of the slender inner lobe.

Description: Length: 3.8 mm. Colouration: Blackish brown; posterior margin of elytra yellowish; legs and antennae yellow.

Head: 0.65 mm long, 0.49 mm wide; eyes large, PS : E ratio 2.9; postocular sides slightly curved; postocular angles combined with posterior margin nearly semi-circular; setiferous punctuation deep and dense; on average, interstices between punctures as wide as diameter of punctures; moderately narrow impunctate midline absent on posterior vertex; surface partly with micro-punctuation; moderately shiny. Antennae with first antennomere as long as half-length of head; second and third antennomeres longer than third; third slightly shorter than second; combined slightly longer than half-length of first antennomere; following antennomeres wider than long and increasing in width; fourth antennomere twice as wide as long; tenth 2.5 times as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.80 mm long, 0.48 mm wide; widest distinctly behind anterior third; anteriad, convergent to neck; posteriad, nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation as dense and deep and as on head; wide midline impunctate; surface with weak isodiametric microsculpture; moderately shiny. Elytra: 0.79 mm long, 0.67 mm wide; humeral and posterior angles sub-rectangular; sides approximately parallel; posterior margin convex; deeply reticulated to suture; setiferous punctuation as dense and deep as on pronotum; surface with weak isodiametric microsculpture; moderately shiny. Abdomen with setiferous punctuation as dense and deep as on elytra; setae pointing posteriad; surface with distinct transversely reticulate microsculpture; moderately matted; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergites VII straight (as in Fig. 21c, d). Metatibia with two subapical ctenidia. Aedeagus oval with sub-rectangular anterior angles; C : A ratio 0.25; sclerotised endophallus narrow; covered by minute teeth; in basal half with two torsions; in apical half straight; parameres divided in slender inner lobe and broad outer lobe; inner lobe with row of five setae at inner face.

*S. melanarius* also resembles that of *S. grandiconus* but those of *S. melanarius* are much longer with 5.0–5.4 mm.

**Type material**: male, holotype: Mexico: Chiapas, 8.9 km E Rayon, 1500 m elev., cloud forest litter, 19.9.1991, leg. R. Anderson #91-109 (KNHM). Paratypes: 6 males, same data as holotype (5 KNHM, 1 UIC).

Diagnosis: The species is unique within the genus by the characteristic shape of the head with convergent postocular sides. The long cones of the aedeagus resemble those of *S. grandiconus* but the shape of the head is totally different between these two species. The aedeagus also resembles that of *S. melanarius*, but *S. melanarius* is much longer with 5.0–5.4 mm.

Description: Length: 3.7 mm. Colouration: Blackish to dark brown; abdomen slightly lighter brown; legs and antennae light brown.

Head: 0.63 mm long, 0.48 mm wide; eyes large, prominent; PS : E = 1.7; postocular sides convergent to sub-rectangular posterior angles; interantennal furrows irregular; weak; setiferous punctuation deep and moderately dense; on average, interstices between punctures as wide as diameter of punctures; impunctate midline indistinct; partly absent; surface without microsculpture; shiny. Antennae with first antennomere distinctly longer than half-length of head; antennomeres 2 and 3 longer than wide; combined half as long as first antennomere; antennomeres 4–10 wider than long; increasing in width; approximately twice as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.75 mm long, 0.43 mm wide; widest slightly in front of anterior third; anteriad, conically narrowed to neck; posteriad, nearly parallel;
posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation dense but weak; irregular line of punctures adjacent to wide impunctate midline with 15 to 16 punctures; surface without microsculpture; shiny. Elytra: 0.80 mm long, 0.69 mm wide; humeral and posterior angles sub-rectangular; sides slightly divergent posteriad; posterior margin convexly curved; deeply retracted to suture; setiferous punctuation dense and moderately deep; on average, interstices between punctures as wide as diameter of punctures; on posterior vertex partly denser; between eyes with impunctate midline; surface without microsculpture; shiny. Antennae with first antennomere slightly longer than half-length of head; antennomeres 2 and 3 longer than wide; combined half-length of first antennomere; antennomeres 4 to 10 wider than long and increasing in width; fourth antennomere 1.5 times as wide as long; tenth antennomere twice as wide as long; antennomeres 4–11 pubescent. Pronotum: 1.09 mm long, 0.66 mm wide; widest at anterior third; anteriad narrowed to neck in smooth convex curve; posterial nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex with straight centre; setiferous punctuation as deep and dense as on head but with wide impunctate midline; irregular line adjacent to midline with 22 to 23 punctures; surface without microsculpture; shiny. Elytra: 0.67 mm long, 0.73 mm wide; without humeral angles; posterior angles rectangular; posterior margin deeply retracted to suture; setiferous punctuation as deep and dense as on pronotum; surface with isodiametric ground-sculpture; less shiny than head and pronotum. Abdomen with similar setiferous punctuation as on elytra but deeper microsculpture; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergite VII slightly convex (similar as in Fig. 21c, d). Aedeagus oval with sub-rectangular anterior angles; cones large; C: A = 0.41; endophallus transparent; weakly covered by short teeth; with few torsions; parameres twice as long as cones; divided into two lobes; outer lobe broad; as long as cones; inner lobe slender; slightly longer than outer lobe; in apical half with row of 5 paired setae.

**Etymology:** The species name is derived from the Latin word *oculus* (meaning eye) and refers to the large prominent eyes of the species.

_Somoleptus ovatus* spec. nov.
urn:lsid:zoobank.org:act:901264F7-4008-4083-8E90-FC364B7CF3C1

**Type material:** male, holotype: Costa Rica: male, San José/Cartago, km 55 Int., Amer. Hwy., 3 km S Empalme (83°57’W, 9°42.3’N), 2350 m elev., Berlese, forest litter, 8.6.1997, leg. R. Anderson #CR1A97 008B (KNHM). Paratype: 1 female, Cartago, 2.0 km E Villa Mills (9°34’N, 83°41.5’W), 2750 m elev., oak forest litter, 15.2.1998, leg. R. Anderson, #CR2A98 002 (KNHM); 1 male, Chiriqui, 20 km N Gualaca, Finca La Suiza (82°12.0’W, 8°39.0’N), oak forest litter, 1450-1600 m elev., 11.6.1995, leg. R. Anderson #PAN2A95 18E (UIC); 1 female, 20.4 km N San Felix (81°46.0’W, 8°22.0’N), 950 m elev., Berlese forest litter, 8.6.1995, leg. R. Anderson #PAN2A95 09A (KNHM); 2 females, 5.9 km N Cerro Punta, Parc. Nac. Volcan Baru (82°34.0’W, 8°22.0’N), 2400 m elev., bamboo forest litter, 14.6.1995, leg. R. Anderson #PAN2A95 21C (KNHM).

**Diagnosis:** Among the species with short eyes and elytra, *S. ovatus* resembles *S. brunneus* and *S. longiceps* in size and colouration. The separating characters are described under *S. longiceps*.

**Description:** Length: 5.3 mm. Colouration: Dark brown; legs and antennae lighter brown.
be identified by the long hind legs with extremely long metatarsi.

**Description:** Length: 4.6 mm; Colouration: Black, legs and antennae yellow.

Head: 0.75 mm long, 0.59 mm wide; eyes moderately small; PS : E ratio 4.3; postocular sides slightly divergent posterior; posterior angles combined with posterior margin semi-circular; setiferous punctation deep and dense; on average interstices between punctures as wide as diameter of punctures; narrow midline imprecipitate; on posterior vertex midline absent; surface without microsculpture; polished. Antennae with first antennomere slightly longer than half-length of head; antennomere 2 and 3 longer than wide; equal in length; 1.5 times as long as wide; combined as long as half-length of first antennomere; following antennomeres wider than long and increasing in width; twice as wide as long; all antennomeres pubescent. Pronotum: 0.85 mm long, 0.51 mm wide; widest shortly in front of middle; anteriad, continuously convergent to neck; posterior, approximately parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctation as dense and deep as on head; midline impunctate; surface partly with isodiametric microsculpture; moderately matt. Abdomen with setiferous punctation as dense as on head, but much denser; on average, interstices between punctures as wide as diameter of punctures; surface partly with isodiametric microsculpture; moderately matt. Abdomen with setiferous punctation finer than on fore-body but similarly dense; surface at base of segments with transverse microsculpture; apically without microsculpture; shiny. Metatibia with three subapical ctenidia; metatarsi combined nearly as long as metatibia.

**Somoleptus parvulus** Sharp, 1885

Figs 26a, b; 47 G

**Somoleptus parvulus** Sharp, 1885: 496

**Type material examined:** 2 females, syntypes: Guatemala: Vera Paz, San Geronimo, leg. Champion; Panama, Los Remedios, leg. Champion (BMNH).

**Additional material examined:** Mexico: 1 female, Chiapas, 4.7 km N Finca Prucia, 24.6 km S Atlantinango de las Pas, 1050 m elev., oak-pine-montane trop. transition, litter along stream, 3.7.1979, leg. J. Ashe (FMNH); 1 female, Truqui, Fry coll., (FMNH); 4 males, 1 female, Sierra Morena (-93.6053, 16.1595), 1360 m elev., mesophil forest, 12.5.2008, leg. Anonymous, #LLAM0839273 (3 KNHM, 1 UIC); 1 male, 5.9 km E Bochil, 1300 m elev., riparian mesophytic forest litter, 15.9.1992, leg. R. Anderson (KNHM); 1 male, Nahá (-91.5861, 16.9802) 860 m elev., mesophil forest, sifted leaf litter, 12.6.2008, leg. ? #LLAM0A0 MGB856 (KNHM); 1 male, 10 km W El Bosque, 1475 m elev., pine/cloud forest litter, 15.9.1992, leg. R. Anderson (KNHM); 1 female, 19.3 km E Santa Isabel, at Rio Zoyalténcio, fig-fall and litter, 9.6.1991, leg. J. Ashe (KNHM); 1 male, 6 km S Ocosingo, 1400 m elev., wet oak/pine forest litter, 16.9.1992, leg. R.S. Anderson (KNHM); 1 female, Sierra Morena (-93.6053, 16.1595), 1360 m elev., mesophil forest, sifted leaf litter, 12.5.2008, leg. ?, #LLAM0A0 Wm-A-01-1 (KNHM); 1 female, Lagos de Montebello, Cinco Lagos, 1500 m elev., Liquidamber/oak/pine forest litter, 22.9.1992, leg. R.S. Anderson, #92-113 (KNHM); 1 male, Hidalgo, 13.1 km NE Jalaca, 1760 m elev., montane oak forest, Berlese, 9.6.1987, leg. R. Anderson (KNHM); 1 male, Hidalgo, 13.1 km NE Jalaca, 1760 m elev., montane oak forest, 9.6.1987, leg. J. Anderson (KNHM); 1 male, 55 km NE Jalaca, 1190 m elev., Berlese, cloud for. litter, 4.6.1987, leg. R. Anderson (KNHM); 1 male, Guerrero, 78.5 km N jct. Rte. 200, on Re 134 to Ciudad Altamirano, 1770 m elev., leaf litter at cliff base and in ravine, 30.7.1992, leg. J.S. Ashe, H. Frania (KNHM); 1 male, Veracruz, 3.5 km S Jalapa, 1400 m elev., sifted leaf litter, 27.5.1991, leg. J. Ashe (KNHM); 1 female, same region, habitat, and collector, but 1370 m elev., 26.5.1991 (KNHM); 1 female, San Louis Potosi, 2.5 km W unpaved rd. at El Limon, 15.2 km N, 200 m elev., litter, 7.7.1990, leg. J. Ashe, K.J. Ahn, R. Leschen (KNHM); Guatemala: 2 females, Suchitepéquez, 5 km S Vol. Atitlán (-91.18815, 14.54074), 1400 m elev. leaf litter cloud forest, sifted, 18.6.2009, leg. Anonymous #LLAM0A0 Wm-B-09-2-07 (KNHM); 1 male, same data except Ref. Quetzal, 1660 m elev., wet montane forest, flight intercept trap, 14.-18.11.2016, leg. Z.H. Falin, F. Carillo #GUAT1F16 016.5 (KNHM); 1 female, same data but cloud forest, flight intercept trap, 16.-18.2015 #GUAT1F15 161 (KNHM); 1 male, Quetzaltenango, 12.5 km SE Zunil (91°27.5’W, 14°41.7”N), 1520 m elev., berleseate oakleaf litter, 20.6.1993, leg. Anderson & Ashe (KNHM); Honduras: 1 female, Lempira, 13.1 km NE & 7.3 km E Gracias, Mt. Puca (88°31’W, 14°41’N), 1600 m elev., liquidambar litter, 18.6.1994, leg. R. Anderson (KNHM); 2 females, Francisco Morazán, 7.6 km N Guairnaca (86°49’W, 14°36”N), 1030 m elev., pine/oak/liquidambar litter, 26.6.1994, leg. R. Anderson (KNHM); 1 female, Olancho La Muralla, 14 km N La Union (86°42’W, 15°06’N), 1450 m elev., wet montane evergr. Forest, Berlese, 16.-17.8.1994, leg. R. Anderson (KNHM); 1 male, Atlantida, Yaruca, 9 km S (86°40’W, 15°35’N), 950 m elev., montane rainforest leaflitter, 2.1.2008, leg. P.S. Ward #LLAM0A0 PSW16029 (KNHM); Nicaragua: 1 male, Matagalpa, Dept., 16 km N Matagalpa (85°56.1’W, 13°02.7”N), 1385 m elev., montane secondary forest litter, 22.5.2002, leg. R. Anderson #RSA2002-029 (KNHM); 1 female, Jinotega, RN Cerro Kilambé (-85.69785, 13.5541), 1310 m elev., Malaise trap, pasture/cloud forest edge,
22-26.5.2011, leg. Anonymus #LLAMA11 Ma-D-05-1-01 (KNHM); Costa Rica: 1 female, Rio Virililo, Feb. 1935, leg. A. Bierig (BMNH); male, San José, 1937, leg. A. Bierig (BMNH); 1 male, Puntarenas, Monte Verde, 1400 m elev., in fungal mat, 12.5.1989, leg. J. Ashe, R. Brooks, R. Leschen (KNHM); 1 female, same region and collectors, but leaf litter & fruit fall, 1400 m elev., 5.5.1989 (KNHM); 1 female, 1570 m elev., berlese, 16.5.1989 (KNHM); female, 1240 m elev., 10.5.1989 (KNHM); 1 female, same region, but trail near lab, flight intercept trap, 30.5.1993, leg. C. Michalski (KNHM); 1 female, same region, but Monte's woods, sifting, May 1992, leg. S. Lingafelter (KNHM); 1 male, Est. Biol. Las Alturas, 2 km NE Alturas (82°50.01'W, 8°56.56'N), 1520 m elev., upper montane cloud forest trans. litter, 10.7.1999, leg. R. Anderson #CR1A99-126A (KNHM); 1 female, 11 km SW Est. Biol. Las Cruces (83°01.50'W, 8°46.43'N), 1450 m elev., wet cloud forest litter, 9.7.1997, leg. R. Anderson (KNHM); 1 male, same region but (82°57.58'W, 8°47.14'N), 1330 m elev., Odontomachus ant refuse pile, 29.5.2004, leg. J.S. Ashe, Z. Falin, I. Hinojosa #CR1AFH04 031 (KNHM); 1 female, Puntarenas, Monteverde's Woods, 1550 m elev., Bromeliads, 21.5.1989, leg. J. Ashe, R. Leschen, R. Brooks, #335 (KNHM); 1 female, same region and collectors, but 1520 m elev., army ants pile, 26.5.1989, #510 (KNHM); 1 female, same region and collectors, but 1240 m elev., Berlese, upper streambed, (83°00.49'W, 9°01.76'N), 1510-1600 m elev., pyrethrum fogging, moss-covered clay bank, 7.6.2004, leg. J.S. Ashe, Z. Falin, I. Hinojosa #CR1AFH04 151 (KNHM); 1 male, Alajuela, E.B. San Ramon, R.B. San Ramon, 27 km N & 8 km W San Ramon (84°35.30'W, 10°13.30'N), Berlese forest litter, 950 m elev., 15.6.1997, leg. R. Anderson (KNHM); Panama: 1 male, 3 females, Cerro Campana, 3200 ft elev., Berlese, cloud forest litter, 14.-23. Feb. 1976, leg. A. Newton (FMNH); 1 female, Chiriqui, Prov. Qda, Laguna, nr. San Felix, 725 m elev., litter, on sand, pocket S. bank, 19.1.1981, leg. W. Suter (FMNH); 1 female, 24 km W El Hato del Volcan, 3800 ft elev., Berlese, cloud forest leaf litter, 26.-27.6.1976, leg. A. Newton (FMNH); 4 females, 2 km S Cuarnavaca, Camp. Rincon Vly, 750 m elev., litter on semi-cleared hillside between rock & log, 16.1.1981, leg. W. Suter (FMNH); 1 female, Bocas del Toro, Qda. Gato, 1300 m elev., litter, 21.1.1981, leg. W. Suter (FMNH); 1 female, 20 km N Gualaca, Finca La Suiza (82°12.0’W, 8°39.0’N), 1200 m elev., oak forest litter, 10.6.1995, leg. Anderson (KNHM); 1 male, 1 female, Darién, Estacion Ambiente Cano, Cerro Pirre (77°41.6’W, 7°45.2’N), 1450 m elev., cloud forest litter, 6.6.1996, leg. R. Anderson #PAN2A96-112C (KNHM); 1 female, same region but cloud forest transition litter, 6.6.1996, leg. R. Anderson #PAN2A96 96-113 (KNHM).

**Diagnosis:** The species resembles *S. obsoletus* in its small size. It is even smaller than that species. In *S. parvulus*, the elytra are shorter than the pronotum and the yellow posterior margin is absent or very small, while they are as long as the pronotum and the yellow margin is broader in *S. obsoletus*. Moreover, the cones at the apical orifice are distinctly longer, one third as long as total aedeagus, whereas they are only one fourth as long as the aedeagus in *S. obsoletus*.

**Description:** Length: 3.2 mm. Colouration: Dark brown; pronotum slightly lighter brown; elytra blackish-brown; legs and antennae yellow.

Head: 0.64 mm long, 0.54 mm wide; eyes large, PD : E ratio 2.5; postocular sides slightly divergent to widely rounded posterior angles; posterior margin slightly convex with straight central part; setiferous punctation deep and dense; on average, interstices between punctures as wide as diameter of punctures; narrow impunctate midline absent on posterior vertex; surface without microsculpture; polished. Antennae with first antennomere half-length of head; second antennomere longer than wide; third nearly quadrature; following antennomeres wider than long; approximately 2.3 times as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.82 mm long, 0.53 mm wide; widest behind anterior third; narrowed to neck in smooth convex curve; posteriad, sides nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation as deep and dense as on head; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.76 mm long, 0.72 mm wide; humeral and posterior angles sub-rectangular; posteriad, sides slightly divergent; posterior margin triangularly retreated to suture; setiferous punctuation as dense as on head, but slightly finer; surface with indistinctly weak microsculpture; shiny. Abdomen with denser setiferous punctuation than on elytra; setae pointing posteriad; surface as on elytra; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergite VII straight (similar as in Figs 21c, d). Metatibia with three subapical ctenidia. Aedeagus oval with anterior angles sub-rectangular; C : A ratio 0.20; sclerotised endophallus with vertical torsions; partly with small lobes; partly with longer teeth; near apex transparent; parameres slightly longer than apical cones; divided into slender inner lobe and plate-like outer lobe; outer lobe approximately two third as long as inner lobe; inner lobe with row of six setae along inner face.
**Type material:** male, holotype: Mexico: Veracruz, 7 km E Huatusco, cloud forest litter, Berlese, 22.6.1983, leg. Peck & Anderson (FMNH).

**Paratypes:** Mexico: 1 male, 3 females, with same data as holotype (3 FMNH, 1 UIC); 1 female with same data as holotype but 25.4.1977 (FMNH); 1 female, from same region as holotype but wooded pasture, 1400 m elev., litter in rock cracks, along stream (FMNH); 2 males, 3.5 km S Jalapa, 1400 m elev., sifted leaf litter along stream, 29.5.1991, leg. J. Ashe #9 (KNHM); 2 females, Chiapas, 2.6 mi S Rayon, Hwy. 195, cloud forest, 1500 m elev., sifted leaf litter along stream, 5.5.1977, leg. J. Ashe (FMNH); 11 females, Chiapas, 8.9 km E Rayon, 1500 m elev., cloud forest litter, 19.9.1991, leg. R. Anderson, #91-109 (10 KNHM, 1 UIC); 1 male, 10 km W El Bosque, 1475 m elev., pine/cloud forest litter, 15.9.1992, leg. R.S. Anderson #92 103 (KNHM); 1 male, 15.1 km N Bochil, 1930 m elev., oak/pine/Liquidambar forest litter, 24.9.1992, leg. R. Anderson #92-116 (KNHM); 1 female, 4.6 km S Jalapa, 1300 m elev., riparian mesotrophic forest litter, 19.9.1992, leg. R.S. Anderson #92-104 (KNHM); Lagos de Montebello, Cinco Lagos, 1500 m elev., Liquidambar/oak/pine forest litter, 22.9.1992, leg. R.S. Anderson #92-113 (KNHM); 1 female, Oaxaca, 22.6 mi S Valle National, Hwy. 175, cloud forest, 2010 m elev., sifted leaf litter along stream, 27.4.1977, leg. J. Ashe (FMNH); 1 female, 32 km SW Valle Nacional, km 85, 1650 m elev., trans/cld leaf litter, Berlese, male, 26.7.1992, leg. R. Anderson (KNHM); 10 km W El Bosque, 1475 m elev., pine/cloud forest litter, 25.5.1991, leg. P. W. Kovarik (FMNH); 1 female, Veracruz, 16 km S Orizaba, on rd. to Tlaquila, 1630 m elev., sifted leaf litter along stream, 29.5.1991, leg. J. Ashe #3 (KNHM); 1 male, 1 female, Guerrero, 10.3 km SW Filo de Caballo, 2700 m elev., oak/pine/fire forest, leaf/log litter, Berlese, 13.7.1992, leg. J. Anderson #92-002 (KNHM); 2 males, 2 females, Cortés, P.N. Cusuco, 18.7 km N Cofradia, 5.4 km W Buenos Aires, Cerro Jiluco (88°14’W, 15°31’N), 1650 m elev., liquidambar forest, Berlese, 26.8.1994, leg. R. Anderson, #224E (KNHM); 4 males, Olancho, La Muralla, 4 km N La Union (86°42’W, 15°06’N), 1530 m elev., cloud forest litter, Berlese, 16.-17.8.1994, leg. R. Anderson (KNHM); 4 males, 2 females, same region and collector, but 1450 m elev., wet montane evergr. litter, 25.6.1994 (KNHM); 4 males, 6 females, El Paraíso, 6.9 km W Yusucará, Cerro Monserrart (86°24’W, 13’44’N), 1760 m elev., cloud forest litter, Berlese, 10.6., 7.7., 27.7.1994, leg. Anderson (9 KNHM, 1 UIC); 2 females, same region and collector, but 11 km SE Zamarrano & 10 km SE Galeras “Los Lavaderos”, (86°55’W, 13’24’N), 1450 m elev., pine/oak/liquidambar, 11.6.1994, leg. R. Anderson (KNHM); 3 males, 7 females, Francisco Morazán, Yerba Buena, 36.9 km W Tegucigalpa (87°34’W, 14°05’N), 1920 m elev., ov/cld forest litter, 28.6.1994, leg. R. Anderson (KNHM, 2 UIC); 2 females, same region, habitat, and collector, but (86°49’W, 14°36’N), 26.6.1994 (KNHM); 1 male, 1 female, same region and collector, but Res. Biol. El Chile, nr. Guaimaca (86°52’W, 14°21’N), 1600 m elev., upper montane forest litter, 8.5.2002, #RSA2002-011 (KNHM); 2 females, Santa Barbara, La Fe, Finca La Roca, 5.3 km S Peña Blanca (88°02’W, 14°57’N), 740 m elev., montane evergr. forest, 19.6.1994, leg. R. Anderson (KNHM); 4 females, Lempira, 13.1 km NE & 7.3 km E Gracias, Mt. Puca (88°31’W, 14°41’N), 1600 m elev., liquidambar litter, 18.6.1994, leg. R. Anderson (3 KNHM, 1 UIC); 1 female, 3.5 km S Jalapa, 1400 m elev., sifted leaf litter along stream, 29.5.1991, leg. J. Ashe (KNHM); Guatemala: 1 male, Quiche, Cerro del Amay (-90.73669, 15.45793), 1689 m elev., sifted cloud forest litter, 16.6.2016, leg. R. Anderson #GUAT1A15 151 (KNHM); 1 male, Alta Verapaz, nr. Purulha, (Old Salama Road) (-90.29958, 15.24055), 1640 m elev., sifted open oak forest litter, 20.9.2008, leg. R. Anderson # LLAMA08RSA141 (KNHM); 2 males, San Marcos, Parque Municipal Refugio del Quetzal (-91.87296, 1493916), 1818 m elev., sifted cloud forest litter, leg. R. Anderson #GUAT1A15 103 (1 KNHM, 1 UIC); 1 male, Zacapa, Alejandrina, nr. Finca Lucas (-89.62475, 15.13491), 2122 m elev., sifted oak forest litter, 19.6.2015, leg. R. Anderson #GUAT1A15 155 (KNHM); 1 female, 20 km N Estancia de la Virgen, Sierra de las Minas (89°44’5’, 15°57’N), berlesate forest litter, 1900 m elev., 8.6.1991, leg. R. Anderson #55 (KNHM); 2 females, Alta Verapaz, nr. Purulha (Old Salama Road) (-90.29958, 15.24055), 1640 m elev., sifted open oak forest litter, 20.9.2008, leg. R. Anderson # LLAMA08RSA141 (KNHM); 1 female, Suchitepéquez, Volcán Atitlán, Ref. El Quetzal (-91.91235, 14.53067), 1670 m elev., cloud forest, flight intercept trap, 16.-18.6.2015, leg. Z.H. Falin #GUAT1F15 161 (KNHM); 2 females, Alta Verapaz, nr. Purulha (Old Salama Road) (-90.29958, 15.24055), 1640 m elev., sifted open oak forest litter, 20.9.2008, leg. R. Anderson # LLAMA08RSA141 (KNHM); 1 female, Suchitepéquez, Volcán Atitlán, Ref. El Quetzal (-91.91235, 14.53067), 1670 m elev., cloud forest, flight intercept trap, 16.-18.6.2015, leg. Z.H. Falin #GUAT1F15 161 (KNHM); Honduras: 4 females, Cortés, Yojoca Lake, Deer Island (87°58’W, 14°55’N), 670 m elev.,
flight intercept trap, 19.-21.6.1994, leg. J. Ashe, R. Brooks (KNHM); 1 female, Francisco Morazán, 21.3 km N Tegucigalpa, La Tigra (86°06'W, 14°12'N), 1950 m elev., forest litter berlese, 29.6.1994, leg. R. Anderson #139B; 1 female, same region but 1900 m elev., leaf litter by trail, 8.6.1994, leg. Ashe & Brooks #044 (KNHM); 1 female, F. Morazán Dept., Res. Biol. El Chile, nr. Guaimaca (86°52'W, 14°21'N), 1600 m elev., 8.5.2002, leg. R. Anderson #RSA 2002-011 (KNHM); Nicaragua: 4 females, Matagalpa Dept., 16 km N Matagalpa (85°56.1'W, 13°02.7'N), 1385 m elev., montane secondary forest litter, 22.5.2002, leg. R. Anderson #RSA2002-029 (KNHM); Panama: 1 male, Chiriquí, 8.4 km NW Boquete, Volcan Baru (82°28.0'W, 8°48.0'N), 1860 m elev., dry oak forest litter, 18.6.1995, leg. R. Anderson #PAN2A95 34E (KNHM); 1 female, Grenada Dept., Volcan Mombacho Res. Nat. (85°58.8'W, 11°50.0'N), 150 m elev., elfin cloud forest litter, 2.-5.6.2002, leg. R. Anderson #RSA2002-033 (KNHM).

**Diagnosis:** *Somoleptus pecki* closely resembles *S. parvulus* and *S. obsoletus* in size. It can be distinguished from *S. parvulus* by the slightly larger size and the smaller eyes. In *S. parvulus* the eyes are more prominent and the postocular sides are 3.5 times as long as eyes, whereas in *S. pecki* the eyes are less prominent and the postocular sides are 4.1 times as long as eyes. Moreover, the inner lobe of the parameres in *S. pecki* are straight and twice as long as the cones. In *S. parvulus*, the inner lobe of the parameres is curved and one third longer than the cones. Both species can be separated from *S. obsoletus* by the sub-rectangular posterior angles of the head. In *S. obsoletus* the shape of head is more oval without posterior angles.

**Description:** Length: 3.8 mm. Colouration: Black; legs and antennae brown.

Head: 0.60 mm long, 0.42 mm wide; eyes small, PS : E ratio 4:1; postocular sides slightly curved to sub-rectangular posterior angles; posterior margin straight; setiferous punctuation deep and moderately dense; on average, interstices between punctures as wide as diameter of punctures; on anterior vertex denser than on posterior vertex; impunctate midline close to neck absent; surface without microsculpture; polished. Antennae with first antennomere shorter than half-length of head; second antennomere slightly longer than wide; third approximately quadrato; following antennomeres approximately 2.5 times as wide as long; increasing in width; antennomeres 4–11 pubescent. Pronotum: 0.71 mm long, 0.46 mm wide; widest at anterior fourth; convergent to neck in smooth curve; posterioriad, slightly narrowed to sub-rectangular angles; posterior margin slightly convex; setiferous punctuation finer and sparser than on head; on average, interstices between punctures 1.5 to 2 times as wide as diameter of punctures; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.58 mm long, 0.55 mm wide; humeral and posterior angles sub-rectangular; sides slightly divergent posteriad; posterior margin slightly retreated to suture; setiferous punctuation deep and moderately dense; on average, interstices between punctures as wide as diameter of punctures; surface without microsculpture; polished. Abdomen with setiferous punctuation finer and sparser than on elytra; surface without microsculpture; polished; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergite VII straight (similar as in Figs 21c, d). Aedeagus oval; anterior angles sub-rectangular; C : A ratio 0.30; sclerotised endophallus with torsions in basal half; straight in apical half; parameres divided into inner slender lobe and plate-like outer lobe; inner lobe twice as long as cones; at inner face with row of setae; outer lobe transparent; three forth as long as inner lobe.

**Etymology:** The species name honours S. Peck, who found it on one of his numerous expeditions to Latin America.

*Somoleptus peruanus* spec. nov.
urn:lsid:zoobank.org:act:842A0E8D-ED87-4AC1-9207-C4D7B730C7B3
Figs 11a, b; 49 J

**Type material:** male, holotype: Peru: Dept. Loreto, 1.5 km N Teniente Lopez (76°06.92'W, 2°35.66'S), 210-240 m elev., flight intercept trap, 22.7.1993, leg. R. Leschen #166 (KNHM). Paratypes: Peru: Dept. Loreto, 2 males, Campamento San Jacinto (75°51.77'W, 2°18.75'S), 175-215 m elev., flight intercept trap, 7.7., 8.7., 10.7.1998, leg. R. Leschen #43 (5 KNHM, 2 UIC); Ecuador: Napo, 400 m Jatun Sacha Biol. Station (21 km E Puerto Napo), lowland rain for., flight intercept trap, 18.7., 20.7.1994, leg. Levy & Génier (KNHM); 2 females, Sucumbios, Sacha Lodge (76°3.5'W, 0°5'S), 270 m elev., Malaise trap, 4.-14.4.1994, 25.7.-3.8.1994, leg. Hibbs (KNHM).

**Diagnosis:** The species extremely resembles *S. struyvei* in size, punctuation and structure of the aedeagus. It may be the sister species of *S. struyvei* from the Guayanas on the East slope of Amazonian Andes. Without study of the aedeagus, both species can hardly be separated. The cones at the apical orifice of the aedeagus in *S. peruanus* are much longer and the apical part of the parameres is wider than in *S. struyvei*.

**Description:** Length: 4.6 mm. Colouration: Dark brown; pronotum only very slightly lighter; legs and antennae light brown.

Head: 0.81 mm long, 0.64 mm wide; eyes moderately large; not prominent; PS : E ratio 3:0; postocular sides parallel; posterior angles combined with posterior margin nearly semi-circular; only short central part straight; without interantennal furrows; setiferous punctuation weak and sparse; on average, interstices between
punctures 2 to 3 times as wide as diameter of punctures; surface without microsculpture; shiny. Antennae with first antennomere half-length of head; antennomeres 2 and 3 as long as apical width; antennomere 4 to 10 wider than long and increasing in width; antennomere 4 twice as wide as long; antennomere 10 1.5 times as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.92 mm long, 0.60 mm wide; widest in front of anterior third; anteriad, narrowed to neck in short convex curve; posteriad, sides nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation slightly deeper and denser than on head; on average, interstices between punctures twice as wide as diameter of punctures; wide midline impunctate; irregular row of punctures adjacent to midline with 13 to 14 punctures; surface without microsculpture; shiny. Elytra: 0.86 mm long, 0.75 mm wide; humeral and posterior angles sub-rectangular; sides slightly divergent posteriad; posterior margin slightly convex; widely retrated to suture; setiferous punctuation deep and dense; on average, interstices between punctures half as wide as diameter of punctures; surface without microsculpture; shiny. Abdomen with fine and spars setiferous punctuation; surface without microsculpture; shiny; posterior margin of male sternite and tergite VII slightly convex (similar as in Figs 19c, d). Aedeagus oval with sub-rectangular anterior angles; apical orifice on short prominence; cones at interior edge of apical orifice; relatively long; C : A ratio 0.29; sclerotised endophallus with longitudinal torsion; covered with long teeth and lobes; parameres long; straight and wide at base; shortly curved interiorly to acute apex; apex with numerous sensillae with extremely short setae; on basic shaft with one long seta.

**Etymology:** The species is named after the country, where it was found.

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**Somoleptus pulcher** Bernhauer, 1935
Figs 8a–d; 47 I

**Type material examined:** male, syntype: Brazil: without more data, don. Arrow (FMNH).

**Additional material examined:** Brazil: 1 female, Linha Facão, Santa Catarina, May, 1954, leg. F. Plaumann (KNHM); Paraguay: 5 females, Guairá, Melgaréjo, Tacuara Creek, flood detritus, 20.10.1994, leg. U. Drechsel (KNHM); 2 females, Cordillera Altos, soil trap, 16.8.1991, leg. U. Drechsel (1 KNHM, 1 UIC).

**Diagnosis:** Among the similarly large species between 4 and 5 mm, *S. pulcher* is characterised by the light brown, nearly yellow pronotum. In this respect, it resembles *S. laevis*. In contrast to nearly absent posterior angles of head in *S. laevis*, the posterior angles of the head are more sub-rectangular in *S. pulcher*. *Somoleptus pulcher* is mainly characterised by the triangular shape of the parameres and the broad structure of the apical cones of the aedeagus. The aedeagus resembles that of *S. recurvatus*, but *S. recurvatus* is much darker and the pronotum less polished than in *S. pulcher*.

**Description:** Length: 4.8 mm. Colouration: Brown; head and elytra dark brown; nearly black; pronotum light brown; slightly darkened anteriorly; legs and antennae light brown to nearly yellow. Head: 0.88 mm long, 0.67 mm wide; long oval; eyes large; PS : E ratio 2.5; posterior angles widely rounded; posterior margin convex; interantennal furrows weak; setiferous punctuation moderately dense and deep; on average, interstices between punctures twice as wide as diameter of punctures; surface without microsculpture; shiny. Antennae with first antennomere as long as half-length of head; second and third antennomere triangular; elongate; at least twice as long as apical width; following antennomeres wider than long; fourth antennomere 1.5 times as wide as long; antennomere 10 twice as wide as long; antennomere 4–11 pubescent. Pronotum: 0.94 mm long, 0.58 mm wide; widest shortly behind anterior third; anteriad, convexly narrowed to neck; posteriad, slightly narrowed in central third and nearly parallel in posterior third; posterior angles shortly rounded; posterior margin slightly convex; setiferous punctuation sparse; wide midline impunctate; irregular line adjacent to midline with 17-18 punctures; laterad, punctuation sparser; surface without microsculpture; polished. Elytra: 0.85 mm long, 0.81 mm wide; humeral angles nearly rectangular; posteriad, sides slightly divergent; posterior angles nearly rectangular; posterior margin slightly convex; shortly retrated to suture; setiferous punctuation moderately dense and deep; on average, interstices between punctures 1.5 times as wide as diameter of punctures; surface with irregular weak ground sculpture; less shiny than head and pronotum. Abdomen with setiferous punctuation as dense as on elytra; microsculpture transversely reticulate; less shiny than forebody; male sternite VII and tergite VII with straight posterior margin. Aedeagus shortly oval with sub-rectangular anterior part; pair of apical cones moderately large; C : A ratio 0.31; parameres short; forming triangular plate with numerous sensillae; sensillae without setae.
**Additional material examined:** Mexico: 1 male, Jalapa, leg. F. Schneider (ZMHB); 1 female, Queretaro, 16 mi. E Landa de Matamoros, 5300 ft elev., under oak bark, 18.-19.7.1970, leg. A. Newton (FMNH); 1 male, Jalisco, Puerto los Mazos, 10 mi SW Autlán, 4400 ft elev., Berlese, litter, oak-tropical deciduous forest, 25.9.1973, leg. A. Newton (FMNH); 1 female, Chiapas, 12 mi NW Ocozocouatl, 3200 ft elev., 3200 ft elev., under bark, 4.-5.9.1973, leg. A. Newton (FMNH); 1 male, 5.9 km E Bochil, 1300 m elev., riparian mesophytic forest litter, 15.9.1992, leg. R. Anderson #92-104 (KNHM); 4 males, Oaxaca, 14.9 km N Sola de Vega, leaf litter in ravine, 1820 m elev., 20.7.1992, leg. J.S. Ashe #104 (3 KNHM, 1 UIC); 1 female, Tamaulipas, San Carlos (98°57.637'W, 24°31.782’N), 1100 m elev., dry oak forest litter, 22.7.2006, leg. R. Anderson #MEX1A06-012 (KNHM); 1 male, Veracruz, 1.1 km S Jalapa, on Coatepec rd., under fungusy bark, 12.7.1992, leg. J. Ashe #54 (KNHM); 1 male, 4.0 km S Jalapa, 1350 m elev., leaf litter along stream 30.5.1991, leg. J.S. Ashe #40 (KNHM); Guatemala: 2 females, Huehuetenango: Huehuetenango (5 km S), leaf litter, 6.8.1991, leg. P. Kovarik & T.K. Philpps (FMNH); Costa Rica: Punta. Prov., Monte Verde Biol. Stat. (84°49.141'W, 10°19.672’N), 1515 m elev., cloud forest, flight intercept trap, 10.-17.6.2001, leg. S. & J. Peck #CR1P01 002 (KNHM).

**Diagnosis:** Unfortunately, the abdomen of the single type specimen is destroyed. Therefore, it is uncertain if it is a male or a female and a study of the sexual structures in the last abdominal segments was impossible. The description of the male characters, therefore, is based on the non-type specimens. The species is very similar to *S. parvulus* in size and colouration. *Somoleptus punctulatus* may be separated from *S. parvulus* by the denser and deeper punctuation of the elytra and the presence of microsculpture. It may be that both species are conspecific. However, this problem can only be solved if more specimens, in particular, more males are collected.

**Description:** Length: 3.7 mm (estimated). Colouration: Reddish brown; head and elytra darker, blackish; base and apical margin of elytra lighter than the central parts.

Head: 0.61 mm long, 0.41 mm wide; eyes moderately large; PS : E ratio 2.5; postocular sides twice as long as eyes; approximately parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation deep and dense; without distinct impunctate midline; extremely narrow parts on anterior and posterior vertex impunctate; on average, interstices between punctures 0.5 times as wide as diameter of punctures; surface without microsculpture; polished. Antennae with first antennomere half-length of head; second antennomere longer than head; third approximately quadrate; combined half-length of first antennomere; following antennomeres nearly 2.5 times as wide as long; increasing in width; antennomere 4–11 pubescent. Pronotum: 0.76 mm long, 0.48 mm wide; widest at anterior third; anteriad, continuously convergent to neck; posteriad, nearly parallel; posterior angles sub-rectangular; posterior margin slightly convex; setiferous punctuation nearly as dense and deep as on head but with wide impunctate midline; surface without microsculpture; polished. Elytra: 0.75 mm long, 0.64 mm wide; humeral and posterior angles sub-rectangular; posteriad, sides slightly divergent; posterior margin slightly retrofaced to suture; setiferous punctuation still deeper and denser than on head and pronotum; on average, interstices between punctures shorter than 0.5 times as wide as diameter of punctures; surface with isodiometric microsculpture; moderately matt. Abdomen weak and sparse with setiferous punctuation; distinctly weaker and sparser than on fore-body; posterior margin of male sternite VII with central triangular prominence; posterior margin of male tergite VII straight (similar as in Figs 21c, d). Aedeagus oval; apical cones short; C : A ratio 0.15; sclerotised endophallus narrow with wide torsion; parameres divided into slender inner lobe and plate-like outer lobe; inner lobe curved with few setae on inner face; transparent outer lobe two third as long as inner lobe.

**Somoleptus recurvatus** spec. nov.
urn:lsid:zoobank.org:act:52783680-EA00-4C31-AEF6-3F7C6A8E5576
Figs 9a, b; 48 C

**Type material:** male, holotype: Brazil, Mato Grosso, Campo Verde, Santa Luzia farm (55°209’W, 15°433’S), dry forest litter, 25.3.2014, leg. K. Peña Peña (UIC). Parameres: French Guiana: 1 male, 1 female, Caussade (-52.57 W, 5.10 N), 6.11.2001, leg. T. Struyve (TSC).

**Diagnosis:** The species resembles many black species of similar size between 4 and 6 mm and can be hardly separated without study of the aedeagus. The broad triangular parameres and the recurve cones at the apical orifice are specific and can be used to distinguish the species from all other species of the genus.

**Description:** Length: 5.2 mm. Colouration: Black, legs light brown; antennae darker brown.

Head: 0.77 mm long, 0.58 mm wide; eyes moderately long; PS : E ratio 2.5; posterior angles combined with posterior margin semi-circular; interantennal furrows weakly present; weak transverse furrows from anterior edge of eyes to central vertex; setiferous punctuation moderately deep and dense; on average, interstices between punctures 1.5 to 2 times as wide as diameter of punctures; surface without microsculpture; polished. Antennae with first antennomere slightly longer than half-length of head; second and third antennomere triangular; nearly twice as long as apical width; combined slightly longer than half-length of first antennomere; following antennomeres wider than long and increasing in width; fourth 1.5 times as wide as long; tenth twice as wide as long; antennomeres 4–11 long and increasing in width; fourth 1.5 times as wide as long; tenth twice as wide as long; antennomeres 4–11 pubescent.
pubescent. Pronotum: 0.88 mm; 0.52 mm wide; widest slightly in front of anterior third; shortly convergent in smooth curve to neck; posteriad, slightly narrowed; nearly parallel; posterior angles combined with posterior margin convexly curved; setiferous punctuation as dense and deep as on head; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.75 mm long, 0.76 mm wide; humeral and posterior angles sub-rectangular; sides slightly divergent posteriad; posterior margin slightly retreated to suture; setiferous punctuation dense and moderately deep; with irregular ground-sculpture; moderately matt. Abdomen with setiferous punctuation finer than on elytra; without microsculpture; shiny; posterior margin of male sternite VII approximately semi-circular and slightly elevated; posterior margin of male tergite VII straight (similar as in Figs 9c, d), but with slight prominent centre. Metatibia with two subapical ctenidia. Aedeagus oval with sub-rectangular anterior angles; anterior angles at central orifice slightly prominent; cones at apical orifice short and broad; C : A ratio 0.18; kneed, but at apex approximately parallel; parameres short; triangular; at base extremely broad; in basic third abruptly narrowed to nearly acute apex; inner and outer face with numerous cannuate-sensillae.

**Etymology:** The species name is derived from the Latin word *recurvar* (meaning to bend backwards) and refers to the specific structure of the cones at the apical orifice.

_Somoleptus sparsus_ SHARP, 1885

Figs 33a, b, 48 H

_Somoleptus sparsus_ SHARP, 1885: 497

**Type material examined:** male, holotype: Guatemala: near the city, Aceituno, leg. Champion (BMNH).

**Additional material examined:** Mexico: 3 females, Chiapas, Sierra Morena (-93.6053, 16°.1595) 1360 m elev., mesophile forest, sifted litter, 12.5.2008, leg. #LLAMA08 Wm-A.01-1 (2 KNHM, 1 UIC); 1 male, Chiapas, Naha (9°35.155'W, 16°58.45'N), 1000 m elev., sifted mixed montane wet forest litter, 15.7.2007, leg. R. Anderson #LLAMA07 RSA013 (KNHM); 1 male, El Bosque, 1475 m elev., pine/cloud forest litter, 15.9.1992, leg. R. Anderson #92-103 (KNHM); 1 male, 2 females, Mpio, Ocozocuautla, Laguna Belgica, Sendero Montana (93°27.14'W, 16°52.40'N), 1080 m elev., oak forest litter, 8.7.2003, leg. R. Anderson #MEX1A03 103 (KNHM); 1 female, Oaxaca, 14.9 km N Sola de Vega, 1820 m elev., deep leaf litter in rock cracks, 20.7.1992, leg. J.S. Ashe #102 (KNHM); 1 male, Veracruz, 2.3 km S Jalapa, 1320 m elev., litter nr. river, 13.7.1992, leg. J.S. Ashe #67 (KNHM); Guatemala: 3 females, Alta Verapaz, nr. Purulha (Old Salama Road) (-90.2995, 15.2405) 1640 m elev., sifted open oak forest litter, 20.9.2008, leg. R. Anderson #LLAMA08 RSA141 (KNHM); Petén, 13 km NW Machaquilá (-89.5498, 14.4456) 400 m elev., leaf litter tropical moist forest, 27.5.2009, leg. # LLAMA09 Wa-B-06-1-all (KNHM); Honduras: 4 males, Atlántida, Yaruca, 9 km S (15°35'S, 86°40.1'W), 950 m elev., montane rainforest leaf litter, Winkler extractor, 2.1.2008, leg. P.S. Ward, # LLAM07 PSW 16029 (3 KNHM, 1 UIC); 2 females, El Paraíso, 6.9 km W Yuscarán, Cerro Monserrat (86°24'W, 13°55'N), 1760 m elev., forest litter, Berlense, 7.7.1994, leg. R. Anderson #103F (KNHM); 1 male, Olancho, La Muralla, 14 km N La Union (86°42'W, 15°06'N), 1450 m elev., wet montane evergreen litter, 25.6.1994, leg. R. Anderson #130E (KNHM); 1 male, 1 female, Morazán, Dept. Res. Biol. El Chile, nr. Guaimaca (86°52'W, 14°21'N), 1600 m elev., upper montane forest litter, 8.5.2002, leg. R. Anderson #RSA2002-011 (KNHM); 2 females, Yoro, Dept. P.N. Pico Pijol (87°37.6'W, 15°09.4'N), 1300 m elev., upper montane forest litter, 11.5.2002, leg. R. Anderson #RSA2002-017 (KNHM); Costa Rica: 2 males, Punt. Prov., Monteverde, Biol. Stat. (84°49.14'W, 10°19.67'N), 1515 m elev., cloud forest, flight intercept trap, 10.-17.6.2001, leg. S. & J. Peck #CR1P01 002 (KNHM); 2 females, Monteverde, 1240 m elev., 10.5.1989, leg. J. Ashe, R. Brooks, R. Leschen (KNHM); 1 female, Puntarenas, S. V. E. Biol. Las Alturas, 1500 m elev., Jan. 1992, leg. P. Hanson (KNHM); 1 male, 1 female, San José, km 117 Pan-Amer. Hwy., 19 km N San Isidro (83°42.2'W, 9°28.0'N), 1800 m elev., 20.-25.6.1997, leg. S. & J. Peck #CR1P97 023 (KNHM); Panama: 1 female, Colon, Parque Nac. Soberanía, Pipeline Rd., km 2.0 (79°45'W, 9°07'N), flight intercept trap, 23.-25.5.1995, leg. J. Jolly, C. Chaboo (KNHM); 1 female, Chiriquiri, 20 km N Guacal, Finca La Suiza (82°12'W, 8°39'N), 1200 m elev., oak forest litter, 10.6.1995, leg. R. Anderson #PAN2A95 16D; 1 male, Hornito, Finca La Suiza (82°12'W, 8°39'N), flight intercept trap, 3.6.2000, leg. H. & A. Howden (KNHM); 2 females, Darién, Cana Biological Station, Serrania de Pirre (77°45.18'W, 7°45.18'N), 1450 m elev., flight intercept trap, 4.-7., 7.-9.1996, leg. J. Ashe, R. Brooks #PAN1A96 108 (KNHM); 1 female, Estac. Ambiental Cana, Cerro Pirre (77°41.6'W, 7°45.2'N), 1450 m elev., cloud forest litter, 6.6.1996, leg. R. Anderson #PAN2A96-112D (KNHM); Venezuela: 2 males, Aragua, Rancho Grande Biol. Stn, (67°41'W, 10°21'N), Berlense leaf litter, 1390-1420 m elev. 27.2.1997, leg. R. Brooks #004 (1 KNHM, 1 UIC).

**Diagnosis:** _Somoleptus sparsus_ closely resembles _S. obsoletus_ and _S. obscurus_ in size, colouration, and large eyes. It is slightly larger than _S. obsoletus_ and smaller than _S. obscurus_. It can be separated from _S. obsoletus_ by the obtusely angulate posterior angles of the head. Compared to _S. obscurus_, the smaller size and the slightly smaller eyes are characteristic for _S. sparsus_.

**Description:** Length: 4.0 mm. Colouration: Black; legs and antennae brown.
Head: 0.76 mm long, 0.54 mm wide; eyes large; prominent; PS : E ratio 2.6; postocular sides nearly parallel; posterior angles sub-rectangular; posterior margin convex with short central part straight; interantennal furrows present; setiferous punctuation moderately deep and dense; on average, interstices between punctures at least as wide as diameter of punctures; partly wider; midline impunctate; surface without microsculpture; shiny. Antennae with first antennomere half-length of head; second and third antennomeres conical; slightly longer than wide; following antennomeres wider than long; increasing in width; fourth antennomere 1.5 times as wide as long; tenth antennomere nearly 2 times as wide as long; antennomeres 4–11 pubescent. Pronotum: 0.81 mm long, 0.46 mm wide; widest at anterior third; aneriarid, widely narrowed in concave curve; posterioriadi, shortly narrowed in concave curve; in posterior third nearly parallel; posterior angles sub-rectangular; posterior margin weakly convex; setiferous punctuation as dep and dense as on head; punctures in row adjacent to impunctate midline with shorter interstices; surface without microsculpture; shiny. Elytra: 0.77 mm long, 0.63 mm wide; humeral and posterior angles sub-rectangular; sides nearly parallel; posterior margin convexly curved; triangularly retreated to suture; setiferous punctuation as deep and dense as on pronotum; surface without microsculpture; shiny. Abdomen with setiferous punctuation as dense but finer than on elytra; setae pointing posterioriad; posterior margin of male sternite VII triangularly prominent; posterior margin of male tergite VII straight (similar as in Figs 21c, d). Aedeagus oval with anterior angles sub-rectangular; cones at apical orifice moderately long; C : A ratio 0.25; sclerotised endophalaluls with longitudinal torsion; covered by moderately long teeth; parameres bilobed with plate-like outer lobe and slender inner lobe; outer lobe approximately half as long as inner lobe; inner lobe with row of long setae at inner edge.

**Somoleptus strigulata** (Blackwelder, 1943)

Figs 48 A

**Lithocharodes strigulata** Blackwelder, 1943: 498

**Type material examined:** female, holotype: Dominican Republic: Loma Rucilla & mts. N., 5–8000 feet elev., June 1938, leg. Darlington (MCZ). Paratypes: Dominican Republic: 2 females, Loma de la Penña, NW Constanza, 5000 feet, 7000 feet elev., August 1938, leg. Darlington; 1 female, cloud forest, vic. Valle Nuevo, 6000 feet elev., August 1938, leg. Darlington; Haiti: 1 female, La Visite & La Selle Range, 5–7000 feet elev., 16.–30. Sept. 1934, leg. Darlington (MCZ).

Additional material studied: Dominican Republic: 1 female not labelled as paratype: Loma Rucilla, 8–10000 feet elev., June 1938, leg. Darlington (MCZ).

**Diagnosis:** Unfortunately, all type specimens are females. *Somoleptus strigulata* is large, similarly large as *S. curtulus*. Although the aedeagus of the species is unknown, which makes a certain assignment to the genus *Somoleptus* uncertain, the structure of the pronotum fits better to *Somoleptus* than to *Lithocharodes* (see Irmler 2021). It can be distinguished from *S. curtulus* by the longer elytra. In *S. strigulata* the elytra are approximately quadrature, whereas they are distinctly shorter than long in *S. curtulus*. Moreover, the punctuation of the head is denser and the microsculpture on the pronotum deeper than in *S. curtulus*.

**Description:** Length: 6.1 mm Colouration: Dark brown; elytra indistinctly lighter brown; legs and antennae light brown.

Head: 0.98 mm long, 0.75 mm wide; long oval; eyes short; PS : E ratio 7.7; sides nearly parallel; posterior margin nearly semi-circular; interantennal furrows weak; setiferous punctuation sparse and moderately deep, on average, interstices between punctures twice as wide as diameter of punctures; surface with weak isodiametric microsculpture; moderately matt. Antennae with first antennomere approximately as long as half-length of head; second and third antennomere triangular; nearly twice as long as apical width; following antennomeres wider than long and increasing in width; fourth antennomere nearly twice as wide as long; tenth antennomere 2.2 times as wide as long; antennomeres 4–11 pubescent; all antennomeres with setae. Pronotum: 1.14 mm long, 0.75 mm wide; widest in central third; anteriad, narrowed to neck in wide convex curve; posterioriad, slightly narrowed in central third; posterior third nearly parallel; posterior angles shortly rounded to nearly straight posterior margin; setiferous punctuation as dense and deep as on head; adjacent to narrow impunctate midline with irregular line of approximately 19 punctures; surface with wavy reticulate microsculpture; as matt as head. Elytra: 0.71 mm long, 0.73 mm wide; humeral angles obtuse; posterioriad, sides divergent; posterior angles nearly rectangular; posterior margin triangularly retreated to suture; setiferous punctuation slightly denser than on pronotum; setae pointing posterioriad; surface with isodiametric microsculpture; as matt as on pronotum. Abdomen slightly finer and sparser punctate than forebody; setae pointing posterioriad; surface with transverse reticulate microsculpture; moderately matt. Aedeagus unknown.
intercept trap, 23.-24.5.1997, 10.6.1997, leg. J. Ashe, R. Brooks #FG1AB97 177 (4 KNHM, 1 UIC); 1 female, Saül, 7 km N, 3 km NW Les Eaux Claires, Mt. La Fumée (53°13.19’W, 3°39.46’N), 490 m elev., flight intercept trap, 1.-8.6.1997, leg. J. Ashe, R. Brooks #FG1AB97 162 (KNHM); 4 females, from same location but 30 m elev., 220 m elev., 300 m elev., 30.5.-6.1.1997, 4.-8.6.1997; 1 female, Saül, Mt. Galbao summit (53°16.42’W, 3°37.18’N), 740 m elev., flight intercept trap, 5.-7.6.1997, leg. J. Ashe, R. Brooks #FG 1AB97 154 (KNHM); 4 females, Cayenne, 33.5 km S and 8.4 km NW of Hwy N2 on Hwy D 5 (52°28.41’W, 4°48.18’N), 30 m elev., flight intercept trap, 26.5.-28.5.1997, 29.5.-9.6.1997, leg. J. Ashe, R. Brooks #FG1AB97 171 (3 KNHM, 1 UIC); Suriname: 5 females, Sipaliwini District, Camp 1: on Kutari River (56°47.24’W, 2°10.52’N), 228 m elev., flight intercept trap, 19.-24.8.2010, leg. Larsen & Short #SR10-0819–TN1 (KNHM); 2 female, same data except Camp 2: on Sipaliwini River, 27.8.-1.9.2010 (KNHM); 2 females, Marowijne, Perica, 70 km E Paramaribo, on East-West Road (54°36.31’W, 5°40.28’N), 5 m elev., flight intercept trap, 29.5.-31.5., 31.5.-5.6.1999, leg. Z. Falín, B. DeDijn #SUR1F99 034 (KNHM).

Diagnosis: Regarding size, structure and colouration of the elytra and the aedeagus, *S. struyvei* closely resembles *S. peruanus*. The eyes of *S. struyvei* are larger and more prominent than in *S. peruanus*. In particular, the cones at the apical orifice are much shorter in *S. struyvei* than in *S. peruanus* and the parameres are different (see description of *S. peruanus*). The aedeagus of *S. struyvei* also resembles that of *S. breviusculus* but the cones in *S. breviusculus* are much shorter. In contrast to *S. struyvei*, the elytra of *S. breviusculus* are also much shorter.

Description: Length: 4.9 mm. Colouration: Black; legs and antennae brown.

Head: 0.78 mm long, 0.61 mm wide; eyes large, prominent; PS : E ratio 2.4; approximately parallel; postocular angles combined with posterior margin semi-circular; interantennal furrows weak; setiferous punctation weak and sparse; on average, interstices between punctures 2–3 times as wide as diameter of punctures; small midline impunctate except two punctures in interocular area; surface without microsculpture, polished. Antenna with first antennomere distinctly longer than half-length of head; antennomeres 2 and 3 longer than wide; combined half as long as first antennomere; antennomeres 4–10 twice as wide as long and increasing in width; antennomeres 4–11 pubescent. Pronotum: 0.90 mm long, 0.52 mm wide; widest at anterior third; antennae, narrowed in convex curve; posterior, slightly narrowed; in posterior third approximately parallel; posterior angles combined with posterior margin semi-circular; setiferous punctuation slightly denser than on head but similarly deep; on average, interstices between punctures twice as wide as diameter of punctures; wide midline impunctate; irregular line adjacent to midline with 14-15 punctures; surface without microsculpture; polished. Elytra: 0.87 mm long, 0.80 mm wide; humeral and posterior angles sub-rectangular; sides slightly divergent posteriad; posterior margin curved; slightly retreated to suture; setiferous punctuation similarly dense and deep as on pronotum; surface without microsculpture; polished. Abdomen with setiferous punctuation as dense as on elytra; slightly finer; posterior margin of male sternite and tergite VII straight. Aedeagus approximately hexagonal with obtuse angles; C : A ratio 0.19; retreated from apex; apically with transverse setae; apical orifice on each side with two teeth; sclerotised endophallus covered partly by moderately large teeth, partly by minute teeth; in these parts transparent; parameres straight and broad; in apical part abruptly narrowed to acute apex; with numerous sensillae; at inner edge with few short setae.

Etymology: The species honours its collector, Tim Struyve (Belgium), who found it on his excursion to French Guiana.

*Somoleptus subtilis* (Érichson, 1839) comb. nov.

Figs 3a–d; 48 B

*Leptacinus subtilis* Érichson, 1839: 337

*S. subtilis* (Érichson, 1839) in Sharp (1885: 495)

Type material examined: 4 syntypes: Venezuela: Aragua, coll. Moritz, 2 females, 2 males, one of the males was selected and labelled as lectotype (ZMHU).

Additional material examined: Honduras: 2 males, Francisco Morazán, Zamorano (14°N, 87°W), 820 m elev., fallen rotten figs, 30.6.1994, leg. Ashe, Brooks, #259 (KNHM).

Diagnosis: *Somolpetus subtilis* is similarly small as *S. parvulus* and *S. obsoletus*. The short size of the elytra resembles those of *S. parvulus* but they are unicoloured in *S. subtilis*, whereas they have lighter spots in *S. parvulus*. In addition, the structure of the aedeagus is totally different from that of *S. obsoletus* and *S. parvulus*. The cones are extremely long continuing into the central lobe, whereas they are much shorter and placed at the apical orifice in *S. obsoletus* and *S. parvulus*. The parameres are triangular in *S. subtilis*, but divided into two lobes with slender inner lobe in the other two species. Overall, the structure of the long cones and the specific endophallus are unique in the genus.

Description: Length: 3.3 mm. Colouration: Light brown; head and pronotum slightly lighter than elytra and abdomen; legs and antennae still lighter; nearly yellowish.

Head: 0.62 mm long, 0.45 mm wide; eyes large; slightly prominent; PS : E ratio 2.6; parallel; posterior angles rounded but nearly rectangular; posterior margin
slightly convex; setiferous punctuation weak and sparse; on average, interspaces between punctures 2 to 3 times as wide as diameter of punctures; surface without microsculpture; polished. Antennae with first antennomere distinctly longer than half-length of head; antenomeres 2 and 3 triangular; nearly twice as long as their apical width; following antenomeres wider than long and increasing in width; fourth antenomere nearly quadrate; tenth antenomere 1.5 times wider than long; antenomeres 4–11 pubescent; all antenomeres with short setae. Pronotum: 0.74 mm long, 0.42 mm wide; widest closely behind anterior third; antennae, narrowly in smooth curve to neck; posteriorly, shortly narrowed; nearly parallel in posterior third; posterior angles obtuse; posterior margin slightly convex; setiferous punctuation as weak and sparse as on head; wide midline impunctate; surface without microsculpture; polished. Elytra: 0.67 mm long, 0.62 mm wide; humeral angles nearly rectangular; sides slightly divergent to obtuse rounded posterior angles; posterior margin straight; setiferous punctuation as weak and sparse as on pronotum; surface with extremely weak ground sculp- ture; nearly polished. Abdomen slightly denser punctate than fore-body; weak transverse microsculpture, surface shiny; male sternite VII and tergite VII without process; simply convex to nearly straight. Aedeagus oval; at apical orifice with pair of long cone-like process; increasing in width from base to apex; C : A ratio 0.47; endophallus divided into two sclerotised stripes covered by minute spines; parameres triangular; not divided into two lobes; at inner edge with several cannu late sensilla; at outer edge and on basal plate more sensille.

**Somoleptus triangulus** spec. nov.

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Figs 42a, b; 50 C

**Type material:** male, holotype: Guatemala: Zacapa, Alejandria, nr. Finca Lucas (-89.6247, 15.1349), 2122 m elev., sifted oak litter, 19.6.2015, leg. R. Anderson

Type material

#GUAT1A15 155 (KNHM). Paratypes: Mexico, 1 female, Chiapas, Cerro Huitepec, ca. 5 km W San Cristobal, oak forest litter, 2700 m elev., 14.9.1992, leg. R. Anderson #92-100 (KNHM); 1 female, Chiapas, Coapilla, 7.3 km NE (93°97’W, 17°11’N), 2200 m elev., cloud forest leaf litter, Winkler trap, 12.7.2007, leg. M.G. Brandstetter #LLAM07 MGB641 (KNHM); 2 females, Guerrero, 10.3 km SW Filo de Caballo, 2700 m elev., oak/pine/ fir forest leaf/log litter, 13./15.7.1992, leg. R. Anderson #92-008/002 (1 KNHM, 1 UIC).

**Diagnosis:** *Somoleptus triangulus* has short elytra and short eyes. Among the similarly large species, e.g. *S. brunneus*, *S. longiceps*, and *S. ovatus*, *S. triangulus* is conspicuous by the divergent postocular sides of the head, which is found also in *S. brunneus*. Compared to *S. brunneus*, the eyes of *S. triangulus* are still shorter. In contrast to *S. brunneus*, the male sternite VII is prominent and not emarginate.

**Description:** Length: 4.0 mm. Colouration: Light brown; elytra, legs, and antennae lighter brown. Head: 0.67 mm long, 0.56 mm wide; eyes short; not prominent; PS : E ratio 5.9; postocular sides divergent; posterior angles sub-rectangular; posterior margin straight; interantennal furrows extremely weak; setiferous punctuation moderately deep and irregularly dense; on average, interspaces between punctures 1–2 times as wide as diameter of punctures; on posterior vertex sparser than on anterior vertex; wide midline impunctate; surface without microsculpture; polished. Antennae with first antennomere slightly longer than half-length of head; second and third antenomeres longer than wide; second 1.5 times as long as third; antenomeres 4 to 10 wider than long and increasing in width; fourth antenomere twice as wide as long; tenth antenomere 2.2 times as wide as long; antenomeres 4 to 11 pubescent. Pronotum: 0.83 mm long, 0.54 mm wide; widest shortly behind anterior third; anterior narrowed in smooth curve; sides in posterior half nearly parallel; posterior angles sub-rectangular; posterior margin nearly straight; setiferous punctuation as dense and deep as on head; wide midline impunctate; irregular line of punctures adjacent to midline with approximately 16-17 punctures; surface without microsculpture; polished. Elytra: 0.55 mm long, 0.61 mm wide; humeral angles absent; sides posteriorly slightly divergent; posterior angles rectangular; posterior margin trilobularly retreated to suture; setiferous punctuation as deep but slightly denser than on pronotum; on average, interspaces between punctures as wide as diameter of punctures; surface without microsculpture; shiny. Abdomen with setiferous punctuation as dense as on elytra but less deep; with weak transversely reticulate microsculpture; shiny; posterior margin of male sternite VII trian-gularly prominent; posterior margin of male tergite VII straight (similar as in Figs 21c, d). Aedeagus oval with anterior angles sub-rectangular; C : A ratio 0.19; endophallus with long sclerotised spines at base; anteriorly more transparent and without teeth or spines; parameres nearly twice as long as cones; divided into two lobes; outer lobe plate-like; inner lobe slender; nearly twice as long as outer lobe; with row of few setae at inner edge; another row of four setae near base.

**Etymology:** The species name is derived from the same Latin word (meaning triangle) and refers to the triangular shape of the head.

**Somoleptus tschirnhausi** spec. nov.

urn:lsid:zoobank.org:act:6E414D13-7488-4C5F-83A7-B5C3C54E015B

Figs 45a–d; 46 A

**Type material:** male, holotype: Venezuela: Maracay, Pitter Nacional Park, 10.7.1995, leg. M. v. Tschirnhaus (UIC).
Paratypes: Panama: 1 female Panama Prov., El-Llano-Cani Rd., km 7.5, 350 m elev., flight intercept trap, 5.6.1995, leg. A.R. Gillogly (KNHM); 1 ? (abdomen lost) San Blas, Nusagandi Reserve (78°59'W, 9°21'N), 350 m elev., flower fall litter, 16.5.1995, leg. J. & A. Ashe #009 (KNHM); Venezuela: 2 males, 8 females, Aragua, Rancho Grande Biological Station (10°21'N, 67°41'W), 1150 m, 1200 m, 1250 m, 1450 m elev., montane forest litter, 12.5.1998, leg. R. Anderson, #VEN1A98 029 (KNHM); 6 females, Trujillo, Paramo La Cristalina, Old Trujillo Rd. km 9.7 (9°21.21'N, 70°17.51'W), elfin forest litter, 20.5.1998, leg. R. Anderson, #VEN1A98 028A (KNHM); 1 female, Paramo de Mucuchies, Laguna Negra, Sierra Nevada Natl. Park (8°47.14'N, 70°48.31'W), 3300 m elev., elfin forest litter, 23.5.1998, leg. R. Anderson, #VEN1A98 002B (KNHM); 1 female, Merida, Laguna Negra, Sierra Nevada Natl. Park (8°47.14'N, 70°48.31'W), 3300 m elev., elfin forest litter, 23.5.1998, leg. R. Anderson, #VEN1ABH98 029 (KNHM); Nevada Natl. Park (8°47.14'N, 70°48.31'W), 3300 m elev., 0022B (KNHM); 1 female, same region, 1550 m elev. (10°21.38'N, 67°41.38'W), Grande Biological Station (10°21'N, 67°41.38'W), flight intercept trap, 12.-14.5.1998, leg. J. Ashe, R. Brooks, R. Hanley, #VEN1ABH98 03B (KNHM); Venezuela: 2 males, 8 females, Aragua, Rancho Grande Biological Station (10°21'N, 67°41.38'W), flight intercept trap, 12.-14.5.1998, leg. J. Ashe, R. Brooks, R. Hanley, #VEN1ABH98 03B (KNHM); 1 female, same region, 1550 m elev. (10°21.38'N, 67°41.38'W), Grande Biological Station (10°21'N, 67°41.38'W), flight intercept trap, 12.-14.5.1998, leg. J. Ashe, R. Brooks, R. Hanley, #VEN1ABH98 03B (KNHM); Old Trujillo Rd. km 9.7 (9°21.21'N, 70°17.51'W), elfin forest litter, 20.5.1998, leg. R. Anderson, #VEN1A98 029 (KNHM); 6 females, Trujillo, Paramo La Cristalina, Old Trujillo Rd. km 9.7 (9°21.21'N, 70°17.51'W), elfin forest litter, 20.5.1998, leg. R. Anderson, #VEN1A98 028A (KNHM); 1 female, Paramo de Mucuchies, Alto de Timotes (8°51.24'N, 70°49.31'W), 4020 m elev., dead leaves, 23.5.1998, leg. R. Anderson, #VEN1A98 029 (KNHM).

Diagnosis: Among the large species of >= 6 mm length with long elytra, S. tschirnhausi is characterised by the absence of distinct posterior angles of the head. Moreover, the parameres of the aedeagus differ by the more elongate shape from the similarly large S. elongatus with sub-rectangular posterior angles of the head. In S. elongatus, the parameres are much broader and plate-like.

Description: Length: 6.0 mm. Colouration: Black; elytra dark brown; indistinctly lightened at base; with small yellow spot at posterior angles; legs and antennae light brown; last antennomere with yellow apex.

Head: 0.78 mm long, 0.54 mm wide; eyes moderately large; not prominent; PS : E ratio 3.2; shape approximately oval; postocular sides slightly divergent to posterior angles sub-rectangular; humeral angles distinct; sides slightly divergent to posterior angles; posterior margin retreated to suture; punctuation distinctly deeper and denser than on head and pronotum; in parts nearly coriaceous; on average, interstices between puncture as wide as or shorter than diameter of punctures; between normal punctuation with weak micro-punctures; surface slightly matt. Elytra: 0.76 mm long, 0.71 mm wide; widest at posterior angles; surface without microsculpture; shiny. Antennae with sub-rectangular posterior angles of the head. Among the large species of >= 6 mm length S. elongatus and S. tschirnhausi are distinguished from each other by the shape of the aedeagus.

Key to species

1. Elytra shorter than wide, length : width ratio maximum 0.94, eyes shorter, PS : E ratio minimum 4.0 .......... 2
   - Elytra longer than wide or at least nearly quadrate, length : width ratio minimum 0.97, eyes longer; PS : E ratio maximum 4.6 .......................................................... 12

2. Large species of minimum 6.0 mm length, aedeagus with transparent endophallus .................................... 3
   - Smaller species of maximum 5.2 mm length .......................................................... 5

3. Eyes extremely short, postocular sides 7–10 times longer than eyes; endophallus sclerotized. S. andersoni spec. nov.
   - Eyes larger; postocular sides approximately 5 times longer than eyes; endophallus totally transparent .......... 4

4. Aedeagus larger, with short central tooth at apical orifice, in dorsal aspect cones not covered by apical orifice, parameres relatively shorter, one fourth as long as total length of aedeagus .......... S. admirabilis spec. nov.

Etymology: The species is named in honour of its collector, Michael v. Tschirnhaus, who sampled it on his trip to Venezuela.
Irmler, U.: The Neotropical species of the genus Somoleptus Sharp, 1885

16. Eyes prominent; head egg-shaped with elongate semi-circular posterior part .................................................. S. maximus spec. nov.
   - Eyes not prominent; head with sub-rectangular posterior angles or shortly semi-circular shape ............................. 17

17. Posterior angles of head sub-rectangular, without interantennal furrows; parameres of aedeagus broad, cones at apical orifice triangular .............................................................................. S. elongatus spec. nov.
   - Posterior angles of head indistinct; posterior part shortly semi-rectangular, parameres slenderer, cones at apical orifice extremely short; not triangular ................................................ S. tschirnhausi spec. nov.

18. Smaller, distinctly shorter than 4.0 mm ........................................................................................................ 19
   - Larger, between 4.0 mm and 5.6 mm length .................................................................................................. 24
19. Head pentagonal; behind eyes convergent; eyes distinctly prominent ............................................. S. oculatus spec. nov.
   - Postocular sides parallel or only slightly triangular, posterior angles more widely rounded, semi-circular; eyes not or very slightly prominent ................................................................. 20
20. Eyes relatively short, PS : E ratio 4.1, pronotum longer than elytra, colouration black ................. S. pecki spec. nov.
   - Eyes longer, elytra as long as pronotum, at least pronotum lighter brown ........................................... 21
21. Eyes large, prominent, postocular side 2.5 times as long as eyes; cones at apical orifice long, most part within central lobe ................................................................. S. subtilis (ERICHSON 1839)
   - Eyes shorter, PS : E ratio minimum 2.9, cones at apical orifice outside central lobe .............................. 22
22. Head without sub-rectangular angles; angles combined with posterior margin semi-circular, 3.8 mm long ....
   - .................................................................................................................................................. S. obsoletus SHARP, 1885
   - Head with sub-rectangular angles ...................................................................................................... 23
23. Larger, 3.7 mm long, elytra as long as pronotum, punctures deeper ............................................. S. punctulatus SHARP, 1885
   - Smaller, 3.2–3.3 mm long, pronotum longer than elytra, punctuation finer ........................................ S. parvulus SHARP, 1885
24. Eyes short, PS : E ratio at least 4.6 ........................................................................................................... 25
   - Eyes larger, PS : E ratio maximum 4.0 .................................................................................................... 26
25. Postocular sides parallel, elytra totally light brown, posterior margin of male sternite VII straight, cones at apical orifice long, nearly half as long as total length of aedeagus (C : A ratio 0.45) ........ S. columbicus BERNHAUER, 1915
   - Postocular sides divergent, elytra dark with light brown base, posterior margin of male sternite VII triangularly prominent, cones at apical orifice of aedeagus minute, C : A ratio 0.08 .............. S. cavicola (BLACKWELDER, 1943)
26. Unicoloured, black, or dark brown ........................................................................................................ 27
   - Bicoloured, at least pronotum light yellow or yellow-brown, elytra black or darker brown ................ 28
27. Totally yellow-brown with elytra slightly darker, cones at apical orifice of aedeagus short, posterior margin of sternite VII of male triangularly prominent, paramere bilobed with slender inner lobe ................................................................. S. longicollis (LECONTE, 1863)
   - Pronotum yellow, head and elytra darker blackish or black, cones at apical orifice much longer, posterior margin of male sternite VII straight, paramere not bilobed ................................................. 29
28. Pronotum light yellow, postocular sides long, PS : E ratio 3.2, parameres extremely long, nearly as long as total length of aedeagus ................................................................. S. laevis BERNHAUER, 1908
   - Pronotum yellow-brown, postocular sides shorter, 2.5 times as long as eyes, parameres shorter, triangular ........ S. pulcher BERNHAUER, 1935
29. Eyes large, prominent, PS : E ratio 2.4 to 2.8 ......................................................................................... 30
   - Eyes relatively smaller, PS : E ratio 3.3 to 4.3 .......................................................................................... 31
30. Head elongate; length : width ratio 1.4 .................................................................................................. 32
   - Head shorter; length : width ratio maximum 1.33 .................................................................................. 33
31. Smaller, 4.0–4.2 mm long ......................................................................................................................... 34
   - Larger species of minimum 4.4 mm ......................................................................................................... 35
32. Totally dark brown; posterior margin of male sternite VII triangularly prominent, paramere bilobed with slender inner lobe ................................................................. S. sparsus SHARP, 1885
   - Elytra lighter brown with posterior angles of nearly yellow, margin of male sternite VII with triangular emargination combined with pair of long processes .................................................. S. nitidus (SHARP, 1876)
33. Larger, 5.2 mm ........................................................................................................................................ 34
   - Smaller than 5.0 mm ............................................................................................................................. 35
34. Postocular sides parallel; posterior margin of male sternite VII semi-circular, parameres not bi-lobed, triangular  
   ..................................................................................................................................................  S. recurvatus spec. nov.  
   – Postocular sides divergent; posterior margin of male sternite VII straight, parameres bilobed, elongate  
   ..................................................................................................................................................  S. lorentensis spec. nov.  

35. Head densely punctate, interstices between punctures approximately as wide as diameter of punctures, posterior  
   margin of male sternite VII semi-circular or with short triangular acute prominence  ...........................................  36  
   – Head sparsely and finely punctate, interstices between punctures at least twice as wide as diameter of punctures,  
     posterior margin of male sternite VII straight  .........................................................................................  37  

36. Head egg shaped, posteriorly divergent, posterior margin of male sternite VII with triangular acute prominence  
   ..................................................................................................................................................  S. obscurus Sharp, 1885  
   – Head parallel or slightly convergent posteriorly, posterior margin of male sternite VII semi-circular  
   ..................................................................................................................................................  S. humicola spec. nov. 

37. Smaller 4.3 mm long, postocular sides slightly divergent; posterior margin of male sternite VII straight  
   ..................................................................................................................................................  S. beniensis spec. nov.  
   – Larger, at least 4.6 mm long; postocular sides parallel  ..................................................................................  38  

38. Larger, 4.9 mm long, eyes larger and prominent; PS : E ratio 2.4; cones at apical orifice of aedeagus shorter;  
   C : A ratio 0.19 ........................................................................................................................................  S. struyvei spec. nov.  
   – Smaller, 4.6 mm long; eyes shorter and not prominent; PS : E ratio 3.0; cones at apical orifice of aedeagus longer;  
     C : A ratio 0.29 ........................................................................................................................................  S. peruanus spec. nov.  

39. Head distinctly triangular, close to neck, 1.2 times wider as at eyes, punctuation of head deep and dense  
   ..................................................................................................................................................  S. mexicanus spec. nov.  
   – Head parallel or oval ...................................................................................................................................  40  

40. Postocular sides curved, totally black, C : A ratio 0.29 ....................................................................................  S. melanarius spec. nov.  
   – Head approximately parallel or with semi-circular posterior part  .....................................................................  41  

41. Metatarsi long, nearly as long as metatibia .....................................................................................................  S. pallipes Sharp, 1885  
   – Metatarsi shorter, not nearly as long as metatibia ..........................................................................................  42  

42. Smaller species of 4.6 mm length; elytra slightly longer than wide; with weak microsculpture; matt; posterior margin  
   of male sternite VII with broad triangular prominence .................................................................................  S. grandiconus spec. nov.  
   – Larger species of more than 5 mm length, elytra without microsculpture, shiny .............................................  43  

43. Smaller, 5.1 mm; paramere of aedeagus elongate, divided into two lobes, sides of head slightly convexly curved,  
   posterior margin of male sternite VII triangularly prominent, cones small, C : A ratio 0.18 ..........................  S. ashei spec. nov.  
   – Larger, 5.5 mm long, parameres not divided into two lobes, posterior margin of male sternite VII emarginate  
     ..................................................................................................................................................  S. struyvei spec. nov.  

44. Postocular sides parallel, ventral cover of aedeagus oval, parameres shorter, triangular  
   ..................................................................................................................................................  S. aenescens Sharp, 1885  
   – Sides of head behind eyes slightly divergent; ventral cover of aedeagus circular, parameres longer, hook-like  
     ..................................................................................................................................................  S. brooksi spec. nov. 

Discussion

According to Herman (2001), 22 species of the genus Somoleptus are known from the Neotropical and Oriental  
region. Regarding the new combinations listed in Irmler (2021) and given here, at present, 45 species of the genus  
Somoleptus are known from the Neotropical region. According to the rarefaction analysis with the 45 species,  
only few additional species can be expected, because the individual/species curve approach a steady state  
(Fig. 51a). The chao-1 analysis estimates the number of species between 46 and 56 species for the Neotropical  
region. Most of the species are restricted to Central America. In total, 31 species were recorded from Central
South America with 12 species (63%) restricted to this region. In contrast, only 19 species were recorded from North America and 24 species (77%) were restricted to this region. Thus, compared to other regions of the Neotropics, the lowland rainforest seems to be species-poor. The longicollis- and alticola-subgroups are mainly restricted to Central America. Only S. obscurs, S. obsoletus, and S. columbicus from the longicollis-subgroup were also recorded from adjacent South-American regions in Columbia and Venezuela. The species of the longicollis-subgroup are mainly distributed in northern Central America (Mexico, Guatemala) with S. longicollis widely distributed in North America.

None of the Somoleptus species is distributed throughout whole Central and South America as in other staphylinid groups (Irmler & Asenjo 2018). Many species have reduced elytra and are restricted to high mountain regions. This is not only true for the three species S. breviusculus and S. montanus or the admirabilis-subgroup, but also for numerous other species: S. alticola, S. andersoni, S. brevipennis, S. brunnneus, S. columbic, S. curtipennis, S. longiceps, S. ovatus, S. strigulata, and S. triangulus. All these species are not only characterised by short elytra, but also by reduced eyes. Many of them also have an endemic distribution restricted to small mountain regions at high elevations, e.g., S. brevipennis and S. brunnneus. In conclusion, the genus Somoleptus has a high number of endemic species, mostly in high mountain regions. The cause for this high endemism might be the soil dwelling life-form. Nearly all species were found in the litter layer or similar habitats of forests. Nothing is known about the soil depth, where the species were collected. It is known from other species of staphylinids that the soil dwelling living in mountain regions is a precondition for an endemic distribution.

Among both groups, subgroups with certainly closer relation are found: 1) the aenesescens-subgroup with the species S. aenesescens Sharp, 1885, S. beniensis spec. nov., S. pulcher Bernhauer, 1935, and S. recurvatus spec. nov. These species have a very similarly structured cone at the apical orifice of the aedeagus (see Fig. 1d), significantly different from all other species of the genus. The four species have 8 records in Central America and 11 records in South America (Fig. 51b). Three species of the subgroup were only recorded from South America, whereas S. aenesescens mainly occurs in Central America with only one record from the South American country Ecuador. Thus, the species of this subgroup seem to have their centre in South America but spread to Central America. The two closely related sister-species of the admirabilis-subgroup characterised by absent sclerotised endophallus and cone-like processes at apical orifice of the aedeagus only occurs in southern Central America. They are endemic in the high mountain cloud forests between 1500 and 2500 m elevation of the Talamanca-Chiriqui region of Costa Rica and Panama (Fig. 51c). The closer related four species, S. peruanus, S. montanus, S. breviusculus, and S. struyvei, occur from northern South America to Central America with widely separated endemic incidences (Fig. 51c, d). Somoleptus breviusculus and S. montanus are additionally characterised by the absence of hind wings and short elytra. They occur in restricted mountain regions at more than 2500 m elevation, while S. struyvei is restricted to the Guaya region with a high percentage of endemic species (Irmler & Asenjo 2018) and S. peruanus to the western Andean slope in northern Peru and Ecuador. In the large area of the lowland Amazonian rainforest, only two species seem to exist: S. nitidus and S. recurvatus.

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**Fig. 1:** (a) Ratios at head used (*S. longicollis*): Length of eyes (E) versus length of postocular sides (PS); (b) length of process at apical orifice of aedeagus (C) versus length of central lobe of aedeagus (A); structure of process at apical orifice: type in *longicollis*-group (c), type in *aenescens*-subgroup (d), type in *struyvei*-subgroup (e).
Fig. 2–5: Somoleptus laevis (2), S. subtilis (3), S. brooksi (4), S. elongatulus (5), aedeagus (a), paramere (b), sternite VII of male (c), tergite VII of male (d); scale bars: a, c, d = 0.2 mm; b: 0.1 mm.
Fig. 6–11: Somoleptus aenescens (6), S. beniensis (7), S. pulcher (8), S. recurvatus (9), S. andersoni (10), S. loretensis (11); aedeagus (a), paramere (b), sternite VII of male (c), tergite VII of male (d); scale bars: a, c, d = 0.2 mm; b: 0.1 mm.
Fig. 12–15: *Somoleptus curtulus* (12), *S. admirabilis* (13), *S. aegaeformis* (14), *S. nitidus* (15), aedeagus (a), paramere (b), sternite VII of male (c), tergite VII of male (d); scale bars: a, c, d = 0.2 mm; b: 0.1 mm.
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Fig. 16–20: *Somoleptus cavicola* (16), *S. peruanus* (17), *S. montanus* (18), *S. struyvei* (19), *S. breviusculus* (20); aedeagus (a), paramere (b), sternite VII of male (c), tergite VII of male (d); scale bars: a, c, d = 0.2 mm; b: 0.1 mm.
Fig. 21–29: Somoleptus longicollis (21), S. alticola (22), S. maximus (23), S. mexicanus (24), S. pecki (25), S. parvulus (26), S. punctulatus (27), S. obsoletus (28), S. obscurus (29); aedeagus (a), paramere (b), sternite VII of male (c), tergite VII of male (d); scale bars: a, c, d = 0.2 mm; b: 0.1 mm.
Fig. 30–37: Somoleptus columbicus (30), S. curtipennis (31), S. gigas (32), S. sparsus (33), S. oculatus (34), S. melanarius (35), S. obscurus (36), S. grandiconus (37); aedeagus (a), paramere (b), sternite VII of male (c), tergite VII of male (d); scale bars: a, c, d = 0.2 mm; b: 0.1 mm.
Fig. 38–45: Somoleptus brevipennis (38) S. longiceps (39), S. ovatus (40), S. humicola (41), S. triangulus (42), S. ashei (43), S. brunneus (44), S. tschirnhausi (45); aedeagus (a), paramere (b), sternite VII of male (c), tergite VII of male (d); scale bars: a, c, d = 0.2 mm; b: 0.1 mm.
Fig. 46: Somoleptus tschirnhausi (A), S. aenescens (B); S. agraefornis (C); S. alticola (D); S. ashei (E); S. beniensis (F), S. bruneus (G), S. cavicola (H), S. columbicus (I), S. curtulus (J); scale bars: 0.5 mm.
Fig. 47: Somoleptus laevis (A), S. maximus (B), S. mexicanus (C); S. obscurus (D); S. obsoletus (E); S. pallipes (F), S. parvulus (G), S. pecki (H), S. pulcher (I), S. punctulatus (J); scale bars: 0.5 mm.
Fig. 48: Somoleptus strigulata (A), S. subtilis (B); S. recurvatus (C); S. elongatulus (D); S. curtipennis (E); S. gigas (F), S. admirabilis (G), S. sparsus (H), S. longicollis (I), S. melanarius (J); scale bars: 0.5 mm.
Fig. 49: S. grandiconus (A), S. brevipennis (B); S. struyvei (C); S. brooksi (D); S. andersoni (E); S. breviusculus (F); S. oculatus (G); S. longiceps (H), S. ovatus (I), S. peruanus (J); scale bars: 0.5 mm.
Fig. 50: Somoleptus montanus (A), S. humicola (B); S. triangulus (C); S. lorentensis (D); S. nitidus (E); scale bars: 0.5 mm.
Fig. 51: Results of the rarefaction analysis with number of specimens per species of the included dataset (A); distribution of species of the laevis-group: curtulus-subgroup (B), laevis-subgroup (C), and aenescens-subgroup (D).
Fig. 52: Distribution of species of the longicollis-group.