

On some *Stenus* species from Latin America (Coleoptera: Staphylinidae) (292nd Contribution to the knowledge of Steninae)

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ABSTRACT

Sixteen new species of the genus *Stenus* Latreille, 1797 are described: *Stenus (Hypostenus) aces* sp. nov. (Costa Rica), *S. (H.) achates* sp. nov. (Brazil), *S. (H.) ahuitzotl* sp. nov. (Mexico), *S. (H.) ambulabilis* sp. nov. (Guatemala, Mexico, Honduras), *S. (H.) ambulatrix* sp. nov. (Mexico), *S. (H.) calceatus* sp. nov. (Brazil), *S. (H.) chimalpopoca* sp. nov. (Mexico), *S. (H.) cuauhtemoc* sp. nov. (Mexico), *S. (H.) fulgescens* sp. nov. (Mexico), *S. (H.) fulgidulus* sp. nov. (Ecuador), *S. (H.) fulgurator* sp. nov. (Costa Rica), *S. (H.) fulgureus* sp. nov. (Ecuador), *S. (H.) givensi* sp. nov. (Ecuador), *S. (H.) palmipes* sp. nov. (Brazil), *S. (H.) remorator* sp. nov. (Panama), *S. (H.) simplicicollis* sp. nov. (Colombia). New data on described species of the region are presented. A new type of tarsal setae in the genus *Stenus* is described and figured.

KEY WORDS: Coleoptera, Staphylinidae, Steninae, *Stenus*, Latin America.

RESUMEN

Se describen 16 especies nuevas pertenecientes al género *Stenus* Latreille, 1797: *Stenus (Hypostenus) aces* sp. nov. (Costa Rica), *S. (H.) achates* sp. nov. (Brasil), *S. (H.) ahuitzotl* sp. nov. (México), *S. (H.) ambulabilis* sp. nov. (Guatemala, México, Honduras), *S. (H.) ambulatrix* sp. nov. (México), *S. (H.) calceatus* sp. nov. (Brasil), *S. (H.) chimalpopoca* sp. nov. (México), *S. (H.) cuauhtemoc* sp. nov. (México), *S. (H.) fulgescens* sp. nov. (México), *S. (H.) fulgidulus* sp. nov. (Ecuador), *S. (H.) fulgurator* sp. nov. (Costa Rica), *S. (H.) fulgureus* sp. nov. (Ecuador), *S. (H.) givensi* sp. nov. (Ecuador), *S. (H.) palmipes* sp. nov. (Brasil), *S. (H.) remorator* sp. nov. (Panamá), *S. (H.) simplicicollis* sp. nov. (Colombia). Se proporcionan además datos nuevos sobre especies descritas de la región. Se describe e ilustra un tipo nuevo de sedas tarsales presentes en especies de *Stenus*.

PALABRAS CLAVE: Coleoptera, Staphylinidae, Steninae, *Stenus*, Latinoamérica.

INTRODUCTION

Four hundred species of the genus *Stenus* Latreille, 1797, which has a worldwide distribution, have already been described from the Neotropical region, most of them (243) belonging to the subgenus *Hypostenus* Rey (mainly plant climbers). In this paper I describe 16 new species both from Central and from South America. In the discussions of the respective species I give information (from my files) on the distribution of already described species. One of the new species is of special interest: *Stenus calceatus* sp. nov. is the first *Stenus* with "tarsal shoes" consisting of dilated tarsal setae with adhesive microstructures.

Abbreviations: aE = average distance between eyes; HT = holotype; lEl: greatest length of elytra; lP = length of pronotum; lS = length of suture; PM = proportional measurements, (1 unit = 0,025 mm); PT = paratype; wEl = greatest width of elytra; wH = width of head; wP = width of pronotum.

Acronyms for museums and private collections: CNC = Canadian National Collection, Ottawa; cP = coll. Puthz; FMCh = Field Museum of Natural History, Chicago; IRSNB = Institut royal des Sciences Naturelles de Belgique, Brussels; MNHP = Muséum National d'Histoire naturelle, Paris; NHMK = Natural History Museum Kansas, Lawrence Ks; USNM = U. S. National Museum, Washington, D. C., ZML = Zoological Museum of the Lund University. Distribution for some species was based on Navarrete-Heredia *et al.* (2002).

TAXONOMIC PART

Stenus (Hypostenus) givensi sp. nov.

Description: Black, shiny, head moderately coarsely and densely punctate, pronotum and elytra coarsely and densely punctate, abdomen with the punctation moderately coarse and moderately dense anteriorly, fine and sparse posteriorly; pubescence distinct, recumbent. Antennae yellowish, club light brown. Maxillary palpi yellow. Legs yellowish brown, apical portions of femora somewhat infuscate. Clypeus black, labrum brownish, densely pubescent.

Tergite 10 narrowed into a small apical fork.

Length: 2.8-3.3 mm (forebody: 1.5 mm).

PM of HT: wH: 26; aE: 13; wP: 20; IP: 21.5; wEl: 29; lEl: 28; IS: 23.5.

Male: Sternite 7 with a shallow apical emargination. Sternite 8 (Fig. 2). Sternite 9 (Fig. 3) with long apico-lateral teeth and few long apico-lateral setae. Aedeagus (Fig. 1), median lobe lanceolate, parameres slightly longer than median lobe, with 8 apical setae.

Female: Sternite 8 broadly rounded. Valvifer with a long apico-lateral tooth.

Type Material: Holotype (♂) and 1 ♂, 2 ♀♀-paratypes: ECUADOR: Napo: Limoconcha, pasture pond, 13.VI.1977, P. J. Spangler & D. R. Givens # 116. HT and PT in USNM, 1 PT in cP.

Discussion: This new species belongs to the group of *Stenus arculus* Casey (species with tergite 10 forked: e. g. Fig. 14). Among the species of this group it resembles *S. bakeri* Bernhauer (Cuba), *S. schmidtii* L. Benick (Costa Rica, Honduras, Belize, Guatemala, Mexico), *S. frequens* L. Benick (Mexico), *S. alumnus* Sharp (Mexico, Guatemala, Costa Rica) and *S. segnis* L. Benick (Panama, Costa Rica), from which it may be distinguished by the fine and sparse punctation of the posterior abdomen, five distinct shining areas on the frons and the male sexual characters. *S. givensi* also resembles several species of the group of *S. frontalis* Erichson, but is at first glance distinguished by the peculiar shape of tergite 10.

Etymology: The new species is named after one of its collectors.

Stenus (Hypostenus) ambulatrix sp. nov.

Description: Black, shiny, head moderately finely and densely punctate, pronotum moderately coarsely and densely punctate, elytra moderately coarsely and moderately densely punctate, abdomen moderately finely (anteriorly) to very finely (posteriorly), moderately sparsely punctate; pubescence distinct, short, recumbent. Base of antennae yellowish brown, club brown. Maxillary palpi yellowish, segment 3 infuscate in apical half. Legs reddish yellow, apices of femora brownish. Clypeus black, labrum dark brown, densely pubescent. Tergite 10 forked apically.

Length: 2.9-3.3 mm (forebody: 1.7 mm).

PM of HT: wH: 26; aE: 13; wP: 23; IP: 24; wEl: 34.5; lEl: 32.5; IS: 26.

Male: Metasternum broadly impressed, coarsely and densely punctate. Sternites 6 and 7 finely and densely punctate medially, sternite 7 with a shallow apical emargination. Sternite 8 (Fig. 9). Sternite 9 (Fig. 5), apico-lateral teeth less developed than in *S. ambulator* Sharp (see Fig. 4), apico-lateral brush shorter. Aedeagus (Fig. 6) about as in *S. ambulator*, structure of membranous internal sac different (Fig. 7, compare Fig. 8), parameres shorter than median lobe, with 10 apical setae.

Female: Sternite 8 very broadly rounded. Valvifer with a distinct tooth apico-laterally.

Type Material: Holotype (♂) and 1 ♀-paratype: MEXICO: Veracruz: 32 mi SW Acayucan, on *Pistia stratiotes*, 11.VIII.1974, C. & L. O'Brien & Marshall. HT in USNM, PT in cP.

Discussion: This new species, too, belongs to the *arculus*-group and is the sister species of *S. ambulator* Sharp (Mexico, Guatemala), which it resembles in most respects. It may be distinguished from it by smaller size, broader elytra, differently shaped posterior portion of the 9th sternite and the structure of the internal sac of the aedeagus. Both species are distinguished from most of their relatives by the reticulation of the abdomen (distinct on tergites 7-10). Furthermore *S. ambulatrix* may be distinguished from *S. capucinus* Boheman (Mexico, Guatemala, Belize, Costa Rica, Panama, Venezuela) by larger shiny areas on the frons and a more finely punctate abdomen, from *S. eremitus* Sharp (Mexico) by broader and less densely punctate elytra, finer and sparser abdominal punctation, from *S. eremitoides* Puthz (U.S.A.: Tex, III; Mexico: TMLS), *S. spanglerianus* Puthz (Guatemala, Belize) and *S. mestiza* Puthz (Ecuador) by less densely punctate elytra and abdomen, from all these species by the male sexual characters.

Etymology: The name refers to a close relationship to *S. ambulator* (Lat. *ambulatrix* = a female wanderer).

Stenus (Hypostenus) ambulabilis sp. nov.

Description: Black with some aeneous tint, moderately shiny, head coarsely and densely punctate, pronotum and elytra very coarsely, densely punctate, abdomen very coarsely (anteriorly) to moderately coarsely (posteriorly) punctate; pubescence short, recumbent. Base of antennae reddish yellow, individual segments narrowly infuscate apically, club brown. Maxillary palpi yellow, segment 3 slightly infuscate. Legs light brown, apical half of femora and apices of tarsal segments infuscate. Clypeus black, labrum dark brown, densely pubescent. Tergite 10 forked apically (Fig. 14).

Length: 3.2-3.9 mm (forebody: 1.9 mm)

Male: Femora distinctly dilated. Metasternum broadly impressed, coarsely and very densely punctate. Sternite 6 depressed along middle, finely and densely punctate on lateral portions of depression, less densely so on middle, sternite 7 with a faint median depression, of which the sides are very densely and finely punctate and convergently pubescent, posterior margin shallowly emarginate. Sternite 8 (Fig. 13). Sternite 9 (Fig. 11). Aedeagus (Fig. 10), median lobe laterally compressed apico-dorsally forming a sharp lancet, parameres slightly shorter than median lobe, with about 9 apical setae.

Female: Sternite 8 broadly rounded. Valvifer with a short tooth apico-laterally.

PM of HT: wH: 30; aE: 15; wP: 23; IP: 24.5; wEl: 36; lEl: 35; IS: 27.

Type Material: Holotype (♂) and 2 ♂♂, 6 ♀♀-paratypes: GUATEMALA: Solola: 2 km N Panajachol, 1700 m, beating the vegetation, tropical montane forest, 15.XI.1991, R. Baranowski. Paratypes: 2 ♂♂, 2 ♀♀: ibidem, 19.XI.1991; 1 ♀: 4 km N Panajachel, 1900 m, sifting litter near small stream, tropical montane forest, 14.XI.1991; 1 ♂: Baja Verapaz: 8 km SSW Purulha, 1650 m, evening sweeping, wet montane forest, 23.XI.1991; 1 ♀ ibidem, treading the vegetation under water in pools, wet montane forest, 1.XII.1991 (together with 2 ♂♂, 1 ♀ *S. ambulator* Sharp); 1 ♀: Puerta Parada near Guatemala City, 1840 m, in litter near small stream, mixed *Cupressus* forest, 10.XI.1991; 1 ♂, 1 ♀: 5 km E Antigua Guatemala, 1780 m, sifting litter near small stream in ravine, tropical montane forest, 5.XII.1991; 1 ♂, 3 ♀♀: ibidem, 6.XII.1991; 1 ♂: Quiché: 5 km S. Chichicastenango, 2000 m, sifting litter, pine-oak forest, 19.XI.1991: all leg. R. Baranowski. MEXICO: 1 ♂: Chiapas: Hwy 24, 9 mi SE Teopisca, 16.V.1969, J.M. Campbell. HONDURAS: 2 ♂♂: Francisco Morezán, 12 km W Zamorano, Cerro Uyuca, 1870 m, 14°02'N, 87°05'W, grass trimmings, 9.VI.1994, # 052; 1 ♂: Ocotepece 11 km E Ocotepece, 1470 m, 14°30'N, 89°02'W, pine slash/treefall, 16.VI.1994, # 130; 1 ♂: Lempira, 13.1 km NE & 7.3 km E Gracias, Mt. Puca, 1320 m, 14°41'N, 88°31'W, fungi under log, 18.VI.1994, # 143; 1 ♂, 2 ♀♀: El Paraiso, 6.9 km W Yuscarán, Cerro Montserraz, 1760 m, 13°55'N, 86°54'W, slash, 27.VI.1996, # 231: all leg. Ashe & Brooks.- HT and PTT in ZML, PTT also in CNC, NHMK and cP.

Discussion: Also this new species belongs to the *arculus*-group. It is the sister species of *S. bajulus* Sharp (Mexico, Guatemala). It most resembles *S. bajulus* and *S. consentaneus* L. Benick (Costa Rica, Guatemala, Mexico); from the first it may be distinguished by the broader elytra and less concave frons, from the latter by broader and less concave frons. From other similar species of the group it can be distinguished as follows: from *S. bakeri* Bernhauer, *S. alumnus* Sharp, *S. givensi* sp. nov., *S. schmidtii* L. Benick and *S. segnis* L. Benick by greater body size, from *S. paludivagus* Puthz (Cuba) by broader and more densely punctate elytra, from *S. pinniger* L. Benick (Costa Rica) by broader frons and coarser abdominal punctation, from *S. frequens* L. Benick by coarser punctation and shiny (not reticulate) interstices on tergite 7, from *S. docilis* Sharp (Guatemala, El Salvador) by broader elytra, from *S. ambulator* Sharp and its close relatives by the much denser punctation and shiny interstices on tergite 7, from all these species by the male sexual characters.

Etymology: The name refers to the relationship to *S. ambulator* Sharp (Lat. *ambulabilis* = to be fit to walk around).

Stenus (Hypostenus) ahuitzotl sp. nov.

Description: Black, strongly shiny, head moderately finely, sparsely punctate, pronotum coarsely and sparsely punctate, elytra coarsely and (except several large shiny areas) densely punctate, abdomen coarsely (tergite 3), finely (tergites 4, 5) to very finely (tergites 6-10) and very sparsely punctate; pubescence distinct, recumbent. Base of antennae yellowish brown, club infusate. Maxillary palpi yellow. Legs yellowish brown, nearly all of apical half of femora abruptly brown, apical half of femora and apices of tarsal segments slightly infusate. Clypeus black, labrum dark brown, moderately densely pubescent. Tergite 10 narrowed into a small apical fork (as in Fig. 14), prongs bent upwards.

Length: 3.1-3.6 mm (forebody 1.7 mm).

Male: Metasternum depressed, moderately coarsely and densely punctate in middle, punctation in lateral areas much sparser. Sternites 3-5 somewhat more sparsely punctate medially than laterally, median punctation on sternite 6 similar to lateral punctation, sternite 7 with a shallow impression on posterior two thirds, which is very finely and very densely punctate and pubescent, posterior margin moderately shallowly emarginate. Sternite 8 (Fig. 17). Sternite 9 (Fig. 16). Aedeagus (Fig. 15), median lobe with a prominent, apically rounded apical portion, which is distinctly separated from the anteriorly dilated basal portion. Internal structures consisting of membranes densely set with chitinized tufts and with the group-specific flat lasso-like expulsion tube. Parameres slightly longer than median lobe, wide basally, narrowed apically, with about 7 apical setae.

Female: Unknown.

Head distinctly narrower than elytra (29.5: 34), frons moderately broad (aE: 14) with two deep longitudinal furrows, median portion as broad as each of the side portions, strongly elevated, extending slightly beyond the level of inner eye margins. Most of the frons impunctate, shiny, punctation in longitudinal furrows, near inner eye margins and (few punctures) on lateral portions behind antennal tubercles dense, moderately fine, diameter of punctures about as large as basal cross section of antennal segment 3. Antennae moderately slender, extending nearly to the posterior margin of the pronotum when reflexed, penultimate segments slightly longer than broad. Pronotum slightly longer than broad (22.5: 21), broadest behind middle, sides nearly straightly convergent anteriorly, distinctly concave posteriorly; a narrow transverse constriction near anterior margin and a pronounced postero-lateral impression present. Punctation coarse and (except for five shining areas, of which the median area is broader than the median portion of frons) dense, diameter of punctures sometimes as large as apical cross section of antennal segment 2, interstices narrower than half diameter of punctures. Elytra slightly trapezoid, distinctly broader than head (34: 29.5) and distinctly broader than long (34: 31.5), shoulders rectangular, sides widened posteriorly, strongly constricted in posterior third, posterior margin broadly emarginate (IS: 23); sutural and humeral impressions distinct, a depression on postero-lateral quarter. Punctation coarse, about as coarse as on pronotum, irregular, very dense in postero-humeral area and in an area on postero-lateral quarter, on the remainder of surface moderately dense to sparse, distinct impunctate areas near suture in anterior half and about in middle (this area and an area medially on anterior half somewhat elevated). Abdomen cylindrical, basal constrictions of segments deep, segment 7 with a broad membranous fringe apically (the insect is fully winged). Punctation sparse to very sparse, coarse punctures only on tergite 3. Legs slender, length of metatibiae: length of metatarsi = 19: 33, segment 1 of metatarsi slightly longer than the following two segments combined, about as long as the last segment; segment 3 slightly, segment 4 deeply bilobed. On the whole surface microsculpture absent.

Type Material: Holotype (♂): MEXICO: Guerrero: 91.4 km Jct. Route 200 on Route 134 to Ciudad Altamirano, 1100 m, streamside litter, 30. VII. 1992, J. S. Ashe & H. Frania # 148: in NHMK.

Discussion: This new species belongs to the *arculus*- group where it most resembles *S. exulans* Sharp (Guatemala, Mexico) because of the irregular elytral punctation, but it may be distinguished by the predominantly light coloured legs, denser elytral punctation and the male sexual characters. From the other species of the *arculus*- group with bicoloured femora it may be distinguished as follows: from *S. remotus* Sharp (Mexico, Guatemala, Belize) and *S. remorator* sp. nov. (Panama) by less coarse punctation of pronotum and elytra and broader elytra, from *S. laetipes* Sharp (Mexico, Guatemala, Costa Rica) and *S. arenarius* L. Benick (Costa Rica) by the irregular elytral punctation and very fine abdominal punctation, from all these species by the male sexual characters.

Etymology: Named after Ahuizotl, leader of the Aztecs in 1486.

Stenus (Hypostenus) remorator sp. nov.

Description: Black, strongly shiny, head moderately coarsely, sparsely punctate, pronotum coarsely and sparsely punctate, elytra coarsely and moderately densely punctate, abdomen moderately coarsely (tergite 3) to very finely (last tergites) punctate; pubescence distinct, recumbent. Base of antennae light brown, club slightly infuscate. Maxillary palpi yellow. Legs yellowish, apical half of femora brown, apical half of tibiae and apices of tarsal segments infuscate. Clypeus black, labrum dark brown, densely pubescent. Tergite 10 narrowed into as small apical fork, prongs bent upwards.

Length: 3.2-3.8 mm (forebody 1.9 mm).

PM of HT: wH: 30; aE: 15; wP: 22; IP: 24; wEl: 33; lEl: 32; IS: 27.

Male: Sternites 3-6 impunctate in posterior median area, shallowly emarginate posteriorly, sternite 7 with a shallow, finely and densely punctate median impression, posterior margin moderately shallowly emarginate. Sternite 8 (Fig. 20). Sternite 9 (Fig. 19), apico-lateral brush thin, 2/5 as long as the sternite. Aedeagus (Fig. 18), median lobe lancet-shaped, internal sac with a strongly sclerotized bottle-shaped structure basally and membranes densely set with short spines and tufts and a long lasso-like expulsion tube; parameres shorter than median lobe, with 9 long setae.

Female: Sternite 8 broadly rounded. Valvifer with an acute tooth apico-laterally.

Type Material: Holotype (♂) and 1 ♂, 1 ♀-paratypes: PANAMA: Chiriqui: 3 km N David, Rio Majagua at Balneario Majahua, spring seepage at waterfall, 31. V. 1983, P. J. Spangler, R. A. Faitoute & W. E. Steiner; 1 ♀-paratype: 9 km N David, waterfall at Balneario San Francisco, 31. V. 1983, idem; 1 ♂, 1 ♀-paratypes: Caldera, Champion ("remotus var." det. Sharp). HT and 2 PTT in USNM, PTT also in NHML and cP.

Discussion: This new species belongs to the *arculus*-group, too, and is the sister species of *S. remotus* Sharp, from which it may be distinguished by slightly less coarse, less dense elytral punctation and especially by the male sexual

characters: in *S. remotus* the strongly sclerotized inner structure of the median lobe is shorter, nearly equally broad, not bottle-like narrowed and open distally. From the other species of the group with bicoloured femora it may be distinguished as follows: from *S. arenarius* L. Benick and *S. laetipes* Sharp by smaller size and less dense punctation of pronotum and elytra, from *S. actephilus* L. Benick by much sparser elytral punctation, from *S. ahuitzotl* sp. nov. by much more regular punctation of the elytra, from all these species by the male sexual characters.- Two paratypes were found in Sharp's collection as "*remotus* var."

Etymology: The name refers to a close relationship with *S. remotus* Sharp (Lat. *remorator* = a hesitator).

***Stenus (Hypostenus) chimalpopoca* sp. nov.**

Description: Black, moderately shiny with a faint metallic hue, coarsely and very densely punctate throughout; pubescence distinct, short, recumbent. Antennal base light brown, club infuscate. Maxillary palpi yellowish, segment 3 light brown. Legs brown, apices of femora narrowly dark brown. Clypeus black, labrum dark brown, densely pubescent. Tergite 10 narrowed into a prominent median tip.

Length: 2.9-3.1 mm (forebody: 1.6 mm).

PM of HT: wH: 25; aE: 12.5; wP: 22.5; IP: 22; wEl: 33; lEl: 31; IS: 25.

Male: Femora strongly dilated. Sternite 8 with an acute triangular notch nearly in posterior half (length of sternite: depth of emargination = 18:7.5). Sternite 9 with a short tooth apico-laterally. Aedeagus (Fig. 12), median lobe triangularly narrowed, internal sac with numerous strongly sclerotized hooks, parameres distinctly longer than median lobe, triangularly dilated apically, with 14-15 apical setae.

Female: unknown.

Type Material: Holotype (♂): MEXICO: Oaxaca: Oaxaca, 25.VIII.1965, P. J. Spangler: in USNM.

Discussion: This new species belongs to the group of *S. punctatus* Erichson and is the sister species of *S. pueblanus* Bernhauer (Mexico, Nicaragua, U.S.A.: Arizona), from which it may be distinguished by the slightly shorter elytra and by the male sexual characters: in *S. pueblanus* the femora are much less dilated, sternite 8 has an apical notch in posterior third, and the parameres are much longer than the median lobe and dilated in about anterior third (Fig. 21, Puthz, 1971). From *S. cubensis* Bernhauer (Cuba, U.S.A.: Tex, La, Miss, Ala, Ill, N.Y., N. J., Md, Va, Ga, Fla) it may be distinguished by broader and more densely punctate elytra and the simple apical tip of tergite 10, from *S. punctatus* Erichson (U.S.A.: widely distributed; Canada: Que, Ont; Mexico: DGO, NL, TAMPS) by broader elytra, more distinctly elevated median portion of frons and the absence of microsculpture on the last tergites, from both by the male sexual characters.

Etymology: The name is taken from Chimalpopoca, elected Chief Speaker of the Aztecs in early 15th century.

***Stenus (Hypostenus) palmipes* sp. nov.**

Description: Black, shiny with some aeneous tint, very coarsely, densely punctate; pubescence sparse. Antennae brownish at base, club infuscate. Maxillary palpi yellowish, segment 3 brownish. Legs reddish brown, apices of femora blackish. Clypeus black, labrum dark brown, densely pubescent. Tergite 10 (Fig. 22) irregularly serrated at apical margin.

Length: 4.5-4.0 mm (forebody 2.5 mm).

PM of HT: wH: 39; aE: 18; wP: 32; IP: 35; wEl: 45.5; lEl: 43; IS: 36.

Male: Metafemora strongly triangularly clubbed, metatibiae strongly compressed, dilated and bent in apical half (Fig. 32), segment 1 of meso- and metatarsi strongly dilated and densely pubescent (compare Figs 27-30). Sternite 6 slightly more densely punctate medially than laterally. Sternite 7 densely punctate and pubescent medially. Broadly rounded posterior margin of tergite 8 distinctly prominent. Sternite 8 with a very broad, nearly semicircular emargination in about posterior ninth. Sternite 9 strongly dilated in anterior half, with a short and distinct tooth apico-laterally. Aedeagus principally as in the close relatives, apical portion of median lobe (Fig. 21) bent to the right (ventral view), few more strongly sclerotized structures in apical half, left paramere broadly rounded apically.

Female: unknown.

Type Material: Holotype (♂): "Brésil", ex coll. Fauvel (*monstrosipes* Fauv. in litt.): in IRSNB.

Discussion: This new species belongs to the group of *Stenus aeneas* Puthz (Puthz, 1984: 91 ff.) and is the sister species of *S. ogloblini* Bernhauer (syn. *alcathous* Puthz). In my key to the species of this group the new species has to be inserted at couplet 21(20). It may be distinguished from *S. operosus* Erichson by the male sexual characters, from *S. aeneas* Puthz by broader elytra and distinctly coarser punctation of pronotum and elytra, from *S. ogloblini* by very weak, nearly indistinct impressions of elytra and slightly less coarse punctation of the forebody, from all these species by the

male sexual characters.

Etymology: Named after the markedly dilated metafemora of the male (Lat. *palma* = flat hand, *pes* = foot).

***Stenus (Hypostenus) acestes* sp. nov.**

Description: Black, shining with some aeneous tint, very coarsely, densely punctate; pubescence distinct, recumbent. Antennal base light brown, club brown. Maxillary palpi yellowish, segment 3 light brown. Legs light brown, apices of femora and of tarsal segments infuscate. Clypeus black, labrum brown, densely pubescent. Tergite 10 (Fig. 24) with regularly serrate and slightly emarginate posterior margin.

Length: 4.0-4.5 mm (forebody: 2.3 mm).

PM of HT: wH: 34.5; aE: 17.5; wP: 30.5; IP: 32; wEl: 46; lEl: 45; IS: 37.

Male: Femora strongly subtriangularly dilated, metatibiae slightly compressed and moderately dilated in bent apical half, segment 1 of tarsi slightly (protarsi) to strongly (metatarsi) dilated, segment 1 of metatarsi twice as broad as segments 2 and 3. Aedeagus principally as in the close relatives, apical portion of median lobe (Fig. 23) triangular and slightly bent to the left (in ventral view), right paramere much longer than median lobe.

Female: unknown.

Type Material: Holotype (♂): COSTA RICA: Puntarenas, 22.VII.1965, P.J.Spangler: in USNM.

Discussion: This species, too, belongs to the *aeneas* group, where it resembles several species. It may be distinguished from *S. latinus* Puthz (Bolivia, Peru, Ecuador), *S. ascanius* Puthz (Bolivia, Paraguay) and *S. julus* Puthz (Trinidad) by the differently shaped aedeagus. In my key to the group the new species would key out at couplet 21(20), where it may be distinguished by the shape of tergite 10, or at couplet 32 (31), where the male sexual characters are the distinguishing characters.

Etymology: Named after Acestes, king of Sicily in Vergil's Aeneid.

***Stenus (Hypostenus) achates* sp. nov.**

Description: Black, shiny with some aeneous tint, coarsely and densely punctate; pubescence sparse. Base of antennae light brown, club brown. Maxillary palpi reddish yellow, segment 3 light brown. Legs reddish brown, apices of femora and of tarsal segments infuscate. Clypeus black, labrum brown, densely pubescent. Tergite 10 (Fig. 26) regularly serrate at semicircularly rounded posterior margin.

Length: 3.6-4.3 mm (forebody: 2.3 mm).

PM of HT: wH: 35.5; aE: 18.5; wP: 29.5; IP: 32.5; wEl: 46; lEl: 42; IS: 33.

Male: Femora dilated (but not triangular), metatibiae compressed and slightly dilated and bent in apical half, segment 1 of metatarsi about as broad as segment 2. Sternite 6 slightly denser punctate medially than laterally, sternite 7 very densely punctate and pubescent medially, posterior margin very shallowly emarginate. Tergite moderately prominent at broadly rounded posterior margin. Sternite 8 very broadly emarginate in about posterior sixth. Sternite 9 distinctly dilated in anterior half, with a short apico-lateral tooth. Aedeagus very close to that of *S. palinurus* Puthz (Fig. 25, compare Fig. 49, Puthz, 1984), but the apical portion less concave at right lateral margin and with the transverse sclerotized structure in apical half differently shaped.

Female: Sternite 8 with a broad, rounded projection apically. Valvifer with a short apico-lateral tooth.

Type Material: Holotype (♂) and 3 ♀♀-paratypes: BRAZIL: Ega. HT and PTT in IRSNB (coll. Fauvel), 1 PT in cP.

Discussion: This new species also belongs to the *aeneas*-group, where it is the sister species of *S. palinurus* Puthz (Ecuador). It may be distinguished by the much broader elytra, distinct shining areas on lateral portions of frons, by distinctly dilated metafemora and more deeply emarginated sternite 8 of the male and by the aedeagus. In my key to the group the new species would key out at couplet 10 (7).

Etymology: Named after Achates, friend of Palinurus in Vergil's Aeneid.

***Stenus (Hypostenus) cuauhtemoc* sp. nov.**

Description: Black, shiny, head moderately finely and moderately densely punctate, pronotum and elytra coarsely and moderately densely punctate, abdomen coarsely (anteriorly) to finely (posteriorly) punctate; pubescence distinct, golden, dense on elytral base and on abdomen, recumbent. Antennae yellowish brown. Maxillary palpi yellow. Legs reddish yellow, apical third of tibiae and apices of tarsal segments blackish. Clypeus black, labrum brownish, densely pubescent. Tergite 10 spadeous (Fig. 36).

Length: 3.9-4.7 mm (forebody: 2.2 mm).

Head distinctly narrower than elytra (31: 38.5), frons broad (aE: 17) with distinct longitudinal furrows, shiny median portion as broad as each of the side portions, broadly elevated, extending beyond the level of inner eye margins, punctation moderately fine and dense, diameter of punctures slightly smaller than basal cross section of antennal segment 3, interstices mostly smaller than half diameter of punctures except on large impunctate areas: antennal tubercles, an area near posterior eye-margin and on median portion. Antennae slender, last two segments extending beyond the posterior margin of pronotum when reflexed, penultimate segments twice as long as broad. Pronotum distinctly longer than broad (30: 25.5), sides moderately convex, posterior constriction distinct but not strong; no impressions; three conspicuous shiny areas (in middle and on each side of the middle) about as broad as 3-4 punctures combined, punctation on the remaining surface coarse and dense, diameter of punctures about as large as apical cross section of antennal segment 3, interstices narrower than half the diameter of punctures. Elytra subquadrate, distinctly broader than head (38.5: 31), longer than broad (40.5: 38.5), shoulders rectangular, sides slightly convex, apical margin broadly emarginate (IS: 35); sutural impression distinct anteriorly, humeral impressions faint, a slight depression postero-laterally. Punctation coarse and moderately dense, punctures about as large as apical cross section of antennal segment 2, interstices nearly half as large as diameter of punctures, sometimes larger. Abdomen cylindrical, basal constrictions of segments deep, tergite 7 with a broad membranous fringe apically (the species is fully winged). Punctation coarse and dense (anteriorly) to fine and sparse (posteriorly), sparser on each tergite medially, punctures of tergite 7 about as large as one inner ommatidium, interstices about twice as large as punctures. Legs slender, metatarsi about two fifth as long as metatibiae (26: 40), segment 1 distinctly shorter than the three following segments combined, much longer than the last segment (11-(13)-7). Reticulation only present on tergites 7-10.

Male: Sternite 7 finely and densely punctate in posterior middle. Sternite 8 with a triangular excision in about posterior sixth. Sternite 9 with acute teeth and a long brush of setae apico-laterally. Aedeagus (Fig. 33), median lobe curved in lateral aspect, internal structures moderately strongly sclerotized, parameres very slender, about as long as median lobe, with an acute apical apodem (Fig. 35) and 15-16 apical setae.

Female: Unknown.

Type Material: Holotype (♂): MEXICO: Chiapas: 7 km N Ocosingo, Rio Contenido, 20.V.1981, P. J. Spangler; 1 ♀-paratype: Veracruz: Alvarado, 28.VII.1951, Drake & Hottes. HT in USNM, PT in cP.

Discussion: The position of this new species is not clear. Based on the shape of tergite 10 and of the aedeagus it seems to be close to *S. ardoricola* Puthz (U.S.A.: Ariz, N. Mex, Cala; Mexico: JAL, MICH), (from which it may be distinguished by the much sparser punctation of abdomen and the remarkable shining areas on pronotum. It also resembles species of the *jugalis*-group, but has a different morphology of the aedeagus. From *S. jugalis* Erichson (Brazil), it may be distinguished by a more strongly convex frons, large shining areas on pronotum and the reticulate tip of abdomen. Probably it belongs to the *denticollis*-group (*sensu lato*) (*S. bullipennis* Puthz and *S. scruposus* Puthz, both from Mexico, from which it may be distinguished at once by the totally different sculpture of pronotum and elytra). Some resemblance can also be found to species of the *metallescens*-complex (shining areas on pronotum, arrangement of pubescence). Preliminarily, it should be placed at the end of the *denticollis*-group.

Etymology: The name is taken from Cuauhtémoc, named last Chief Speaker of the Aztecs (1521).

Stenus (Hypostenus) fulgurator sp. nov.

Description: Black, strongly shiny, head moderately coarsely and sparsely punctate, pronotum coarsely and densely punctate, elytra very coarsely, moderately densely punctate, abdomen moderately coarsely and finely (anteriorly), very finely (posteriorly), very sparsely punctate; pubescence sparse, recumbent. Base of antennae reddish yellow, club infusate. Maxillary palpi yellowish. Legs reddish yellow, apices of femora distinctly, bases of tibiae slightly infusate. Clypeus black, labrum dark brown, moderately densely pubescent. Tergite 10 (Fig. 37) very broad and broadly rounded at smooth posterior margin.

Length: 3.3-3.9 mm (forebody 2.1 mm).

Head distinctly narrower than elytra (32.5: 36), frons moderately broad (aE: 17) with two deep longitudinal furrows, median portion nearly as broad as each of the side portions, strongly elevated, fully extending to the level of inner eye margins. Punctation present only in longitudinal furrows, near inner eye margins and (few punctures) behind antennal tubercles,, diameter of punctures about as large as basal cross section of antennal segment 3; rest of frons shiny. Antennae moderately slender, nearly extending to the posterior margin of pronotum, when reflexed, penultimate segments 1.5 x as long as broad. Pronotum slightly longer than broad (28: 25), broadest in middle where a

distinct lateral callus is present, sides straightly convergent anteriorly, distinctly concave posteriorly. A deep transverse impression near anterior margin. Punctuation coarse and dense except in middle (where a shiny area can be seen, which is about two punctures broad and abbreviated anteriorly and posteriorly) and in two small areas beside the middle; diameter of punctures as large as median cross section of antennal segment 3, interstices mostly smaller than half diameter of punctures. Elytra subquadrate, much broader than head (36: 32.5), slightly longer than broad (37: 36), shoulders rectangular, sides nearly straight, constricted in posterior third, posterior margin broadly emarginate (IS: 32). Sutural and humeral impressions short, distinct, with a more or less distinct broad callus medio-laterally. Punctuation very coarse and moderately dense, diameter of punctures about as large as median cross section of antennal segment 2, shiny interstices often nearly as broad as half the diameter of punctures, sometimes broader. Abdomen cylindrical, basal constrictions of anterior segments deep, tergite 7 with a broad membranous fringe apically (the insect is fully winged). Punctuation on tergite 3 sparse, varying from coarse (anteriorly) to fine (posteriorly); punctuation on the following tergites very sparse, fine anteriorly, very fine posteriorly punctures on tergite 7 finer than inner eye facets, interstices four times as large as punctures. Legs slender, metatarsi 3/5 as long as metatibiae, segment 1 about as long as segments 2 and 3 combined, nearly as long as the last segment; segment 3 shallowly, segment 4 deeply bilobed. Whole body without microsculpture.

Male: Metasternum shallowly depressed, moderately coarsely and very densely punctate. Sternites 4-7 with gradually deeper median impressions, which are more finely and more sparsely punctate than the lateral portions of sternites except for that of sternite 7, which is very densely punctate and pubescent; posterior margin of sternites shallowly emarginate. Sternite 8 (Fig. 39). Sternite 9 (Fig. 41) with acute apico-lateral teeth and a distinct, thin apico-lateral brush of about 2/3 the length of the sternite. Aedeagus (Fig. 38), median lobe triangularly narrowed with some short setae in anterior half ventro-laterally; internal sac densely set with short spines; parameres much longer than median lobe, with about 40 long setae in apical third.

Female: Unknown.

Type Material: Holotype (♂) and 1 ♂-paratype: COSTA RICA: Guápiles, 9.- 13.II.1943, A. Bierig; 3 ♂♂-paratypes: Chitaría, 17.- 20.II.1943, A. Bierig. HT and PTT in FMCh, 1 PT in cP.

Discussion: This new species belongs to the group of *Stenus denticollis* Fauvel and closely resembles several species of that group. It is the sister species of *S. fulgureus* sp. nov. (see below), from which it is distinguished by less coarse punctuation of frons, broader elytra, more finely punctate abdomen and especially by the male sexual characters. It may be distinguished from *S. fulgens* L. Benick (Colombia) by the much more densely punctate pronotum and elytra, from *S. megops* Sharp (Panama, Costa Rica, Guatemala, Nicaragua, Ecuador) by coarser and much more densely punctate and broader elytra, from *S. fulgescens* sp. nov. by the finer punctuation of frons, coarse and dense elytral punctuation (especially in sutural half), and broader elytra, from *S. fulgidulus* sp. nov. (Ecuador) by denser elytra punctuation, more strongly elevated median portion of frons and finer punctuation of the anterior abdomen, from *S. nodicollis* Puthz (Peru) by the much less prominent lateral callus of the pronotum, more coarsely and more densely punctate elytra, from similar species of the *jugalis*-group by the medio-lateral callus of the pronotum and the different shape of tergite 10, from all these species by the male sexual characters.

Etymology: The name refers to a close relationship to *S. fulgens* L. Benick and its allies (Lat. *fulgurator* = lightener).

Stenus (Hypostenus) fulgureus sp. nov.

Description: Black, shiny, head coarsely, sparsely punctate, pronotum coarsely and mostly densely punctate, elytra very coarsely, moderately densely punctate, abdomen moderately coarsely and moderately densely (anteriorly) to extremely finely and sparsely (posteriorly) punctate; pubescence slightly distinct, recumbent. Base of antennae reddish yellow, club infuscate. Maxillary palpi reddish yellow. Legs reddish brown, apices of femora distinctly, those of the tibiae slightly infuscate. Clypeus black, labrum dark brown, moderately densely pubescent. Tergite 10 about as in Fig. 37.

Length: 3.2-3.8 mm (forebody: 2.0 mm).

PM of HT: wH: 31; aE: 17; wP: 24.5; IP: 28; wEl: 35; IEl: 35.5; IS: 31.

Male: Sternites 4-6 about as in *S. fulgurator*, sternite 7 slightly depressed along middle, posterior margin very shallowly emarginate. Sternite 8 (Fig. 40). Sternite 9 about as in Fig. 41. Aedeagus (Fig. 42) principally as in *S. fulgurator* but larger, median lobe less acute.

Female: Unknown.

Discussion: This is the sister species of *S. fulgurator*, from which it is distinguished by coarser punctation of the frons (diameter of punctures near inner eye margins larger than widest cross section of antennal segment 3), less broad elytra and anteriorly more densely punctate abdomen (most punctures on tergite 3 are about as large as widest cross section of antennal segment 3, interstices on the average as wide as punctures) and by the male sexual characters. It may be distinguished from *S. fulgens* L. Benick by the much denser punctation of pronotum and elytra, from *S. megops* Sharp by coarser punctation of frons, coarser and denser punctation of pronotum and elytra, from *S. nodicollis* Puthz by the much less prominent medio-lateral callus of the pronotum, from *S. fulgescens* sp. nov. by denser punctation in sutural third of elytra, from *S. fulgidulus* sp. nov. by smaller size, coarser punctation of frons and shorter elytra, from all these species by the male sexual characters.

Type Material: Holotype (♂): ECUADOR: Guayas: 49.5 km N Machala, 45 m, 13.I.1978, P. J. Spangler & J. Anderson: USNM.

Etymology: The name refers to a close relationship to *S. fulgens* L. Benick and its allies (Lat. *fulgureus* = lightning).

***Stenus (Hypostenus) fulgescens* sp. nov.**

Description: Same as in *S. fulgurator* (see above).

Length: 3.0-3.7 mm (forebody 1.8-1.9 mm).

PM of HT: wH: 29; aE: 15; wP: 23; IP: 24; wEl: 31.5; lEl: 33; IS: 29.

Male: Sternites 4-6 sparser but not finer punctate medially than laterally, sternite 7 with a long and moderately shallow median impression, which is finely and very densely punctate and pubescent, posterior margin very shallowly emarginate. Sternite 8 (Fig. 44). Sternite 9 apico-laterally with a moderately strong tooth and a strong brush about 2/3 the length of the sternite. Aedeagus (Fig. 43), median lobe triangularly narrowed, parameres much longer than median lobe, strongly dilated anteriorly, with about 2+18/19 long setae in apical sixth.

Female: Unknown.

Type Material: Holotype (♂): MEXICO: Chiapas: Palenque, 7.-9. V. 1969, Bright & Campbell; 2 ♂♂-paratypes: Chiapas: Ocosingo, 1.-2. VI. 1969, Bright & Campbell. HT and 1 PT in CNC, 1 PT in cP.

Discussion: This new species closely resembles *S. fulgurator* sp. nov., from which it is distinguished by the nearly indistinct medio-lateral callus of the pronotum, shorter pronotum and the male sexual characters. From most of the other similar species, which are listed above (see discussion at *S. fulgurator*) it may be distinguished by the indistinct medio-lateral callus of the pronotum and the male sexual characters.

Etymology: The name refers to a close resemblance to *S. fulgens* L. Benick and its allies (Lat. *fulgescens* = shining brightly).

***Stenus (Hypostenus) fulgidulus* sp. nov.**

Description: Black, shiny, head moderately coarsely and sparsely punctate, pronotum moderately coarsely and mostly densely punctate, elytra coarsely, moderately densely punctate, abdomen coarsely and moderately densely (anteriorly) to finely and sparsely (posteriorly) punctate; pubescence sparse, short, recumbent. Base of antennae brownish, club infusate. Maxillary palpi yellowish, segment 3 brownish. Base of femora reddish yellow, nearly apical half dark brown to blackish, tibiae and tarsi brownish, apices of tarsal segments darker. Clypeus black, labrum blackish brown, moderately sparsely pubescent. Tergite 10 very broadly rounded at smooth posterior margin.

Length: 4.0-4.3 mm (forebody 2.4 mm).

PM of HT: wH:36.5; aE: 18; wP: 27.5; IP: 32.5; wEl: 42; lEl: 45; IS: 39.

Male: Sternite 7 shallowly depressed, finely and densely punctate medially, posterior margin nearly straight. Sternite 8 (Fig. 49). Sternite 9 (Fig. 50), apico-lateral brush pronounced, 3/4 the length of the sternite. Aedeagus (Fig. 48), median lobe with a triangular apical portion, several short setae between basal and apical portion ventro-laterally, and with more strongly sclerotized ventro-lateral margins in basal portion; inner structures with membranes densely furnished with minute spines; parameres much longer than median lobe, slender, with about 20 long setae in apical quarter.

Female: Unknown.

Type Material: Holotype (♂): ECUADOR: Nanegalito, 7 km S on Nono Road, 1450 m, 0°0.23'N, 78°40.36'W, 30.X.1999, on partially submerged logs near stream, Z. H. Falin, ECU 1F99064. In NHMK.

Discussion: This new species is the sister species of *S. fulgens* L. Benick (Colombia), of which only the ♂-HT is known. It is larger than *S. fulgens*, the punctation of the pronotum coarser and denser (diameter of punctures about as large as widest cross section of antennal segment 3, interstices on average as large or smaller than diameter of punctures; in *S. fulgens* diameters of punctures are distinctly smaller than widest cross section of antennal segment 3 and interstices are averagely distinctly (to much) larger than diameter of punctures); although the impunctate areas of the pronotum are principally the same, they are much larger in *S. fulgens* than in the new species and the male sexual characters are different (apical notch of sternite 8 narrower (Fig. 52), apical tooth of sternite 9 more acute (Fig. 53), aedeagus more slender (Fig. 51), parameres with about 13-15 apical setae). For comparison: these are the PM of the HT of *S. fulgens*: wH: 32; aE: 16; wP: 24; IP: 27,5; wEl: 35,5; lEl: 37; IS: 32. Total length: 3.3-3.8 mm (forebody 2.0 mm).

Etymology: The name refers to a close relationship with *S. fulgens* (Lat. *fulgidulus* = very shiny).

Stenus (Hypostenus) simplicicollis sp. nov.

Description: Black, shiny, head moderately coarsely, sparsely punctate, pronotum and elytra coarsely and densely punctate, abdomen coarsely (anteriorly) to moderately finely (posteriorly), moderately densely punctate; pubescence distinct, recumbent. Base of antennae brown, club infusate; Maxillary palpi brownish, segment 3 infusate. Legs dark brown to blackish. Clypeus and labrum black, densely pubescent. Tergite 10 with broadly rounded and smooth posterior margin.

Length: 4.0-4.7 mm (forebody 2.2 mm).

PM of HT: wH: 32; aE: 18; wP: 39; IP: 31; wEl: 45; lEl: 44; IS: 37.

Male: Sternite 7 slightly depressed, finely and densely pubescent on posterior middle. Sternite 8 (Fig. 45). Sternite 9 (Fig. 47), apical brush moderately long and thin. Aedeagus (Fig. 43), triangular apical portion of median lobe with a short, more strongly sclerotized area dorso-laterally, inner structures consisting mainly of large expulsion membranes; parameres slender, slightly longer than median lobe, with about 35 setae in apical third.

Female: Sternite 8 rounded apically. Valvifer with a short apico-lateral tooth.

Type Material: Holotype (♂): COLOMBIA: Bogotá, VI. 1950, J. Nigro (ex coll. Jarrige). 1♀-paratype: Cundinamarca: 12 km S Tocancipa, 2.III.1969, P. J. Spangler. HT in MNHP, Museum National d'Histoire Naturelle, Paris, PT in USNM.

Discussion: This new species belongs also to the *denticollis*-group (as is shown by the male sexual characters), where it resembles several species with blackish legs. The most remarkable character is the complete absence of a medio-lateral callus of the pronotum, and this is the main character distinguishing this species from *S. denticollis* Fauvel (Colombia, Ecuador), *S. tuberosicollis* Puthz (Venezuela, Bolivia), *S. atrolucens* Puthz (Ecuador, Colombia), *S. atromicans* Puthz (Bolivia, Paraguay). From *S. nigrospendens* Puthz (Brazil, Paraguay, Argentina) and *S. atrocyaneus* Puthz (Colombia, Ecuador) it may be distinguished by smaller size, shorter pronotum and/or the absence of a metallic tint, from all these species by the male sexual characters.

Etymology: The name refers to the absence of a mediolateral callus at pronotum (Lat. *simplicicollis* = having a simple pronotum).

Stenus (Hypostenus) calceatus sp. nov. (Fig. 59)

Description: Dark blue-metallic, abdomen blackish with some coppery tint, moderately finely, densely punctate throughout; pubescence dense, semierect. Antennae dark brown. Segment 1 of maxillary palpi yellowish, segments 2 and 3 brownish. Legs blackish with metallic tint, tarsi dark brown. Clypeus blue metallic, anterior half of labrum dark brown, densely pubescent. Tarsi very densely set with long, dilated microstructured setae (Fig. 56-58), segment 4 narrow, deeply bilobed. Tergite 10 rounded at smooth posterior margin.

Length: 5.0-5.7 mm (forebody 2.8 mm).

PM of HT: wH: 41.6; aE: 28; wP: 34; IP: 39; wEl: 52; lEl: 53,5; IS: 44. Metatarsi: metatibiae = 28: 57.

Male: Metasternum broadly and shallowly impressed, moderately finely, sparsely punctate. Sternites 3-5 with a broad impunctate area medially, sternite 6 finely and sparsely punctate medially, sternite 7 finely and densely punctate and pubescent medially. Sternite 8 with a broad triangular notch in about posterior quarter (length of sternite: depth of notch = 27: 6). Sternite 9 (Fig. 55) with a dorsal "pocket" in posterior half, apico-lateral brush pronounced, about ¼ as long as the sternite. Aedeagus (Fig. 54), median lobe with a strongly narrowed apical portion, a strongly sclerotized inner tube and membranes densely furnished with minute spines and tufts; parameres slightly shorter than median lobe,

with about 20 setae in apical eighth.

Type Material: Holotype (♂): BRAZIL: Rio de Janeiro: km 54, 26 km E of Nova Friburgo, 25. IV. 1977, C. M. & O. S. Flint Jr.: in USNM.

Discussion: This new species belongs to the *denticollis*-group. Among all known *Stenus* species of the world it is singular because of the peculiar tarsal setae which resemble those of some *Dianous* species (see Figs. 1- 6, Puthz 2000b) but have an additional microstructure, which probably has an adhesive function and allows the insects to climb on smooth surfaces. Unfortunately nothing is known about the specific life of the new species, which might be comparable with that of *Dianous* species. Dr. Oliver Flint wrote me in January 2000: It was probably taken at a UV light beside the stream (I did collect this way that night). I have no note that I collected directly from the stream. I note the stream to be 3 to 5 m wide by 0.3 to 0.6 m deep “bubbling” over boulders, rubble, and gravel... partly wooded and old pasture.... It is on the road from Nova Friburgo to Cachoeiras de Macacu at 410 m and is near the foot of the mountains, on the east side.”

Etymology: This new species is named after the peculiar tarsal structure (Lat. *calceatus* = with shoes).

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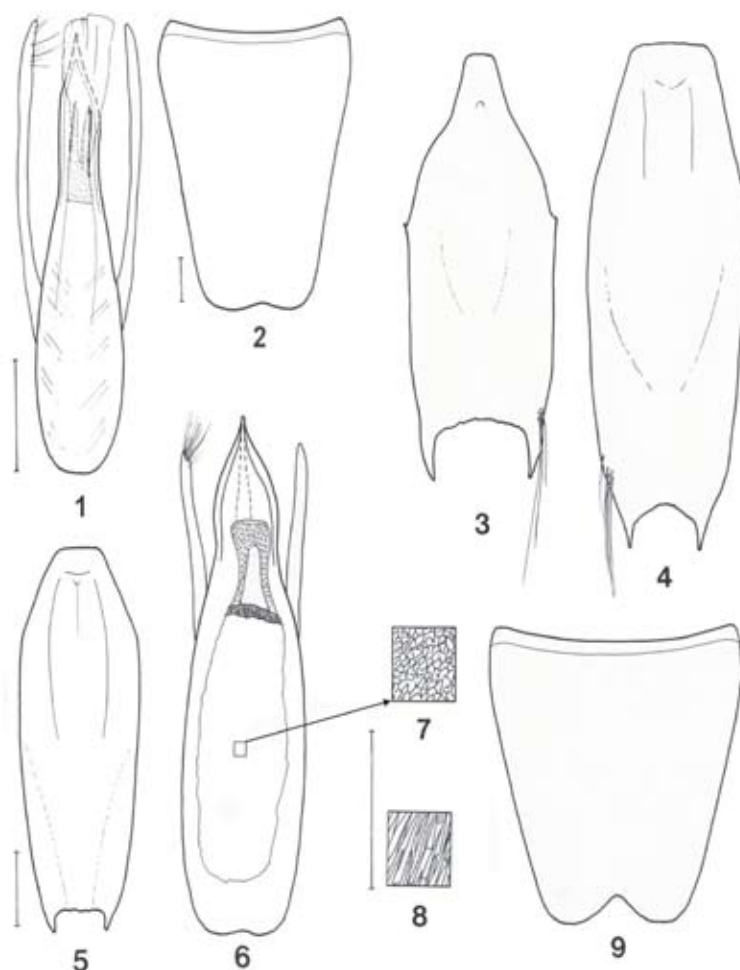
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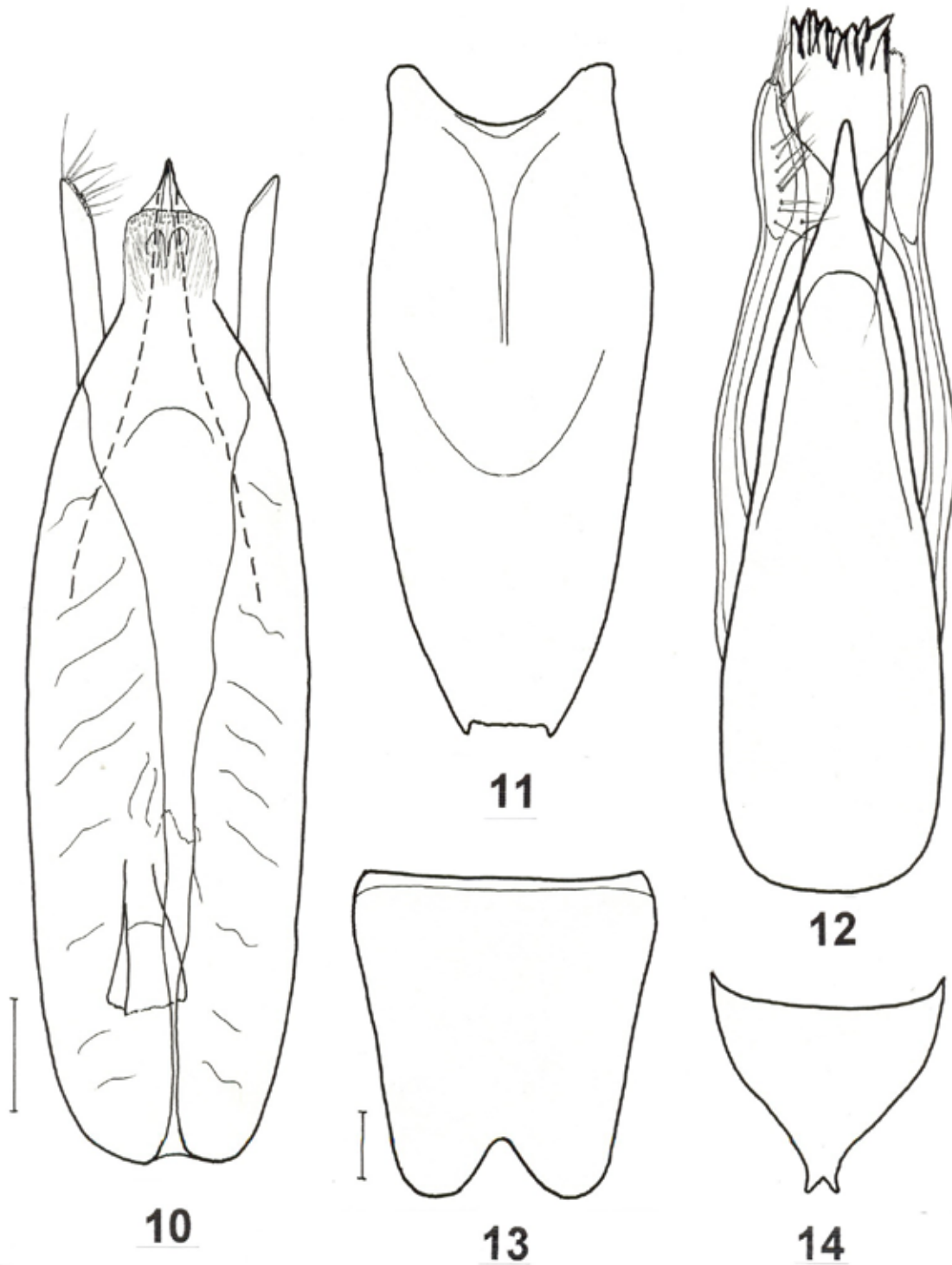
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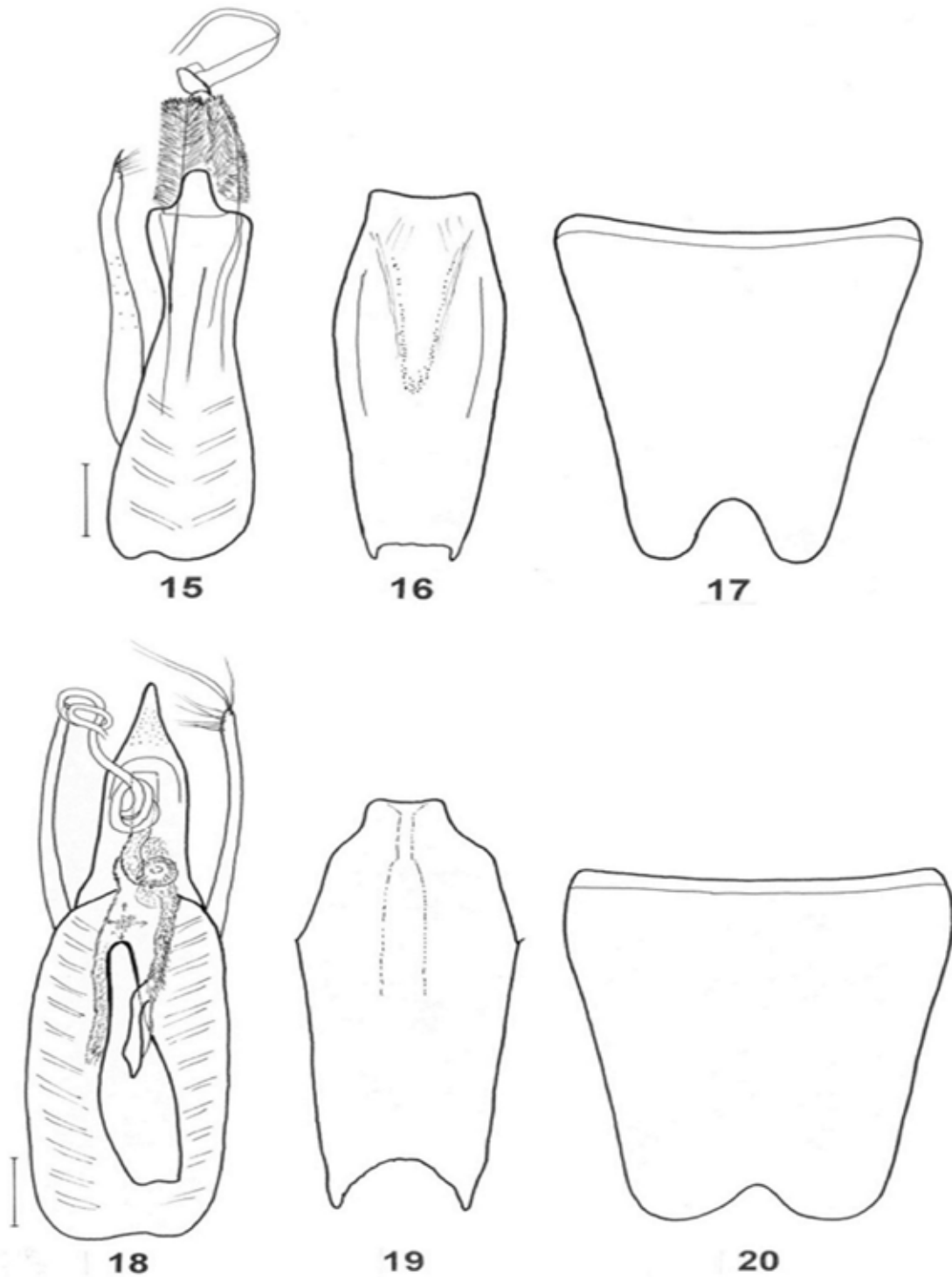
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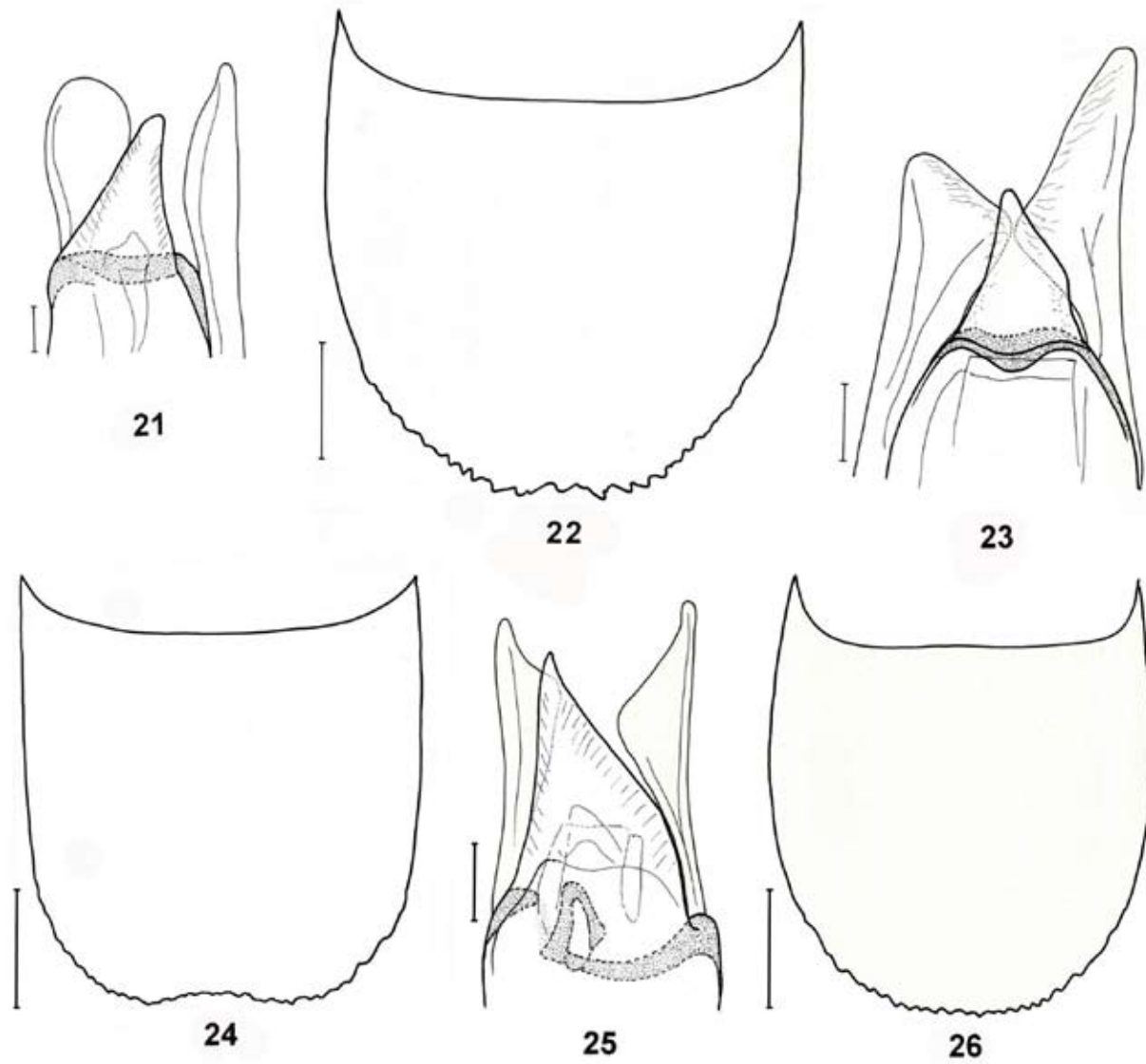
Figs 1-9: Ventral aspect of aedeagus (1, 6), sternite 8 of ♂ (2, 9), sternite 9 of male (3-5), structure of the basal part of the internal sac of the aedeagus (7, 8) of (1-3) *Stenus (Hypostenus) givensi* sp. nov. (HT), (4, 8) *S. (H.) ambulator* Sharp (Mexico: Los Tuxtlas) and (6, 7, 9) *S. (H.) ambulatrix* sp. nov. (HT).- Scale bar = 0.1 mm (1= 3; 5 = 4, 6, 9).



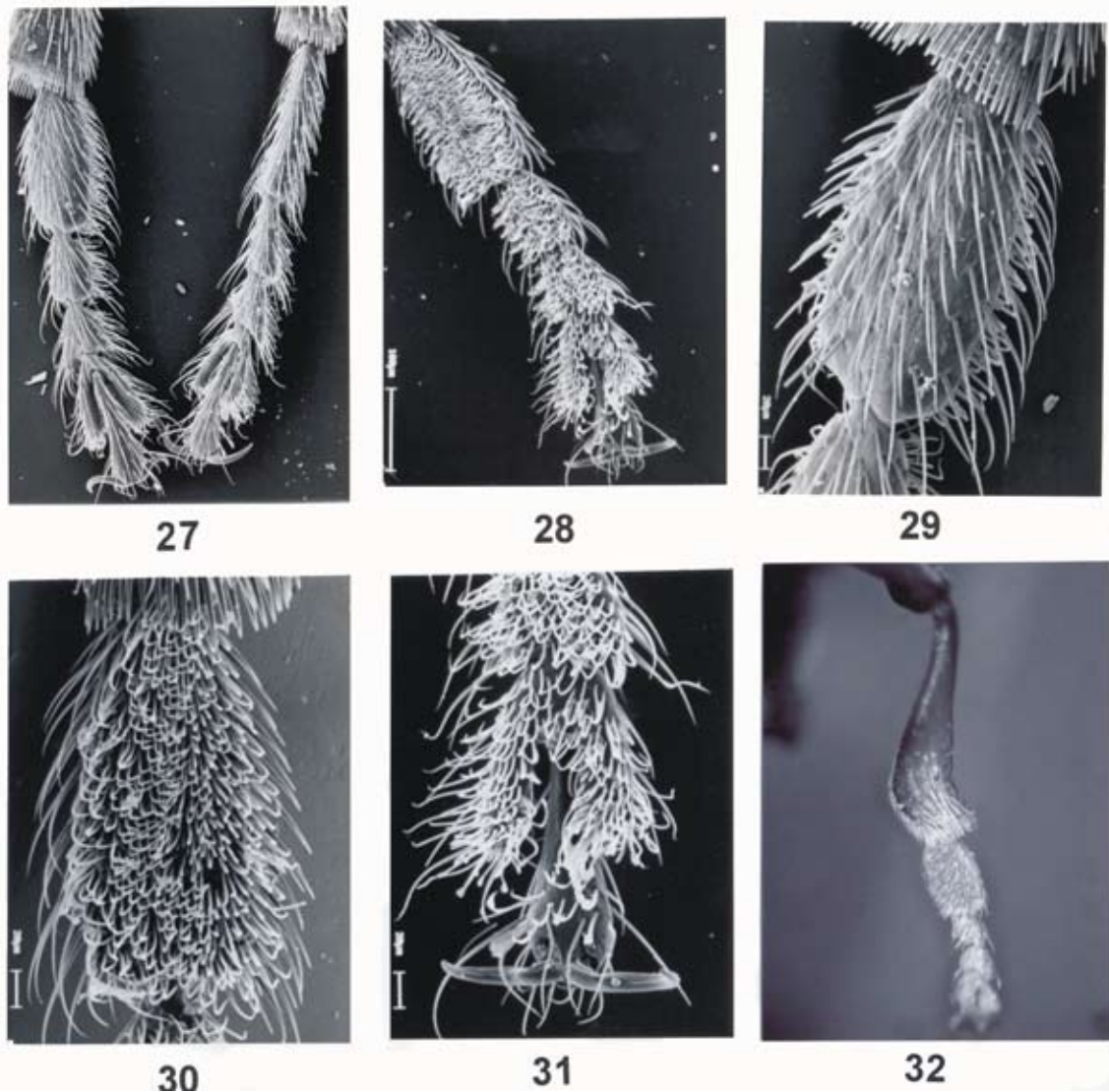
Figs 10-14: Ventral aspect of aedeagus (10, 12), sternite 9 of male (11), sternite 8 of male (13), tergite 10 (14) of (10, 11, 13, 14) *Stenus* (*Hypostenus*) *ambulabilis* **sp. nov.** (PT) and (12) *S. (H.) chimalpopoca* **sp. nov.** (HT; internal sac extruded).- Scale bar = 0.1 mm (10= 11, 12, 14).



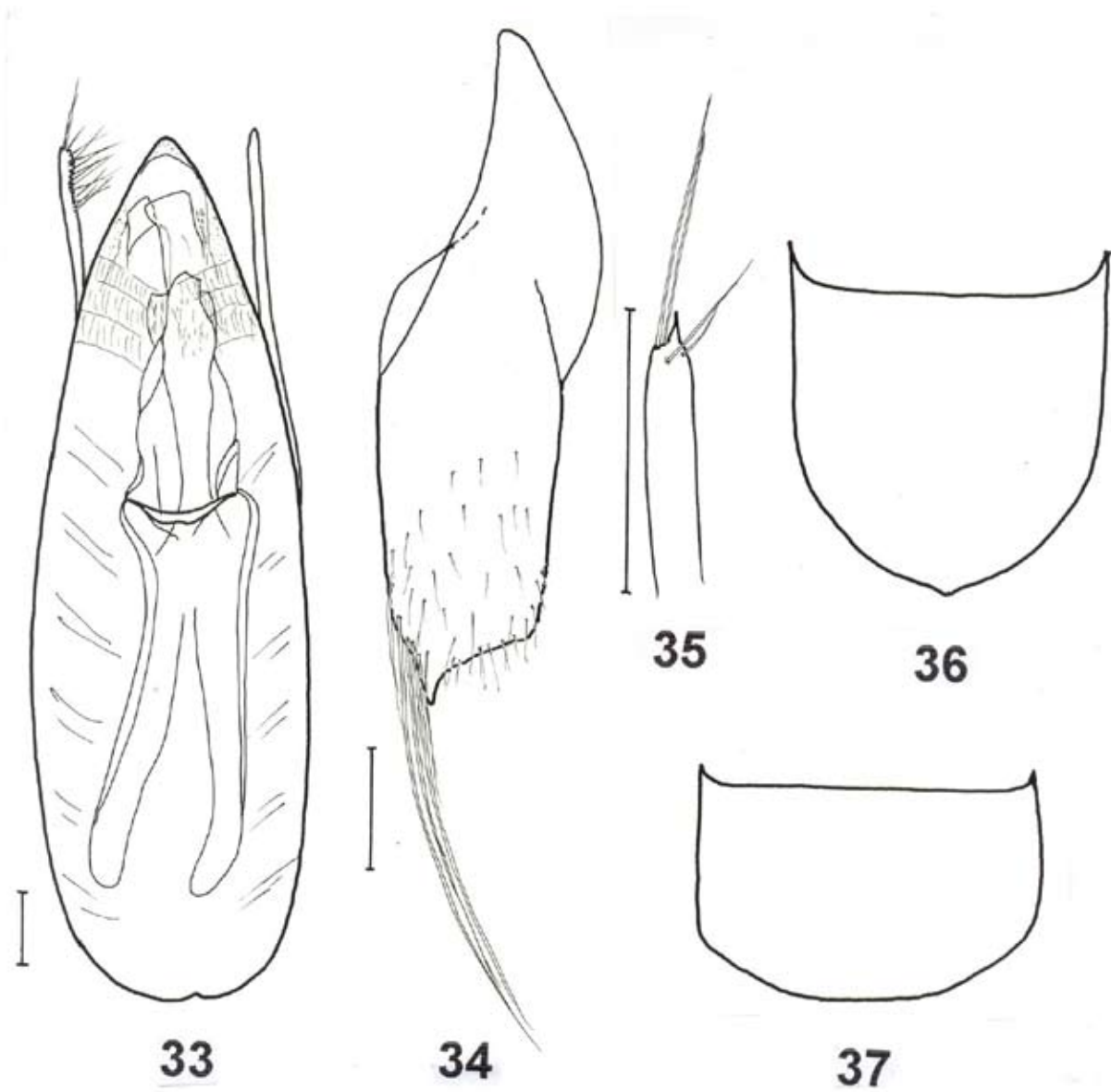
Figs 15-17: Ventral aspect of expulsed aedeagus without right paramere (15), sternite 9 (16) and sternite 8 (17) of male of *Stenus (Hypostenus) ahuitzotl* sp. nov. (HT).- Scale bar = 0.1 mm. Figs 18-20: Ventral aspect of aedeagus (18), sternite 9 (19) and sternite 8 (20) of male of *Stenus (Hypostenus) remorator* sp. nov. (PT).- Scale bar = 0.1 mm.



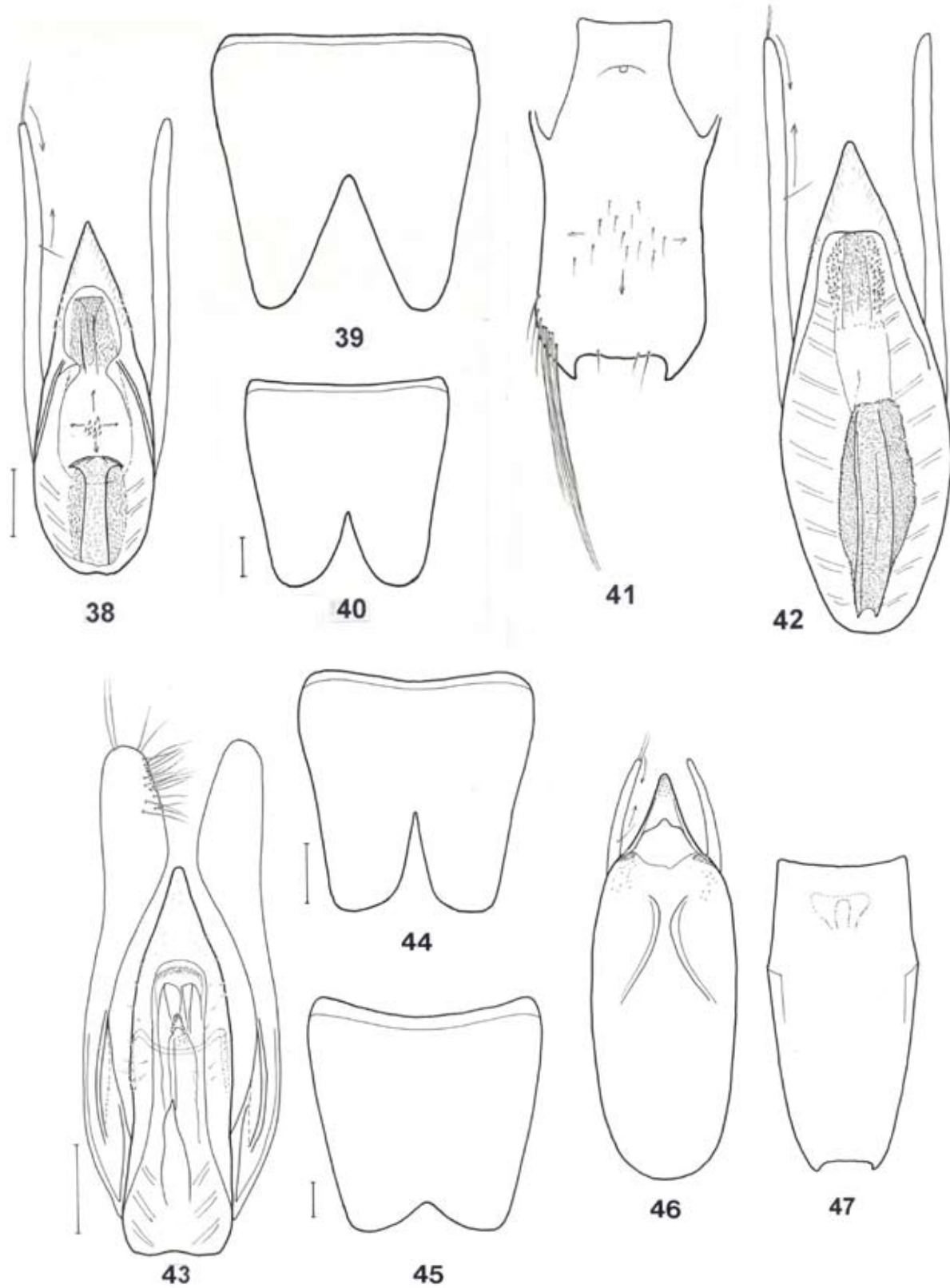
Figs 21-26: Apical portion of median lobe, ventral aspect (21, 23, 25) and tergite 10 (22, 24, 26) of (21, 22) *Stenus (Hypostenus) palmipes* **sp. nov.** (HT), (23, 24) *S. (H.) aceses* **sp. nov.** (HT) and (25, 26), *S. (H.) achates* **sp. nov.** (HT).- Scale bar = 0.1 mm (22 = 24, 26; 23=25).



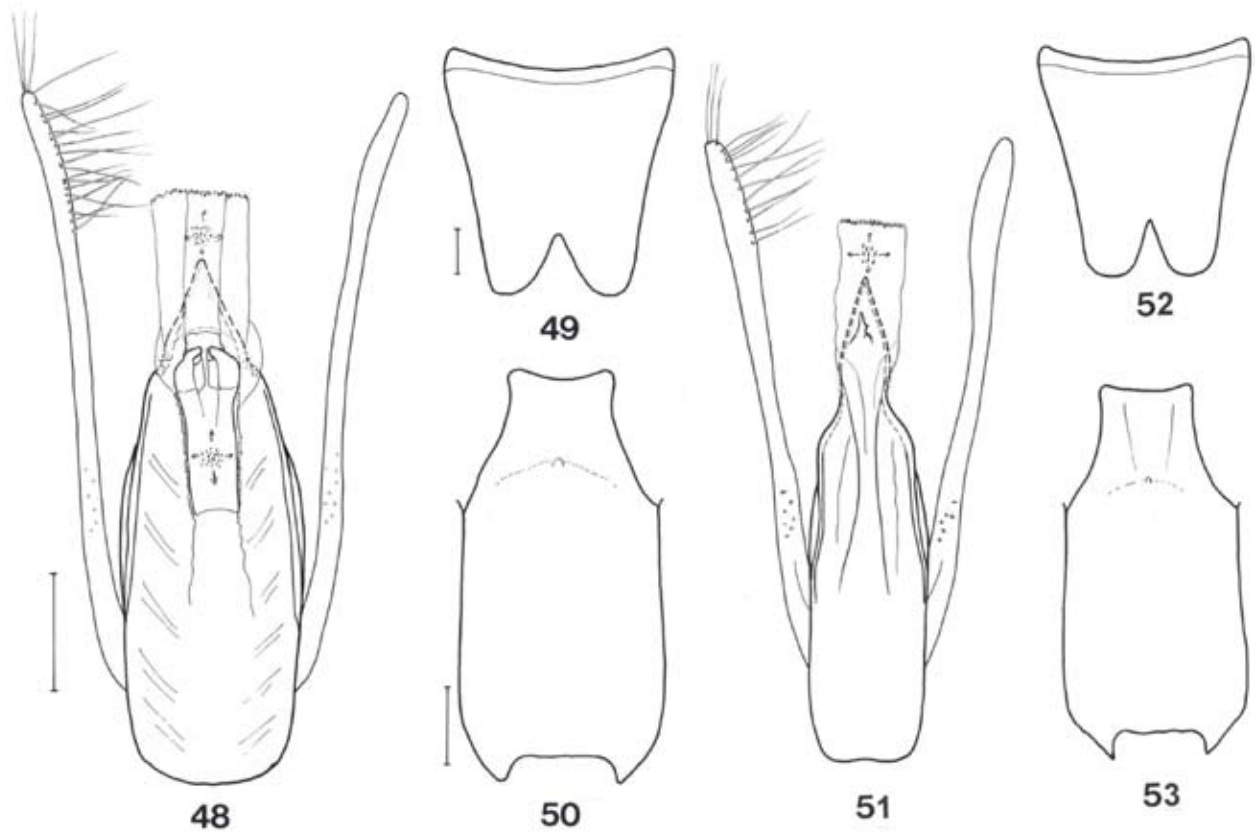
Figs 27-31: *Stenus (Hypostenus) latinus* Puthz (Ecuador: Limoconcha): (27) metatarsi of male (left) and of female (right), dorsal aspect, (28) metatarsi of male, ventral aspect, (29) segment 1 of metatarsi of male, dorsal aspect, (30) same, ventral aspect, (31) segments 3-5 of metatarsi of male, ventral aspect, (32) metatibia and metatarsus of *S. (H.) palmipes* sp. nov., ventral aspect.- Scale bar = 0.1 mm.



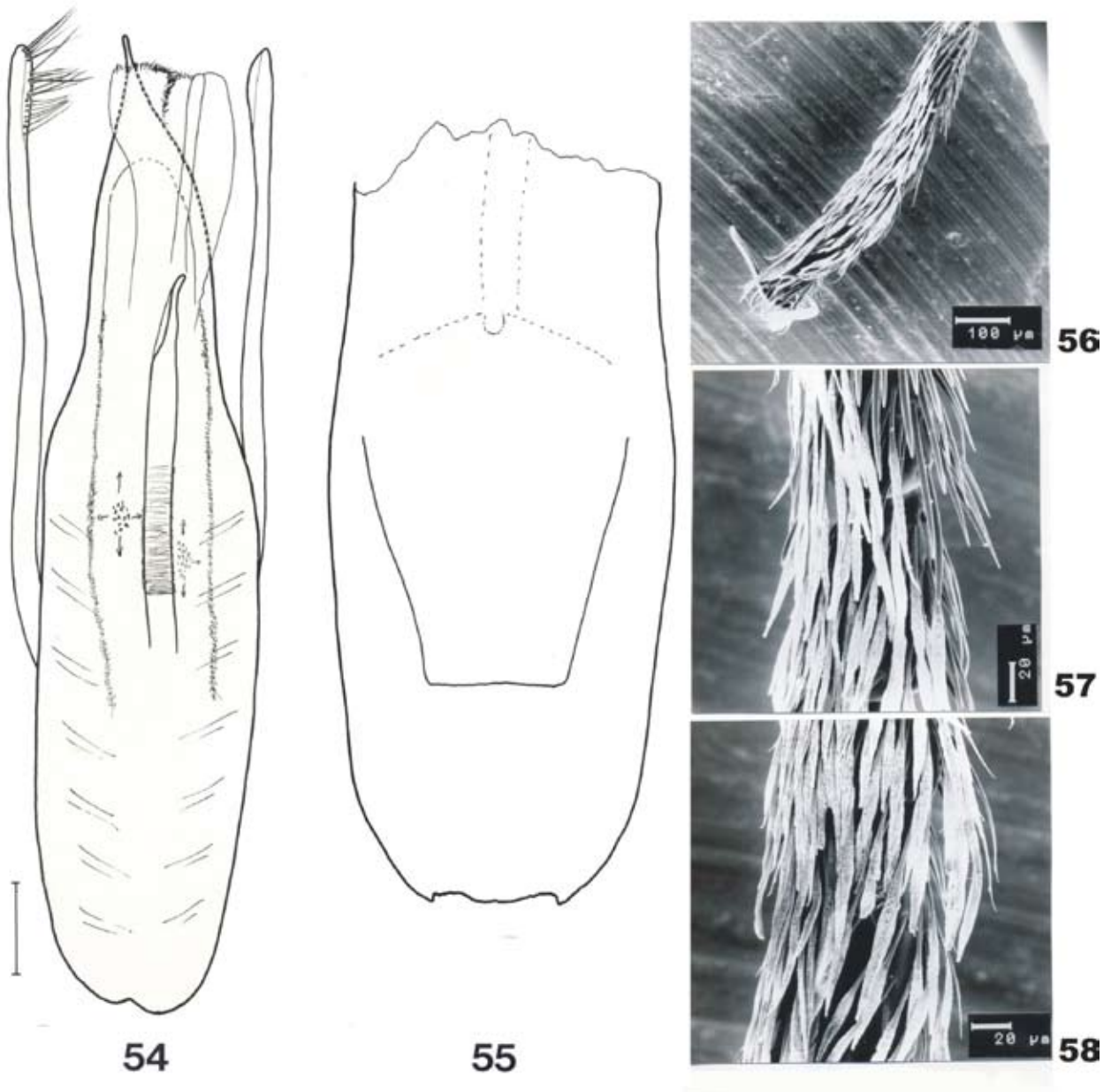
Figs 33-37: Ventral aspect of aedeagus (33), Valvifer (34), apex of paramere (35), tergite 10 (33-36) of *Stenus* (*Hypostenus*) *cuahtemoc* sp. nov. (HT, PT), (37) *S. (H.) fulgurator* sp. nov. (HT).- Scale bar = 0.1 mm (34= 6, 37).



Figs 38-42: Ventral aspect of aedeagus (38, 42), sternite 8 (39, 40) and sternite 9 (41) of male of (38, 39, 41) *Stenus (Hypostenus) fulgurator* **sp. nov.** (HT) and (40, 42) *S. (H.) fulgureus* **sp. nov.** (HT).- Scale bar = 0.1 mm (38= 39, 41, 42). Figs 43-47: Ventral aspect of aedeagus (43, 46), sternite 8 (44, 45) and sternite 9 (47) of male of (43, 44) *Stenus (Hypostenus) fulgescens* **sp. nov.** (HT) and (45-47) *S. (H.) simplicicollis* **sp. nov.** (HT).- Scale bar = 0.1 mm (45=46, 47).



Figs 48-53: Ventral aspect of expulsed aedeagus (48, 51), sternite 8 (49, 52) and sternite 9 (50, 53) of males of (48-50) *Stenus* (*Hypostenus*) *fulgidulus* sp. nov. (HT) and (51-53) *S. (H.) fulgens* L. Benick (HT).- Scale bar = 0.1 mm (48=51; 49=52; 50=53).



Figs 54-58: Ventral aspect of aedeagus (54), sternite 9 of male (55), ventral aspect of metatarsi (56-58) of *Stenus (Hypostenus) calceatus* **sp. nov.** (HT). Scale bar = 0.1 mm.



Fig. 59: *Stenus (Hypostenus) calceatus* sp. nov. (HT).