

**Six new neotropical species of the genus *Stenus*
Latreille, 1797**
(Coleoptera: Staphylinidae) ¹

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Abstract: Six new neotropical species of the genus *Stenus* Latreille, 1797 are described: *S. cerromuertanus* **n. sp.** (Costa Rica), *S. electrus* **n. sp.** (Costa Rica), *S. inconveniens* **n. sp.** (Bolivia), *irazumontis* **n. sp.** (Costa Rica), *S. holzerianus* **n. sp.** (Costa Rica) and *S. sagittarius* **n. sp.** (Costa Rica).

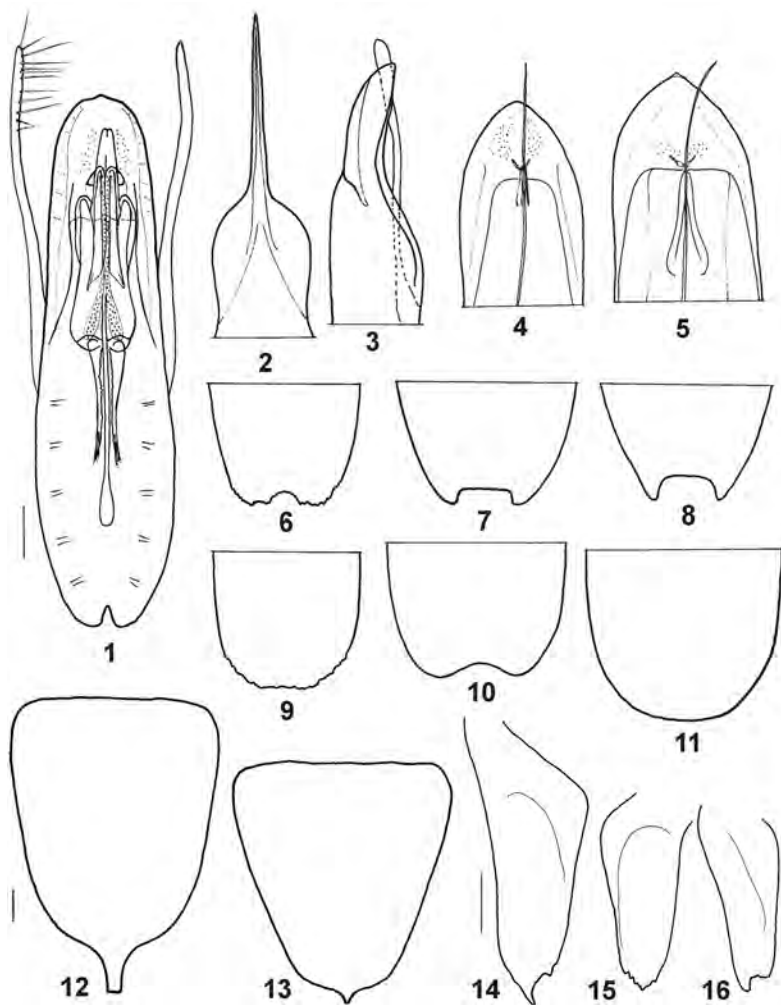
Zusammenfassung: Sechs neue neotropische Arten der Gattung *Stenus* Latreille 1797 werden beschrieben: *S. cerromuertanus* **n. sp.** (Costa Rica), *S. electrus* **n. sp.** (Costa Rica), *S. inconveniens* **n. sp.** (Bolivien), *irazumontis* **n. sp.** (Costa Rica), *S. holzerianus* **n. sp.** (Costa Rica) and *S. sagittarius* **n. sp.** (Costa Rica).

Key words: Coleoptera, Staphylinidae, Steninae, *Stenus*, new species, Costa Rica, Bolivia.

From material, which continually is sent to me for identification I describe here six new species from the Neotropics. These new species indicate that we are still far from a complete inventory of the Neotropic *Stenus* fauna.

Abbreviations: DE= average distance between eyes; EL= greatest length of elytra; EW= greatest width of elytra; ht= holotype; HW= head width; PL= pronotal length; PM = proportional measurements (1 unit = 0,025 mm); PW= pronotal width, Pronotumbreite; SL= sutural length of elytra.

¹ 332nd Contribution to the Knowledge of Steninae



Figs 1-16: Ventral (1, 2, 4, 5) and lateral (3) aspect of the median lobe or the apical portion of median lobe, posterior portion of sternite 9 of male (6-8) or tergite 10 (9-11), sternite 8 of female (12, 13), valvifer (14-16) of *Stenus inconveniens* n. sp. (1, HT), *S. sagittarius* n. sp. (2, 3, 6, 9, HT), *S. holzerianus* n. sp. (4, 7, 10, PT), *S. nevermanni* L. Benick (5, 8, 10; La Selva Biol. St.), *S. electrus* n. sp. (12, 14, HT), *S. cerromuertanus* n. sp. (13, 15, HT), *S. irazumontis* n. sp. (16, PT).- Scale bar = 0.1 mm (1= 3-11; 12= 13; 14= 15, 16).

Stenus electrus n. sp.

Material: Holotype (♀): COSTA RICA: Cartago, Cordillera de la Talamanca, Carret. Interamericana km 76, 2996 m, 9°37.503'N, 83°50.192'W, wet litter, roots and moss sifted, 13.I.2005, M. SCHÜLKE: in coll. PUTHZ (in the Staatliches Museum für Naturkunde, Stuttgart).

Description: Brachypterous, amber-coloured, strongly shiny, forebody moderately coarsely, shallowly, densely, somewhat irregularly punctate, abdomen moderately coarsely, moderately densely punctate; pubescence short, recumbent. Maxillary palpi and base of antennae yellow, antennal club slightly infusate, legs yellowish brown. Clypeus and labrum light brown, moderately densely pubescent. Abdomen with paratergites. Tarsi simple.

Length: 4.4mm (forebody: 2.2 mm).

PM of the ht: HW: 42; DE: 21; PW: 33; PL: 35; EW: 40; EL: 34; SL: 24.

Male: Unknown.

Female: Sternite 8 (fig. 12). Valvifer (fig. 14). Tergite 10 rounded at posterior margin. No sclerotized spermatheca.

Head slightly broader than elytra, frons broad, with deep longitudinal furrows, median portion as broad as each of the lateral portions, strongly elevated, not at all extending to the level of medial eye margins; punctuation coarse and sparse, diameter of punctures about as large as median cross section of antennal segment 3, interstices on median portion and near longitudinal furrows wider than diameter of punctures, much smaller near medial eye margins. Antennae short, when reflexed slightly extending beyond the middle of pronotum, penultimate segments about as long as broad. Pronotum slightly longer than broad, broadest in about middle, sides convex in anterior half, moderately concave in posterior half; a long impression along middle, some shallower impressions laterally; punctuation coarse and dense, slightly confluent at places, diameter of punctures may become as large as widest cross section of antennal segment 3, interstices often as large as punctures. Elytra trapezoid, much broader than long, shoulders oblique, sides distinctly dilated behind, posterior margin very deeply emarginate; sutural and humeral impressions long and deep, a shallow impression in posterolateral quarter; sculpture similar to that of pronotum, punctures mostly smaller, interstices often larger than punctures and repeatedly rugiform. Abdomen with horizontal paratergites, those of tergite 4 about

as broad as base of mesotibiae, with few coarse punctures in a line; basal furrows of first tergites moderately deep, no membranous fringe at posterior margin of tergite 7; punctation throughout moderately coarse, slightly coarser anteriorly than posteriorly, punctures on tergite 4 nearly as large as medial cross section of antennal segment 3, interstices mostly smaller than punctures; punctures on tergite 7 about as large as basal cross section of antennal segment 3, interstices larger than diameter of punctures. Legs robust, metatarsi three quarters as long as metatibiae, segment 1 about as long as the two following segments combined, distinctly longer than the last segment; segment 4 simple. Abdomen shallowly reticulate, forebody smooth.

Discussion: This new species belongs to the *metallicus*-complex (PUTHZ, 2006: 663), where it may be distinguished by its amber colour, its sculpture and the sexual characters.

Etymology: The name of this species refers to the colour of the insect.

***Stenus cerromuertanus* n. sp.**

Material: Holotype (♀): COSTA RICA: San José, Cerro de la Muerte, E side, 9°33.979'N, 83°45.268'W, 3350m, Paramo with bamboo, sifted, 14.I.2005, M. SCHÜLKE: in coll PUTHZ (in the Staatliches Museum für Naturkunde, Stuttgart).

Description: Brachypterous, head and abdomen blackish, pronotum and elytra dark brown, shiny with some metallic tint, forebody very coarsely and densely punctate, abdomen coarsely (anteriorly) to moderately finely (posteriorly) punctate; pubescence short, recumbent. Maxillary palpi and antennal base yellow, antennal club infusate. Legs yellowish brown. Clypeus black, labrum dark brown, moderately densely pubescent. Abdomen with moderately broad paratergites. Tarsi simple.

Length: 4.0mm (forebody: 2.0mm).

PM of HT: HW: 34.5; DE: 18; PW: 27; PL: 28; EW: 36; EL: 30; SL: 20.

Male: Unknown.

Female: Sternite 8 (fig. 13), valvifer (fig. 15). Tergite 10 rounded at posterior margin.

Head narrower than elytra, frons broad, longitudinal furrows distinct, median portion narrower than each of the lateral portions, distinctly elevated, extending to the level of medial eye margins; punctation coarse and very dense, diameter of punctures larger than widest cross section of antennal segment 3, interstices much smaller than half diameter of punctures except on median portion, where they may become as large as punctures; also near medial eye margins posteriorly interstices may become slightly larger. Antennae short, when reflexed slightly extending beyond the middle of pronotum, penultimate segments slightly longer than broad. Pronotum nearly as broad as long, broadest in about middle, sides in anterior half slightly convex, strongly constricted posteriorly; punctation very coarse and dense, diameter of punctures about as large as apical cross section of antennal segment 2, interstices mostly smaller (but not much) than half diameter of punctures; in posterior half some punctures may become coalescent. Elytra trapezoid, much broader than long, shoulders oblique, sides strongly widened behind, posterior margin deeply emarginate; humeral impressions long and shallow, directed mediad posteriorly; punctation yet coarser than on pronotum, less dense and somewhat shallower, largest punctures as large as medial cross section of antennal segment 2, interstices mostly smaller than half diameter of punctures. Abdomen broad, paratergites moderately broad, horizontal, those of tergite 4 about as broad as base of metatibiae, with a row of coarse punctures; basal furrows of first tergites shallow, tergite 7 with a rudimentary apical fringe; punctation of anterior tergites coarse and moderately dense, punctures on tergite 4 about as large as widest cross section of antennal segment 3, interstices may become as large as punctures; punctation of tergite 7 moderately fine, punctures about as large as basal cross section of antennal segment 3, interstices as large as or slightly larger than punctures. Legs robust, metatarsi about three quarters as long as metatibiae, segment 1 slightly shorter than the three following segments combined, slightly longer than segment 5; segment 4 simple. The whole body is shallowly reticulate.

Discussion: This new species belongs to the complex of *S. metallicus* Erichson (PUTHZ, 2006: 663) and resembles several spotted species around *S. fenestralis* Fauvel. From all its relatives it is distinguished by the unicolourous elytra, the coarse punctation and the slightly serrate valvifera.

Etymology: The name of this new species is derived from the type's locality.

Stenus irazumontis n. sp.

Material: Holotype (♂): COSTA RICA: Volcan Irazu, near crater border, 9°58'39.3''N, 83°51'08.2''W, 3347m, pioneer vegetation, sifted, 13.XII.2012, M. Schülke. 1♀-paratype: Volcan Irazu, road to top, 9°38'32.2''N, 83°50'59.1''W, 3384m, sifted, 13.XII.2012, M. Schülke.- Holotype in the Instituto Nacional de Biodiversidad, Costa Rica, paratype in coll. Puthz.

Description: Brachypterous, black with some metallic tint, shiny, forebody very coarsely, densely punctate, abdomen moderately finely and moderately densely punctate; pubescence short, recumbent. Maxillary palpi with the base yellow, last segment reddish yellow. Antennae brown. Legs chestnut brown, base of femora slightly lighter. Clypeus black, larbrum dark brown, densely pubescent. Abdomen with horizontal paratergites. Legs simple.

Length: 2.9-3.6mm (forebody: 1.5-1.6mm).

PM of the holotype: HW: 28; DE: 17; PW: 22.8; PL: 24; EW: 27.5; EL: 24; SL: 18.

Male: Unknown.

Female: Sternite 8 rounded at posterior margin. Valvifer (fig. 16). Tergite 10 rounded at posterior margin.

Head slightly broader than elytra, frons very broad, comparatively flat, medial eye margins divergent posteriorly, median portion of frons half as broad as each of the lateral portions, distinctly elevated, extending to the level of medial eye margins; punctation coarse and dense, diameter of punctures about as large as widest cross section of antennal segment 3, interstices smaller than half diameter of punctures except on median portion and on a small area near medial eye margins posteriorly. Antennae short, when reflexed slightly extending beyond the middle of pronotum, penultimate segments as long as broad. Pronotum a little longer than broad, sides convex in anterior two thirds, constricted in posterior third; impressions shallow, indistinct; punctation very coarse, dense, diameter of punctures may become nearly as large as medial cross section of antennal segment 2; interstices smaller than half diameter of punctures. Elytra trapezoid, distinctly broader than long, shoulders oblique, sides distinctly widened behind, posterior margin broadly emarginate; no distinct impressions; punctation about as on pronotum, Abdomen with moderately broad paratergites, those of tergite 4 about as broad as medial cross section of metatibiae, densely set with coarse

punctures; basal furrows of anterior tergites deep with trace of a median carina; posterior margin of tergite 7 with a rudimentary membranous fringe; punctation anteriorly moderately fine, punctures on tergite 4 about as large as basal cross section of antennal segment 3, those on tergite 7 as large as an eye facet near medial eye margin, interstices on anterior tergites about as wide as punctures laterally, much larger medially, on tergite 7 slightly smaller than punctures. Legs slender, metatarsi more than three quarters as long as metatibiae, segment 1 as long as the two following segments combined, slightly longer than segment 5; segment 4 simple. Reticulation of abdomen shallow, nearly indistinct on fore body.

Discussion: This new species belongs to the *schneiderianus*-complex (Puthz, 2006: 664), where it is distinguished from all other known species of this complex by the brachypterism and the comparatively sparsely punctation.

Etymology: The name of this new species is derived from the type's locality.

***Stenus inconveniens* n. sp.**

Material: Holotype (♂) and 2♂♂, 1♀-paratypes: BOLIVIA: Yuracaris (ex coll FAUVEL). – Holotype and paratypes in the Institut royal des Sciences naturelles de Belgique, Brussels, 1 paratype in coll. PUTHZ.

Description: Macropterous, black, moderately shiny, coarsely and very densely punctate, pubescence short, recumbent. Maxillary palpi, antennae and legs yellow. Clypeus black, extremely densely punctate and pubescent. Labrum reddish. Abdominal segments 4-6 unmarginated. Tarsi bilobed.

Length: 4.2-4.8mm (forebody: 2.2-2.5mm).

PM of the holotype: HW: 38; DE: 24; PW: 25.5; PL: 36; EW: 36; EL: 41.5; SL: 34.

Male: Legs simple. Anterior sternites simple. Sternite 6 slightly shallowed posteromedially and finer punctate than laterally, sternite 7 shallowed along middle, finely and densely punctate and pubescent, posterior margin shallowly emarginate. Sternite 8 with a triangular apical notch, which is as deep as a quarter of the sternite's length. Sternite 9 narrowed apically with a short tooth apicolaterally. Tergite 10 broadly rounded at smooth posterior margin. Aedeagus (fig. 1).

Female: Sternite 8 broadly rounded apically. Valvifer acute apicolaterally. Tergite 10 slightly concave at posterior margin.

Head broader than elytra, frons very broad (medial eye margins concave), coarsely and densely punctate, diameter of largest punctures about as large as apical cross section of antennal segment 2, interstices in actual middle larger than half diameter of punctures, becoming smaller laterally, where they are distinctly smaller than half diameter of punctures. Antennae slender, when reflexed at least extending to the posterior margin of pronotum, penultimate segments twice as long as broad. Pronotum much longer than broad, broadest in about middle, sides nearly straight in anterior half, very slightly concave posteriorly; punctuation about as coarse as on frons, very dense, punctures distinctly delimited, interstices much smaller than half diameter of punctures. Elytra longer than broad, shoulders prominent, sides slightly convex, posterior margin deeply emarginate; no distinct impressions; punctuation about as on pronotum, slightly less dense, but interstices also distinctly smaller than half diameter of punctures. Abdomen cylindrical, basal furrows of anterior segments very deep, tergite 7 with a distinct membranous fringe apically; punctuation coarse and dense, less coarse than that on elytra, diameter of punctures on tergite 4 about as large as medial cross section of antennal segment 3, interstices somewhat smaller than half diameter of punctures; punctures on tergite 7 about as large as basal cross section of antennal segment 4, interstices may become as large as diameter of punctures; tergite 10 finely and sparsely punctate. Legs long and slender, metatarsi slightly longer than half of the metatibiae, segment 1 slightly longer than the two following segments combined, longer than the last segment; segment 4 deeply bilobed. Most of the body without microsculpture, tergite 7 with \pm distinct microsculpture, tergite 8-10 distinctly reticulate.

Discussion: This new species resembles several species close to *S. laticeps* Sharp; from this and from *S. fronto* Puthz and *S. mathani* Puthz it is distinguished by longer, in cross section less convex elytra and the sexual characters.

Etymology: Since this species is related but not agreeing with the above quoted species I name it „*inconveniens*“ (lat.= not agreeing).

***Stenus sagittarius* n. sp.**

Material: Holotype (♂): COSTA RICA: Puntarenas, Playa Zancudo, Tiskita Jungle Lodge, 0-120m, 8°21'N, 83°08'W, 11.VII.2008, E.

HOLZER: in coll. PUTHZ (in the Staatliches Museum für Naturkunde, Stuttgart).

Description: Macropterous, black with faint bluish hue, coarsely and very densely punctate; pubescence short, distinct at anterior margin of elytra. Maxillary palpi, antennae and legs yellowish, tarsal segments slightly infuscate apically. Clypeus black, very densely pubescent, labrum yellowish anteriorly. Abdominal segments 4-6 unmarginated. Tarsi bilobed.

Length: 5.5mm (extended) (forebody: 2,4mm).

PM of the holotype: HW: 37; DE: 22; PW: 27.5; PL: 34; EW: 38; EL: 43; S: 35.

Male: Anterior segments simple. Sternite 6 finely and densely punctate and pubescent posteromedially, sternite 7 with a horse-shoe shaped impression in posterior three fifths, very finely and densely punctate and pubescent, posterior margin with a shallow, broad emargination. sternite 8 with an acutely triangular notch apically, which is about as long as one quarter of the sternite. Sternite 9 serrate apicolaterally (fig. 6). Tergite 10 serrate at rounded posterior margin (fig. 9). Aedoeagus (figs 2, 3), apical portion of median lobe in dorsal aspect resembling a very long and sharp arrow tip, axe-shaped in lateral view.

Female: Unknown.

Head nearly as broad as elytra, frons broad, broadly concave, very slightly, nearly imperceptibly elevated in narrow actual middle; punctuation coarse and very dense, diameter of punctures nearly as large as apical cross section of antennal segment 2, interstices distinctly smaller than half diameter of punctures. Antennae slender, when reflexed extending to the posterior margin of pronotum, penultimate segments nearly twice as long as broad. Pronotum much longer than broad, sides nearly straightly convergent anteriorly, slightly concave posteriorly; punctuation as on frons, very dense. Elytra longer than broad, shoulders prominent, sides slightly convex, posterior margin deeply emarginate, sutural and humeral impressions very shallow; punctuation about as on pronotum, also dense, but interstices less sharp than on pronotum. Abdomen cylindrical, basal constrictions of anterior segments deep, tergite 7 with a distinct membranous fringe apically; punctuation anteriorly nearly as coarse as on frons, dense, less coarse and less dense posteriorly; punctures on tergite 7 as large as eye facets near medial eye margins, interstices about as large as punctures, tergite 10 finely and sparsely punctate. Legs slender, metatarsi slightly shorter than half of the

metatibiae, segment 1 nearly as long as the three following segments combined, segments 2 and 3 broadened, segment 4 deeply bilobed. Most of the insect without microsculpture, tergite 7 with faint, tergite 8-10 with distinct reticulation.

Discussion: This new species belongs to the *cupreus*-group. Within this group it resembles many species, from which it may be distinguished by the serrate tergite 10 and the aedeagus.

Etymology: The name is derived from the shape of the anterior median lobe, „*sagittarius*“ (lat.= archer).

***Stenus holzerianus* n. sp.**

Material: Holotype (♂) and 3♂♂, 8♀♀: COSTA RICA: Puntarenas: La Gamba, Piedras Blancas National Park, Esquinas rainforest, 8°42'N, 83°12'W, 90-200m, 29.VI.-5.VII.2008, E. HOLZER; 3♂♂, 1♀-paratypes: ibidem 18.-22.V.2012, on the undersurface of *Heliconia* leaves), idem.-Holotype in the Instituto Nacional de Biodiversidad, Costa Rica, paratypes in coll. HOLZER and in coll. PUTHZ.

Description: Macropterous, black, shiny, moderately coarsely and densely punctate, pubescence inconspicuous. Maxillary palpi and antennae yellowish, legs yellowish brown, apices of tarsal segments infuscate. Clypeus dark brown, labrum dark brown, anterior margin reddish, moderately densely pubescent. Abdominal segments 4-6 immargined. Tarsi bilobed.

Length: 5.2-6.5mm (forebody: 2.8-2.0mm).

PM of the holotype: HW: 42.5; DE: 26; PW: 26.5; PL: 37; EW: 41; EL: 49; SL: 41.

Male: Metasternum convex, moderately coarsely and moderately densely punctate, interstices on average as wide as half diameter of punctures. Anterior segments simple. Sternite 7 finely and densely punctate and pubescent along middle. Sternite 8 with a triangular apical notch, which is as deep as about one fifth of the length of sternite. Sternite 9 with a blunt tooth apicolaterally (fig. 7). Tergite 10 (fig. 9). Aedeagus, apical portion of median lobe (fig. 4).

Female: Sternite 8 broadly rounded apically. Valvifer with a blunt tooth apicolaterally. Tergite 10 slightly deeper emarginate apically than that of the male.

Head slightly broader (♂) or as broad as (♀) elytra, frons broad, concave except actual middle, moderately coarsely and very densely punctate, diameter of punctures about as large as medial cross section of antennal segment 3, interstices much smaller than half diameter of punctures, larger in actual middle, where they may become as large as diameter of punctures. Antennae long and slender, when reflexed about the last two segments extending beyond the posterior margin of pronotum, penultimate segments twice as long as broad. Pronotum much longer than broad, broadest in posterior third, sides from there straightly convergent in anterior two thirds, slightly concave posteriorly; punctation nearly as coarse as on frons, interstices smaller than half diameter of punctures. Elytra longer than broad, shoulders prominent, sides slightly convex, posterior margin deeply emarginate; sutural impression short and shallow, humeral impression missing; Punctation as coarse as on pronotum but less dense, interstices slightly smaller than half diameter of punctures. Abdomen cylindrical, basal constrictions of anterior segments very deep, tergite 7 with a broad membranous fringe apically; punctation anteriorly nearly as coarse as on elytra, becoming less coarse posteriorly; on tergite 7 punctures are about as large as one eye facet near medial eye margin, interstices up to twice as large as punctures, tergite 10 finely and sparsely punctate. Legs long and slender, metatarsi slightly longer than half of the metatibiae, segment one nearly as long as the three following segments combined, segments 2-4 broadened, segment 3 and 4 bilobed. Most of the insect without microsculpture, tergite 7 and 8 distinctly reticulate, tergite 10 without microsculpture.

Discussion: This new species belongs to the *aculeatus*-group (PUTHZ, 1977: 147) and is the sister species of *S. nevermanni* L. Benick, from which it may be distinguished by the sexual characters (compare figs 6, 8, 11) and the lack of microsculpture on tergite 10.

Etymology: This species is named in honour of Erwin HOLZER, Graz, who collected the type series.

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