

NEW SPECIES OF THE *STENUS HOSTILIS* GROUP, MAINLY FROM MEXICO (COLEOPTERA: STAPHYLINIDAE) (265th CONTRIBUTION TO THE KNOWLEDGE OF STENINAE)

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ABSTRACT

Definition of the group of *Stenus hostilis* including lectotype designation of *S. hostilis* and the description of 8 new species: *Stenus (s. str.) baranowskii* sp. nov. (Mexico), *S. (s. str.) hospitalis* sp. nov. (Mexico), *S. (s. str.) hospitator* sp. nov. (Mexico), *S. (s. str.) hostifer* sp. nov. (Mexico, Guatemala), *S. (s. str.) hostiferoides* sp. nov. (Mexico), *S. (s. str.) hospitus* sp. nov. (Mexico), *S. (s. str.) hostificus* sp. nov. (Mexico, Guatemala, Honduras, Costa Rica), *S. (s. str.) perhostilis* sp. nov. (Costa Rica, Guatemala, Panama).

The subgenus *Stenus s. str.* is represented in Central and South America with 58 species which belong to (at least) 8 different groups. One of these is the group of *Stenus hostilis* Sharp. With 9 species (+ 8 new species described in this paper) this group is restricted to Central America and Arizona. Some of the species, very close in general facies and often found at the same place together, have been confounded from the beginning: amongst the syntypes of *S. hostilis* Sharp there were found at least 4 different species. A revision of the complete material of that group shows that there are numerous undescribed species which sometimes only can be distinguished by studying the male sexual characters. In this paper I give a definition of the group and the description of 8 new species mainly from Mexico.

Characters of the *hostilis*-group: Medium-sized species (3.0-5.0 mm), base of abdominal tergites tricuspid, meso- and/or metatibiae of the males with a distinct apical/preapical tooth; punctuation of abdominal tergite 7 much finer than that on the frons near the eyes, interstices often reticulate; pronotum evenly vaulted with a more or less distinct longitudinal furrow, sculpture more regular, coarse, sometimes rugose but not crowded into longitudinal ridges; 9th sternum acute apicolaterally. Females lack a sclerotized spermatheca.

Taxa already described of the *hostilis*-group: *Stenus hostilis* Sharp, *S. jelineki* Puthz, *S. subhostilis* Puthz, *S. mexicanus* Sharp, *S. cartwrighti* Puthz, *S. hermani* Puthz, *S. nimborum* Sharp, *S. renifer (s. str.)* LeConte, *S. renifer sallaei* Sharp, and *S. zunicoides* Puthz.

Abbreviations: adE = average distance between eyes (see Fig. 1); HT = Holotypus; IEI = greatest length of elytra; IP = length of pronotum; IS = length of suture; mdE = maximum distance between eyes (see Fig. 2); PM = proportional measurements; PT = Paratypus; wEI = greatest width of elytra; wH = width of head (including eyes); wP = maximum width of pronotum.

Acronyms for museums and private collections:

AMNH	American Museum of Natural History, New York
CNC	Canadian National Collection, Ottawa
DEI	Deutsches Entomologisches Institut, Eberswalde
FMNH	Field Museum of Natural History, Chicago
HUB	Museum der Alexander Humboldt Universität, Berlin
IRScNB	Institut Royal des Sciences Naturelles de Belgique, Brussels

MHNG	Muséum d'histoire naturelle, Geneva
MNS	Staatliches Museum für Naturkunde, Stuttgart
NHMK	Natural History Museum University of Kansas, Lawrence, KS
NHML	The Natural History Museum, London
NHMW	Naturhistorisches Museum Wien
USNM	U. S. National Museum of Natural History (Smithsonian Institution), Washington, D. C.
ZML	Zoological Museum Lund
cP	coll. Puthz

Stenus (s.str.) hostilis Sharp

Figs. 2, 3, 11, 20

Stenus hostilis Sharp, 1886: 643, Biol. Centr.-Am. Col. I, 2; L. Benick, 1939: 17, Mitt. münch. ent. Ges. 29.

Male: Femora enlarged, more robust than in the female, mesotibiae with a strong apical tooth, metatibiae simple. Metasternum broadly impressed with a sharp median furrow, punctuation very coarse, dense, interstices shining with very faint groundsculpture. Posterior middle of sternite 3 slightly less densely punctate than the sides; sternites 4 & 5 broadly and shallowly impressed, finely and moderately densely punctate and pubescent, posterior margin slightly emarginate, punctuation of impression fine and moderately dense; sternite 7 deeply impressed in posterior half, sides of impression elevated, posterior margin moderately deeply emarginate, punctuation of impression fine and very dense. Sternite 8 (Fig. 3) with a small, very densely pubescent and slightly elevated area on anterior middle, rest of sternite moderately densely pubescent. Aedeagus with a broadly rounded median lobe apex (Fig. 11); parameres (Fig. 20) slightly shorter than the median lobe, with two groups of setae: one proximate group of about 12-14 strong setae and one distal group of about 12-16 less strong setae.

This species was described from (at least) six different localities in Mexico, Guatemala and Panama. In the NHML there are 18 syntypes, 2 syntypes in the FMNH, which belong to (at least) 4 different species. In order to clarify the identity of *S. hostilis*, I hereby designate as **lectotype** a specimen, which has the following labels: (1) on the plate, handwritten by D. Sharp, "*Stenus hostilis*. Mexico. Flohr"; (2) Mexico. Flohr.; (3) B. C. A. Col. I. 2. *Stenus hostilis*, Sharp.; (4) Sharp Coll. 1905.- 3/3.; (5) ♂- LECTOTYPE/PUTHZ 1999; (6) *Stenus hostilis* SHARP vid. V. Puthz 1999. I choose this specimen since it is a male, since it fits best the original description and since the author clearly signaled by his handwriting that he meant this specimen to represent the new species best. The specimen has been dissected for aedeagus.

Paralectotypes: 2 ♂♂ on a plate with Sharp's handwriting "Mexico, Flohr, *Stenus hostilis* var.", the left male belongs to *S. hostilis*, the right male on the same plate belongs to *S. subhostilis* Puthz; 1 ♂, 1 ♀, Cordova., Sallé, Hoege; 5 ♂♂, 2 ♀♀: Guatemala City, Champion; 1 ♂: Guatemala: Chiacaman, Vera Paz, Champion; 1 ♂: Panama: Volcan de Chiriqui, 4000-6000 feet, Champion.

NEW SPECIES OF THE *STENUS HOSTILIS* GROUP

Paralectotypes which belong to other species: 1 ♂, 1 ♀, Volcan de Chiriqui = sp. n. prope *S. subhostilis* Puthz; 1 ♀, Guatemala, Cerro Zunil, Champion = *S. cf. hostificus* Puthz; 1 ♀, Chiacaman, Vera Paz, Champion = cf. *S. perhostilis* Puthz; 1 ♂: "Mexico, Truqui" = *S. hospitus* sp. n. (holotype); 1 ♂: "Mexico, Flohr" = *S. hospitus* sp. n. (paratype).

OTHER MATERIAL. MEXICO: 2 ♂♂, 3 ♀♀: "Mexico", "Mexique" (DEI, IRScNB). Chiapas: 2 ♂♂, 2 ♀♀: 10 mi S Malpaso, 24.V.1969, J. M. Campbell (CNC, cP); 1 ♂: 8 mi S Simojovel, 10.VI.1969, J. M. Campbell (CNC); 1 ♂, 3 ♀♀: El Rincon, 13.-14.V.1969, J. M. Campbell [collected with *S. hostiferoides*] (CNC, cP); 1 ♂, 1 ♀, 41.8 km SE Comitán Ruinas Chinkoltic, 1490 m, # 63, extracting margin of stream, 5.VI.1991, Ashe [collected with *S. hostiferoides*] (NHMK); 2 ♂♂: Parque Laguna Belgica, 19.3 km N Ocozocoautla, 970 m, # 49, treading pond margin, 2.VI.1991, Ashe (NHMK); 1 ♀, Pozas de Beriozabal ca. 5 km W Tuxtla, 750 m, # 52, leaf litter near stream, 3.VI.1991, Ashe (NHMK). Veracruz: 2 ♂♂: Jalapa, Flohr (FMNH, HUB); 1 ♂, 1 ♀, Orizaba, Flohr (FMNH, NHML); 2 ♂♂, 3 ♀♀: Cordoba, Fenyés (FMNH); 4 ♂♂, 2 ♀♀: 18.8 km S Huatusco, Hwy 125 & 13.3 km E on Ixhuatlán Rd., 1130 m, # 206, 17.VII.1990, sifting trash/fungus log, J. S. Ashe, K. J. Ahn & R. Leschen (NHMK, cP); 1 ♂: 19 km S Huatusco, Hwy 125 & 13 km E on Ixhuatlán road, 1130 m, 17.VII.1990, ex soil, Ashe *et al.* (NHMK); 1 ♂: 7 km E Huarusco (sic) hwy 125, 1230 m, # 196, 16.VII.1990, leaf litter, Ashe *et al.* (cP); 2 ♂♂: Dos Amates, 3.-4.V.1969, Campbell & Bright (CNC). GUATEMALA: 1 ♂: "Guatemala" (cP); 1 ♂, 1 ♀, 5 km E Antigua, 1780 m, taken close to small stream in ravine with clay-mixed sand, tropical montane forest, 5.XII.1991, R. Baranowski (ZML, cP); 1 ♂, 1 ♀, ibidem 1780 m, sifting litter, 7.XI.1991, R. Baranowski (ZML); 1 ♂, 1 ♀, Solola 4 km N Panajachel, 1900 m, sifting litter near small stream, tropical montane forest, 14.XI.1991, R. Baranowski (ZML, cP); 1 ♀, Guatemala City near University del Valle de Guatemala, 1550 m, mixed oak forest, 1.XI.1991, R. Baranowski (ZML); 1 ♂: Baja Verapaz, 2 km NNW La Cumbre, 1570 m, sifting litter, mixed pine forest, 20.XI.1991, R. Baranowski (cP). HONDURAS: 1 ♂: El Paraiso, 5.9 km W Yuscarán, Cerro Montserrat, 1750 m, 13°55' N 86°24' W, # 020, treefall litter, 7.VI.1994, Ashe & Brooks (NHMK). EL SALVADOR: 1 ♀, Santa Ana, Montecristo, 21.7 km NE Metapan, 2100 m, # 228c, hardwood litter; 29.VIII.1994, R. Anderson (NHMK); COSTA RICA: 2 ♂♂, 6 ♀♀: La Caja, 8 km W San José, H. Schmidt (DEI, FMNH); 2 ♂♂: ibidem, XII.1929, Nevermann (FMNH); 3 ♂♂, 3 ♀♀: ibidem, Reimoser (NHMW); 4 ♂♂, 7 ♀♀: Vara Blanca, 2000 m, zwischen Barba & Poas, H. Schmidt (DEI, FMNH, cP); 1 ♀, Vara Blanca, VIII.1989, Bierig (FMNH); 1 ♂: San José, Bierig (USNM); 1 ♂: San José, 1000-1200 m, 19.IX.1932, Nevermann (FMNH); 2 ♂♂, 1 ♀, San José, Zurqui de Moravia, 1600 m, IV.1992, III-IV.1993, malaise trap, 1.-30.IV.1996, # 08, flight intercept trap, P. Hanson (NHMK); 11 ♂♂, 5 ♀♀: Rabo de Mico, 1800 m, 6.-8.III.1943, Bierig (FMNH, cP); 1 ♀, Sn. P. de M. de Oca, 9.III.1940, Bierig (FMNH); 1 ♂: Carpintera, 20.V.1939, Bierig (FMNH); 1 ♂, 3 ♀♀: Capellades, 1650 m, 19.-21.III.1940, Bierig (FMNH); 1 ♂, 1 ♀, San Marco Tarrazú, 1400 m, 24.IV.1943, Bierig (FMNH); 2 ♂♂: Tapanti, 1100 m, 9.IX.1939, Bierig (FMNH, cP); 1 ♂, 3 ♀♀: Zapote, 11.VI.1938, Bierig (FMNH, cP); 3 ♂♂, 4 ♀♀: San Isidro de Cor., 24.II.1940, Bierig (FMNH, cP); 2 ♂♂, 1 ♀, Embalse El Llano on Rio Macho, 5 km S Orosi, 1500 m, light, 25.V.1992 (NHMK); 1 ♀, ibidem, blacklight, 25.VI.1992, B. Ratcliffe *et al.* (NHMK); 1 ♂: ibidem, 8 km S Orosi, lights, 25.V.1992, M. Jameson (NHMK); 1 ♀, San Antonio de Escaza, 1300 m, unbaited flight intercept trap, XI.-XII.1997, W.

Eberhard (cP). Puntarenas: 1 ♂: Monteverde Rd. (trail near lab), flight intercept, 1.-2.VI.1993, C. Michalski (NHMK); 2 ♂♂: Puntarenas, Monte Verde, 1400 m, flight intercept trap, 4.V.1989, Ashe et al. (NHMK); 2 ♂♂: ibidem, leaf litter along stream, 9.V.1989, idem (NHMK); 1 ♀, ibidem 1270 m, 8.V.1989, idem (NHMK); 1 ♀, ibidem 1550 m, on logs, 16.V.1989, idem (NHMK); 1 ♂: ibidem Boehme house, 1570 m, # 321, flight intercept, idem (cP); 2 ♂♂: Reserva de Monteverde, 1500', 1.-4.VI.1979, J. M. & B. A. Campbell (CNC); 3 ♂♂: Monteverde area 1400-1700 m, 6.VI.-14.VI.1973, Erwin & Hesel, Central American Expedition (USNM); 1 ♂, 6 ♀♀: Las Cruces Botanical garden near San Vito, 3500', 27.-28.II.1985, # 2131, 2133, 2136, 2138, 2140, L. Herman (AMNH, cP); 4 ♂♂: Peñas Blancas Valley, 840/850 m, litter along stream, 18.V.1989, Ashe et al. (NHMK, cP); 1 ♀, Road to Cerro de la Muerte between km mark 100 & 101, Rt. 2, # 2538, 26.III.1991, L. Herman (NHMK); 1 ♀, 35 km NE San Vito nr. Las Alturas, Rio Bella Vista, Rd to Gravel Pit, 4300', # 2527, wet leaf litter, 23.III.1991, L. Herman (NHMK). Alajuela Prov.: 1 ♂, 2 ♀♀: 15.5 km N Jct. Rts. 126 (9) & 120, 1.2 km E on Rd to Virgen de Socorro, Rio Sarapiquí, 2300', # 2539, leaf litter from shore of Rio and Banks, 28.III.1991, L. Herman (NHMK, cP); 2 ♀♀: near Poasito, 6.6 km W Jct. Rt. 126 (9) & 120 (Heredia), 6600', Road to Volcan Poas, # 2496, litter near stream-alder, 16.III.1991, L. Herman (NHMK). Heredia: 1 ♂, 5 ♀♀: 3.2 km N Jct. Rts. 126 (9) & 120, 0.3 km E on road to San Rafael, 5600', # 2507 [collected with *S. perhostilis*], leaf litter on shore of stream, 18.III.1991, L. Herman (NHMK); 28 ♂♂, 32 ♀♀: 9.7 km N Heredia, Rt 9, 4200', # 1096, 2097, 2098, 2099, 2100, litter near stream, 9.II.1985, L. Herman (AMNH, cP). Cartago: 1 ♀, 13 km from summit of Volcan Iruzu, 8000 feet, # 2094, 8.II.1985, L. Herman (AMNH).

Proportional measurements of two males: (1) El Rincon, (2) Vara Blanca: wH: 37 (35.5); mdE: 23 (22); wP: 28.5 (27); IP: 32 (29); wEl: 39 (38.5); lEl: 37 (37); lS: 30 (30). Body length: 3.6-4.5 mm (fore parts: 2.0-2.1 mm).

Stenus (s. str.) perhostilis sp. nov.

Fig. 12

This new species is very close to *S. hostilis* Sharp.

DESCRIPTION. Black with strong metallic reflection, fore parts very coarsely and rugosely punctate, abdomen finely and densely (lateral areas of tergites) to sparsely (medial areas of tergites) punctate; golden pubescence short. Antennae brown, club dark brown; maxillary palpi yellowish to reddish yellow; legs light brown, about apical third of femora darker brown. Clypeus black, labrum blackish brown, moderately densely pubescent.

Length: 3.5-4.1 mm (fore parts: 2.0 mm).

Proportional measurements of the HT: wH: 35; mdE: 20.5; wP: 27; IP: 29; wEl: 36.5; lEl: 34.5; lS: 28.

Male. Femora enlarged, mesotibiae with a strong apical tooth, metatibiae with a ± distinct, very small preapical tooth. Metasternum very broadly and very deeply impressed transversely with a sharp longitudinal median furrow, punctuation very coarse, dense, interstices shining with faint groundsculpture. Sternites about the same as in *S. hostilis* but sternite 8 less deeply emarginate

(length of sternite: depth of emargination > 0.8), its pubescence nearly the same as in *S. hostilis*. Aedeagus with the apical portion of the median lobe (Fig. 12) narrower than in *S. hostilis*, parameres about the same.

TYPE MATERIAL. Holotype (♂) and 5 ♂♂, 4 ♀♀ - paratypes: COSTA RICA: Heredia, 27 km N Heredia, Rt. 9, 6000 feet, # 2102, litter, 9.II.1985 Lee Herman. HT and PTT in AMNH, PT also in cP.

Paratypes: COSTA RICA: Heredia: 9 ♂♂, 14 ♀♀: 3.2 km N Jct Rts. 126 (9) and 120, 0.3 km E on road to San Rafael, 5600', # 2507, leaf litter on shore of stream, 18.III.1991, L. Herman [collected with *S. hostilis*] (AMNH, NHMK, cP); 1 ♀, 22.8 km N Heredia, Rt. 9, 5700', # 2101, litter from stream, 9.II.1985, L. Herman (cP); 1 ♂: Cerro Chompipe 2 km N Monte de la Cruz, 2000 m, 10°5'20"N, 84°4'30"W, # 012A, berlese forest litter, 12.VI.1997, T. Anderson (AMNH); Alajuela Prov.: 2 ♂♂, 1 ♀, 15.5 km N Jct. Rts. 126 (9) and 120, 1.2 km E on Rd to Virgen de Socorro, Rio Sarapiquí, 2300', # 2539, leaf litter from shore of River and Banks, 28.III.1991, L. Herman (AMNH, cP); 1 ♂, 2 ♀♀: ibidem, # 2496, surface of rock in stream, 28.III.1991, Herman (AMNH, cP); 2 ♂♂, 4 ♀♀: near Poasito, 6.6 km W Jct. Rt. 126 (9) & 120 (Heredia), 6600', Road to Volcan Poas, # 2496, litter near stream-alder, 16.III.1991, L. Herman [collected with *S. hostilis*] (AMNH, cP); 3 ♂♂: 7.7 km N Jct. Rt. 126 (9) & 120, Road to Puerto Viejo, 4600', # 2501, litter near stream, 17.III.1991, L. Herman (AMNH); 1 ♂: ibidem # 2502 (cP); 1 ♀, 9.6 km N same as previous, # 2505 (AMNH); 1 ♀, 16.5 km NW Barva (Heredia), 6000', # 2495, litter near stream, 16.III.1991, L. Herman (AMNH). Puntarenas: 1 ♂: Monteverde, Rio Guacimel, 1400 m, washing "Biophytes" (probably misspelling for Bryophytes) on rocks, # 202, 15.V.1989, J. Ashe, R. Leschen, R. Brooks (NHMK). Cartago: 1 ♂, 2 ♀♀: 16.5 km N Capellades, Rd to Volcan de Turrialba, 8000', # 2488, leaf litter under hummock in pasture, 14.III.1991, L. Herman (AMNH); 1 ♂: Capellades, 1650 m, 19.-21.III.1940, Bierig (FMNH); 2 ♂♂, 1 ♀, Tapanti, 15.III.1940, Bierig (FMNH). PANAMA: 1 ♂, 1 ♀, Chiriqui: 2 km W Cerro Punta, 1700 m, berlese 371, forest litter, 20.V.1977, S. Peck (CNC); 2 ♀♀: P. Amistad, Las Nubes continental divide, 2000 m, 13.VI.1995, A. R. Gillogly (AMNH). GUATEMALA: 1 ♀ (cf. det.): Chiacaman, Vera Paz, Champion (syntype of *S. hostilis*) (NHML).

DISCUSSION. Punctuation/sculpture of the fore parts are even coarser and more irregular than in *S. hostilis*, interstices are more noticeable (and therefore shining) at places, e. g. on the frons and the pronotum. Punctuation of abdominal tergites is finer and distinctly sparser medially than in *S. hostilis*.

Stenus (s. str.) hospitalis sp. nov.

Figs. 13, 21

This new species is very close to *S. hostilis* Sharp.

DESCRIPTION. Black with aeneous tint, moderately shining, fore parts coarsely and very densely, at places rugosely, punctate, abdomen moderately coarsely (anteriorly) to finely (posteriorly) and densely punctate, middle of tergites impunctate, shiny; pubescence short. Antennae

brown, club dark brown; maxillary palpi yellowish; legs light brown, apical portion of femora darker brown. Clypeus black, labrum blackish brown, moderately densely pubescent.

Length: 3.7-4.5 mm (fore parts: 2.1 mm).

Proportional measurements of the HT: wH: 33.5; mdE: 21; wP: 27; IP: 30; wEl: 41; IEI: 39; IS: 33.

Male: Femora enlarged, mesotibiae with a strong apical tooth, metatibiae with a small preapical tooth. Metasternum broadly impressed (no distinct median furrow), coarsely and moderately densely punctate, interstices with shallow groundsculpture. Sternites 3-5 slightly denser punctate medially than laterally, without any impressions; sternite 6 with a shallow impression posteromedially, its punctation fine and denser than on the sides; sternite 7 with a very finely and densely punctate horseshoe-like distinct impression in posterior half, posterior margin broadly emarginate. Sternite 8 about as in *S. hostilis*. Aedeagus strongly resembling that of *S. hostilis* but the apical portion of the median lobe (Fig. 13) broader, its ventral median cavity narrower; parameres (Fig. 21) slightly longer than the median lobe, with one apical group of about 23 setae.

TYPE MATERIAL. Holotype (♂) and 2 ♀♀ - paratypes: MEXICO: Nuevo León: 31 km SW Linares, 750 m, # 64, under leaves, 24.III.1991, R. Brooks & R. Leschen. HT and 1 PT in NHMK, 1 PT in cP.

Paratypes: 1 ♂: same data as HT but # 34, under leaves in stream bed, 22.III.1991 (cP); 1 ♂, 1 ♀, 37 km SW Linares, 1300 m, 4.8 km S on Bosque Escuela Road, # 19, under stones/leaves, 21.III.1991, R. Brooks & R. Leschen (NHMK); 1 ♂: 37 km SW Linares, 1300 m, 0.5 km S on Bosque Escuela Road, # 45, flight intercept trap, 17.-24.III.1991, R. Brooks & R. Leschen (NHMK); 3 ♂♂: Veracruz: 4.4 mi N Huatusco, 4200 feet, # 380, cloud forest, base low vegetation along stream, 24.IV.1977, J. S. Ashe (FMNH, cP); 1 ♂: 6 km S of Maolinco, 1700 m, taken on herbaceous vegetation in secondary forest, 21.-22.IV.1978, Henry, Schaffner, Schuh (AMNH).

DISCUSSION. *Stenus hospitalis* sp. n. is clearly distinguished from *S. hostilis* and *S. perhostilis* by the completely different parameres. Concerning the external features the new species has broader elytra than both of those species, the punctation is comparatively finer (less shining habitus) and the medial areas of abdominal tergites are more distinctly/broader impunctate than in *S. hostilis*.

Stenus (s. str.) hospitator sp. nov.

Figs. 9, 14, 22

This new species resembles closely *S. subhostilis* Puthz and *S. hospitus* sp. n. and can only be distinguished from them by the male's sexual characters.

DESCRIPTION. Black with some aeneous tint, moderately shining, fore parts coarsely and very densely, at places rugosely punctate, abdominal punctation moderately coarse and very dense anteriorly, fine and dense posteriorly, median area of tergites sparsely punctate; pubescence short. Antennae brown, club dark brown; maxillary palpi yellowish; legs light brown, apical portion of femora darker brown. Clypeus black, labrum blackish brown, densely pubescent.

Length: 3.2-4.4 mm (fore parts: 1.8-2.0 mm).

PM of the HT: wH: 32; mdE: 19; wP: 25; IP: 27; wEl: 38; lEl: 36; IS: 29.

Male. Femora enlarged, mesotibiae with a strong apical tooth, metatibiae simple. Metasternum broadly impressed, coarsely and densely punctate, interstices with faint ground sculpture, a narrow longitudinal furrow in posterior midline. Sternites 3-5 simple; sternite 6 with a shallow posteromedian impression, more densely punctate than the sides, posterior margin shallowly emarginate; sternite 7 with a moderately narrow, shallow, finely and densely punctate posteromedial impression, posterior margin distinctly emarginate. Sternite 8 (Fig. 9), pubescence homogeneous, posterior emargination simple (not membranously margined as in *S. subhostilis*: see Fig. 10). Aedeagus, the median lobe with a prominent apical tip (Fig. 14); parameres (Fig. 22) with about 8 fine setae apically.

TYPE MATERIAL. Holotype (♂) and 19 ♂♂, 17 ♂♂- paratypes: MEXICO: Hidalgo: 2.3 mi N Tlanchinol, Hwy 105, 1690 m, # 418, cloud forest, sifting forest litter, 10.V.1977, J. S. Ashe [collected with *S. subhostilis* and *S. hospitus*]. HT and PTT in FMNH, PTT also in cP.

Paratypes: 33 ♂♂: ibidem # 419 (collected with 9 ♂♂ *S. subhostilis*, 1 ♂ *S. hospitus* and 33 ♂♂ spec.); 5 ♂♂, 6 ♀♀: ibidem # 420, in moss on trees; 1 ♂: ibidem # 417 (all FMNH and cP); Hidalgo: 1 ♂, 1 ♀, 7 mi NE Jacala, 23.VI.1975, Q. D. Wheeler (FMNH); 6 ♂♂, 16 ♀♀: Tlanchinol, 43km SW Huejutla, # 839, berlese cloud forest litter and fungi, 1.VIII.1983, S. & J. Peck # 84 (FMNH, cP); 5 ♂♂, 4 ♀♀: ibidem, 1500 m, # 794, cloud forest litter, S. & J. Peck # 39 (FMNH); 2 ♂♂, 1 ♀, 4.4 km N Tlanchinol, Hwy 105, 1420 m, # 7, forest litter sifted, 6.VII.1992, J. S. Ashe & H. Frania [collected with *S. hospitus*] (NHMK); 6 ♂♂, 1 ♀, ibidem # 9, treefall litter (NHMK); 7 ♂♂, 4 ♀♀: ibidem # 11, treefall litter (NHMK, cP); 1 ♀, ibidem # 12, sifted deep litter along intermittent stream (NHMK); 9 ♂♂, 7 ♀♀: ibidem # 13, moss on bark on logs (NHMK, cP); 1 ♂, 3 ♀♀: ibidem # 14, idem (NHMK); 3 ♂♂, 1 ♀, 3.2 km N Tlanchinol, # 21, treefall litter, 6.VII.1992 (NHMK); 2 ♂♂, 3 ♀♀: ibidem # 22, streamside litter, 8.VII.1992, idem (NHMK); 29 ♂♂, 16 ♀♀: ibidem # 28, treefall litter (NHMK, cP). Guerrero: 1 ♂: 71 km NE Atoyac de Alvarez, 1700 m, # 121, fresh treefall litter, 25.VII.1992, J. S. Ashe (NHMK); 1 ♀, 78.5 km N Jct. Rte 200 on Rte 134 to Ciudad Altamirano, 1770 m, # 146, streamside litter, 30.VII.1992, J. S. Ashe (NHMK). Puebla: No. 2, 8 mi SW Huauchinango, 6400', 16.VI.1961, G. W. Byers (NHMK); 1 ♂: 5 mi NE Teziutlán, 5000 feet, cloud forest, under bark hardwood, 16.-20.VII.1973, A. Newton [collected with *S. hospitus*] (FMNH). San Luis Potosi: 1 ♂, 1 ♀, 20 km W Xilitla, 1600 m, # 790, cloud forest litter, 12.VI.1983, S. & J. Peck # 35 (FMNH). Veracruz: 1 ♂: 17.5 km E Las Vigas, Hwy 140, 1930 m, # 43, treefall litter and wood chips, 4.VII.1992, J. S. Ashe & H. Frania (NHMK); 2 ♂♂: 3.2 km SW Las Vigas, Hwy 140, 2830 m, # 40, pine treefall litter, 1.VII.1992, idem (NHMK).

DISCUSSION. Comparing the general outline and the sculpture of the external features *Stenus hospitator* sp. n. is extremely close to *S. subhostilis* Puthz. The males can be easily distinguished by ventral aspect of the abdomen, especially of sternite 8.

Stenus (s.str.) hospitus sp. nov.

Figs. 5, 16

This new species resembles closely *S. subhostilis* Puthz and *S. hospikator*, which all have been collected together. For sure identification study of the male's sexual characters is necessary.

DESCRIPTION. Black with some aeneous tint, moderately shining, fore parts coarsely and very densely, at places rugosely punctate, abdominal punctation moderately coarse and very dense anteriorly, fine and dense posteriorly, median area of tergites sparsely punctate; pubescence short. Antennae brown, club dark brown; maxillary palpi yellowish; legs light brown, apical portion of femora darker brown. Clypeus black, labrum blackish brown, densely pubescent.

Length: 3.3-4.5 mm (fore parts: 1.9-2.0 mm).

Proportional measurements of a ♂- PT from 2.3 mi N Tlanchinol # 419: wH: 35; mdE: 22; wP: 27; IP: 28; wEl: 39; lEl: 36; lS: 31

Male. Femora enlarged, mesotibiae with a strong apical tooth, metatibiae simple. Metasternum flattened, very coarsely and very densely punctate medially, interstices deeply reticulate (the median area is completely dull in contrast to that of *S. subhostilis* and *S. hospikator*). Sternites 3-5 simple, more densely punctate medially than laterally; sternite 6 with a broad and shallow densely punctate posteromedian impression, posterior margin broadly emarginate. Sternite 8 (Fig. 5), pubescence homogeneous. Aedeagus (Fig. 16), apical portion of the median lobe very broadly excavated ventrally; parameres very slender, slightly longer than the median lobe, with about 7 apical setae.

TYPE MATERIAL. Holotype (♂): MEXICO: Las Vigas, Flohr, in NHML.

Paratypes: 1 ♂: "Mexico", "Truqui" (syntype of *S. hostilis* Sharp) (NHML); 1 ♂: "Mexico", "Flohr" (syntype of *S. hostilis*) (cP). Hidalgo: 2 ♂♂: 4.4 km N Tlanchinol, Hwy 105, 1420 m, # 07, sifted forest litter, 6.VII.1992, J. S. Ashe & H. Frania [collected with *S. hospikator*] (NHMK); 1 ♂: ibidem # 9, treefall litter [collected with *S. hospikator*] (NHMK); 1 ♂: 2 ♀♀: ibidem # 12, sifted deep litter along intermittent stream (NHMK); 1 ♂: ibidem # 13, moss on trees [collected with *S. hospikator*] (NHMK); 2 ♂♂: 3.2 km N Tlanchinol, 1420 m, # 22, streamside litter, 8.VII.1992, idem [collected with *S. hospikator*] (NHMK); 1 ♂: ibidem # 28, treefall litter [collected with *S. hospikator*] (NHMK); 1 ♂: 2.3 mi N Tlanchinol, Hwy 105, 1690 m, cloud forest, # 419, sifting litter along stream, 10.V.1977, J. S. Ashe (FMNH); 2 ♂♂, 2 ♀♀: 2.8 mi N Tlanchinol, 5200', fermenting wood chips, 9.-11.VII.1973, A. Newton (FMNH, cP). Oaxaca: 2 ♂♂: 18.7 mi S Valle Nacional, 5200', berlese litter cloud forest, 17.VIII.1973, A. Newton (FMNH, cP). Puebla: 1 ♂, 1 ♀, 5 mi NE Teziutlán, 5000', cloud forest, under bark hardwood, 16.-20.VII.1973, A. Newton [collected with *S. hospikator*] (FMNH). Veracruz: 1 ♂, 1 ♀, 4.4 mi Huatusco, 4200', # 377, cloud forest, sifting litter at edge of stream, 24.IV.1977, J. S. Ashe [collected with *S. subhostilis*] (FMNH); 1 ♂: 7.4 mi S Huatusco, 4200', # 380, cloud forest, base low vegetation along stream, 24.IV.1977, J. S. Ashe (FMNH); 1 ♂, 1 ♀, ibidem 1400 m, # 382, wooden pasture, litter in rock cracks along stream, idem (FMNH); 2 ♂♂, 3 ♀♀: ibidem 1360 m, # 384, cloud forest, sifting litter along stream, idem (FMNH, cP); 5 ♂♂, 4 ♀♀: 9.8 mi E Las Vigas, Hwy 140, 1930 m, # 417, cloud forest, sifting litter along

stream, 8.V.1977, J. S. Ashe (FMNH, cP); 1 ♂: 15.7 km E Las Vigas, Hwy 140, 1930 m, # 43, treefall litter and woodchips, 4.VII.1992, J. S. Ashe & H. Frania (NHMK); 1 ♂: ibidem # 44, streamside litter, 11.VII.1992, idem (NHMK); 1 ♂: 2.5 km S Jalapa, 1370 m, # 1, 25.V.1991, J. S. Ashe (NHMK); 1 ♂: ibidem # 2, leaf litter sifted (NHMK); 1 ♂: ibidem # 6, under bark, 26.V.1991 (NHMK); 1 ♂: ibidem # 16, idem (NHMK); 1 ♂: 3.5 km S Jalapa, 1400 m, # 29, sifting leaf litter along stream, idem (NHMK); 1 ♂: 4 km S Jalapa, 1350 m, # 38, *Hirschioporus*, 30.V.1991 (NHMK); 3 ♂♂: ibidem # 40, leaf litter along stream, idem (NHMK); 1 ♂: 6.7 km S Orizaba on rd. to Tlaquilpa, 1340 m, # 72, rotten banana leaves, 15.VII.1992, J. S. Ashe (NHMK).

DISCUSSION. Males of *Stenus hospitus* sp. n. can be easily distinguished from those of the related species by their dull median portion of the metasternum.

Stenus (s.str.) hostifer sp. nov.

Figs. 6, 15

This new species of the *hostilis*-group is remarkable by the broad head and the comparatively very coarse punctation.

DESCRIPTION. Black with some aeneous tint, moderately shining, fore parts very coarsely and extremely densely, at places confluent punctate, abdomen coarsely (anteriorly) to moderately finely (posteriorly) and very densely punctate, median portion of tergites only slightly less densely punctate than the sides; pubescence short. Antennae brown, club dark brown; maxillary palpi yellowish; legs light brown, apical portion of femora ± dark brown. Clypeus black, labrum blackish brown, moderately densely pubescent.

Length: 3.5-4.7 mm (fore parts: 2.0-2.2 mm).

Proportional measurements of the HT: wH: 38; mdE: 25; wP: 30; IP: 31.5; wEl: 41; lEl: 37; IS: 30.

Male. Femora enlarged, mesotibiae with a strong apical tooth, metatibiae simple. Metasternum flattened, very coarsely, moderately densely punctate, smooth interstices on posterior half often larger than diameters of punctures. Sternite 3 finely and densely punctate medially; sternite 4 and 5 with a finely and densely punctate shallow median impression; sternite 6 distinctly but shallowly impressed in posterior two thirds, finely and very densely punctate, posterior margin very shallowly emarginate; sternite 7 with a long, finely and very densely punctate median impression, posterior margin broadly emarginate. Sternite 8 (Fig. 6), apical emargination narrowly membranous (about as in *S. hostificus*), pubescence shorter and twice as dense as in *S. hospitator*. Aedeagus (Fig. 15), median lobe in anterior half with a sclerotized traverse; parameres as long as the median lobe, with about 6 apical setae.

Head broad, slightly less broad than the elytra, frons broad, very deeply concave, longitudinal furrows moderately distinct, median portion much narrower than each of the side portions; punctation very deep, coarse and extremely dense, diameter of largest punctures can be as large as medial cross section of 2nd antennal segment, interstices very sharp, much smaller than half diameter of punctures. Antennae short, extending to posterior third of the pronotum when reflexed,

penultimate segments about as broad as long. Pronotum nearly as broad as long, sides strongly convex, convexely narrowed in anterior half, distinctly concave posteriorly; a sharp longitudinal median furrow in about posterior half where there is also a transverse impression laterally; punctation slightly coarser than on the frons, also extremely dense but mostly separate. Elytra broader than long, shoulders prominent, sides moderately straightly broadened, distinctly restricted in posterior quarter, sutural and humeral impressions shallow; punctation about same as on pronotum, but less regular, confluent on posterior half, where some long rugae are obliquely directed from sides toward suture (number of rugae and extension of rugose area variable but comparatively small), interstices rarely nearly as large as half diameter of punctures. Abdomen with tricuspid base of tergites, paratergites moderately broad, those of segment 4 about as broad as 10th antennal segment, with a very dense row of coarse punctures, tergite 7 with a distinct membranous fringe apically (fully winged species); punctation extremely dense throughout, punctures of tergite 3 as large as widest cross section of antennal segment 3, punctures of tergite 7 well as large as one medial eye facet, tergite 10 moderately finely and moderately sparsely punctate; interstices on middle of tergites repeatedly as wide as diameter of punctures, but no distinct shining area there as in some of the related species. Legs robust, metatarsi more than three quarters as long as metatibiae, 1st segment distinctly longer than the following 2 combined, one third longer than the last segment. Abdomen with ± distinct ground sculpture anteriorly, tergites 7-10 distinctly reticulate.

TYPE MATERIAL: Holotype (♂) and 1 ♀ - paratype: MEXICO: Chiapas, 1.0 km E Tenejapa, # 404, oak-pine sweetgreen forest, 2090 m, litter along stream and rock cracks, 2.V.1977, J. S. Ashe: FMNH.

Paratypes: MEXICO: 1 ♂, 1 ♀, Chiapas, 2.6 mi S Rayon, Hwy 195, # 411, cloud forest, 1700 m, sifting litter along stream, 5.V.1977, J. S. Ashe (FMNH, cP); 1 ♂, 1 ♀, Chiapas, Yerba Buena, 20 mi N. Bochil, cloud forest, 10.VI.1969, D. E. Bright (CNC). GUATEMALA: 1 ♂: Baja Verapaz, 8 km SSW Purulha, 1650 m, sifting litter, wet montane forest, 24.XI.1991, R. Baranowski (ZML); 1 ♂: 8 km S Purulha, 1650 m, # 153, pine leaf litter, 29.VI.1993, R. Anderson (NHMK); 1 ♂: ibidem # 148, pile of grass trimmings, 29.VI.1993, J. S. Ashe (cP); 1 ♀, Quetzaltenango, 14.4 km SW Zunil, 1340 m, # 016, 18.VI.1993, J. S. Ashe & R. Brooks (NHMK).

DISCUSSION. *Stenus hostifer* sp. n. can be distinguished from *S. subhostilis*, *S. hospitator*, *S. hospitus* and *S. hospitalis* by the broader head and the very coarse punctation, from *S. perhostilis* by the denser punctation and less shining habitus, from *S. hostiferoides* by the coarse punctation, from *S. hostificus*, from the variable *S. hostilis* and from all other relatives by the male sexual characters.

Stenus (s. str.) hostificus sp. nov.

Figs. 7, 18, 23

This new species is very close to *S. hostifer*.

DESCRIPTION. Black with some aeneous tint, moderately shining, fore parts very coarsely and extremely densely, at places confluent punctate, abdomen coarsely (anteriorly) to moderately

finely (posteriorly) and very densely punctate, median portion of tergites only slightly less densely punctate than the sides; pubescence short. Antennae brown, club dark brown; maxillary palpi yellowish; legs light brown, apical portion of femora \pm dark brown. Clypeus black, labrum blackish brown, moderately densely pubescent.

Length: 3.5-4.5 mm (fore parts: 2.0-2.1 mm).

Proportional measurements of the HT: wH: 35; mdE: 22; wP: 27; IP: 29; wEl: 36.5; lEl: 34.5; IS: 28.

Male: Legs and abdominal characters same as in *S. hostifer*, but apical emargination of sternite 8 deeper and the pubescence of the sternite denser (Fig. 7). Aedeagus (Fig. 18), median lobe also with a sclerotized traverse in anterior half, apical portion different from that of *S. hostifer*; parameres (Fig. 23) as long as the median lobe, twisted in apical third, with a transverse element in basal third and with 6-7 long apical setae.

TYPE MATERIAL. Holotype (σ): HONDURAS: Santa Barbara, Mt. Santa Barbara 11.5 km S & 5.6 km W Peña Blanca, 14°57'N, 88°05'W, 1800 m, # 164, treefall litter, 20.VI.1994, R. Brooks & J. S. Ashe: in NHMK.

Paratypes: 5 σ σ , 2 f f : sama data as HT but # 163, beating stick pile (NHMK, cP); 1 σ , 2 f f : ibidem # 166, beating stick pile (NHMK). MEXICO: 1 σ : Chiapas: Union Juarez, NE slope Volcan Tacana, 1720 m, # 163, on weedy vegetation open, damp spots, 16.XII.1963, H. Frania [collected with *S. subhostilis*] (AMNH). GUATEMALA: 2 σ σ , 4 f f : Puerta Parada near Guatemala City, sifting litter in mixed *Cupressus* forest, 10.XI.1991, R. Baranowski (ZML, cP); 1 f (very small specimen) same data (ZML); 3 f f : ibidem 1480 m, sifting litter in mixed *Cupressus* forest, 2.XI.1991, R. Baranowski (ZML); 1 f (cf. det): Cerro Zunil, Champion (syntype of *S. hostilis*) (NHML). COSTA RICA: 1 σ : Puntarenas: Wilson Bot. Garden (Las Cruces Biol. Sta.) near San Vito, 1200 m, # 053, very fresh treefall, 26.V.1993, J. S. & A. K. Ashe (NHMK).

DISCUSSION. *Stenus hostificus* sp. n. is somewhat less coarsely punctate than *S. hostifer*. Sure identification might only be possible by having the respective males.

Stenus (s. str.) hostiferoides sp. nov.

Figs. 8, 17

This new species extremely resembles *S. hospitator*.

DESCRIPTION. Black with some aeneous tint, moderately shining, fore parts coarsely and very densely, at places rugosely punctate, abdominal punctation moderately coarse and very dense anteriorly, fine and dense posteriorly, median area of tergites sparsely punctate; pubescence short. Antennae brown, club dark brown; maxillary palpi yellowish; legs light brown, apical portion of femora darker brown. Clypeus black, labrum blackish brown, densely pubescent.

Length: 3.6-4.5 mm (fore parts: 2.1-2.2 mm).

Proportional measurements of the HT: wH: 35; mdE: 21; wP: 27; IP: 29; wEl: 38.5; lE: 37.5; IS: 32.

Male. Femora enlarged, mesotibiae with a strong apical tooth, metatibiae simple. Metasternum flattened, impressed posteromedially, punctation coarse and moderately dense, smooth interstices can be larger than diameters of punctures. Sternite 3 flattened in posterior middle, posterior margin shallowly emarginate; sternite 4 with a shallow impression medially, which is finer and less densely punctate than the sides of sternite; sternite 5 with a distinct medial impression, same punctation as sternite 4; sternite 6 broadly impressed medially, finely and densely punctate and pubescent, interstices reticulate; sternite 7 deeply impressed, very finely and densely punctate and pubescent, posterior margin moderately deeply emarginate. Sternite 8 (Fig. 8) with a distinct medial impression, which is moderately finely and very densely punctate and pubescent, sides of apical emargination narrowly membranous. Aedeagus, apical portion of median lobe (Fig. 17) broadened with a prominent median tip; parameres slightly longer than the median lobe, very slender, with about 3 apical setae.

TYPE MATERIAL. Holotype (♂) and 1 ♀ - paratype: MEXICO: Chiapas: 41.8 km SE Comitán, Ruines Chinkoltic, 1490 m, # 63, treading margin of stream, 5.VI.1991, J. S. Ashe: both in NHMK.

Paratype: 1 ♂: Chiapas: El Rincon, 13.-14.V.1969, J. M. Campbell (collected with *S. hostilis*) (CNC).

DISCUSSION. Identification of this new species at present is only possible by studying the male sexual characters.

Stenus (s. str.) subhostilis Puthz
(Fig. 10)

Stenus subhostilis Puthz, 1968: 8, Annotnes zool.bot., Bratislava, 48.

NEW RECORDS. MEXICO: 1 ♂: "Mexico, Flohr" (syntype of *S. hostilis*) (NHML). Chiapas: 1 ♂, 3 ♀♀: 6.9 mi S Jitotol, Hwy 195, 17°02'N, 92°52'W, 1650 m, # 410, pine sweetgum forest, sifting litter in barranca, 5.V.1977, J. S. Ashe (FMNH); 1 ♂: 2.6 mi S Rayon, Hwy 195, 1700 m, # 411, cloud forest, sifting litter along stream, 5.V.1977, J. S. Ashe (collected with 1 *S. hostifer*) (FMNH); 7 ♂♂, 1 ♀, Unión Juárez, NE slope Volcan Tacana, on weedy vegetation, open damp spots, 1720 m, # 163, 16.XII.1975, H. Frania [collected with 1 ♂ *S. hostificus*] (AMNH, cP). Durango: 1 ♂, 2 ♀♀: bankos 10 mi SW Ciudad, 8500', 17.VI.1971, S. Peck (CNC); 1 ♂, 1 ♀, 18 km W El Salto, 2500 m, # 2, 12.VI.1986, M. Sörensen & B. Mårtensson (ZML); 5 ♂♂, 3 ♀♀: 30 km W El Salto, 2200m, # 3, 13.VI.1986, idem (ZML, cP). Hidalgo: 9 ♂♂: 2.3 mi N Tlanchinol, Hwy 105, 1690 m, # 419, sifting litter along stream, 10.V.1977, J. S. Ashe (collected with numerous *S. hospitor* and 1 *S. hospitus*) (FMNH, cP); 1 ♀, Hwy 105, Tlanchinol, 2000 m, # 24, 25.VI.1986, M. Sörensen & B. Mårtensson (ZML). Jalisco: 11 ♂♂, 11 ♀♀: 25 km W Atenquique, Volcan de Colima, 1600 m, # 15, 19.VI.1986, M. Sörensen & B. Mårtensson (ZML, MHNG, MNS, cP). Mexico: 15 ♂♂, 10 ♀♀: 2.4 mi S Tenancingo, Hwy 55, 7100 feet, # 374, oak-pine forest, sifting litter along stream, J. S. Ashe (FMNH, cP); 2 ♂♂, 2 ♀♀: Valle del Bravo, Rio de Molino, # 367, oak pine forest, pine needles in rock cracks along stream, 21.IV.1977, J. S. Ashe (FMNH, cP). Oaxaca: 3 ♂♂,

1 ♀, Rte 131, 127 km S Oaxaca, 6000', 11.V.1971, J. M. Campbell (CNC); 4 ♂♂, 1 ♀, 8 km N Oaxaca City, 1700 m, stream bank in tropical forest (partly sifting), 16.XI.1989, R. Baranowski (ZML, cP); 1 ♂, 3 ♀♀: ibidem 10 km N Oaxaca City, 1800 m, idem, 12.XI.1989, idem (ZML); 5 ♂♂, 3 ♀♀: ibidem 18 km N Oaxaca City, 2400 m, sifting litter at road side, pine forest, 17.XI.1989, idem (ZML, cP); 1 ♂, 1 ♀, 38 km S Miahuatlan, 2600 m, sifting litter near small stream in mixed pine forest, 18.XI.1989, R. Baranowski (ZML, cP); 1 ♂: 2.4 mi S Suchixtepec, Hwy 175, at Rio Molino, 2250 m, sifting litter along stream, 28.IV.1977, J. S. Ashe (FMNH); 4 ♂♂, 2 ♀♀: 3.0 mi E Ixtlan de Juarez, Hwy 105, 1690 m, # 393, sifting litter along stream, 27.IV.1977, J. S. Ashe (FMNH, cP). San Luis Potosi: 1 ♂: 21 km S Tamazunchale hwy 85, 820 m, under stone, 10.VII.1990, J. S. Ashe et al. (NHMK). Veracruz: 4 ♂♂, 7 ♀♀: 4.4 mi N Huatusco, 4200', # 377, cloud forest, sifting litter along stream, 24.IV.1977, J. S. Ashe (collected with *S. hospitus*) (FMNH, cP); 5 ♂♂, 1 ♀, ibidem # 380, base low vegetation along stream, 24.VII.1977, J. S. Ashe (collected with 1 *S. hospitus* and 3 ♂♂ of a new species near *S. subhostilis*) (FMNH).

DISCUSSION. Males of this species can be easily identified by the narrow apical notch of sternite 8, which is broadly membranously margined (Fig. 10). There are at least 2 undescribed new species in Central America, which very strongly resemble *S. subhostilis* but which have different aedeagi. *S. subhostilis* has been captured together with some other species of the *hostilis*-group. When females of different species have been found in the same sifting positive identification of the females to the individual species is impossible.

Stenus (s. str.) baranowskii sp. nov.

Figs. 1, 4, 19

This new species is remarkable within the *hostilis*-group by the comparatively narrow and shallowly concave frons and the nearly straight medial eye margins (Fig. 1).

DESCRIPTION. Black with slight aeneous tint, moderately shining, fore parts coarsely, densely and at parts rugosely punctate, abdomen moderately coarsely (anteriorly) to moderately finely (posteriorly), very densely punctate; median portions of tergites narrowly more sparsely punctate; pubescence short, dense. Base of antennae light brown, medial segments brown, club darker brown; maxillary palpi yellow; legs light brown, apical portions of femora rather distinctly set off dark brown, base of tibiae slightly darker than rest of tibiae. Clypeus and labrum black, densely pubescent.

Length: 3.4-4.5 mm (fore parts: 2.0-2.1 mm).

Proportional measurements of the HT: wH: 34.8; adE: 18; wP: 28; IP: 29.5; wEl: 40; lEl: 38.5; lS: 34.

Male. Femora enlarged, mesotibiae with a strong apical tooth, metatibiae with a distinct preapical tooth. Metasternum broadly impressed, posteromedian portion coarsely and densely punctate, anteromedian portion much less coarsely, very densely punctate, area between declivous coarsely punctate lateral portions and medial portion moderately coarsely and very sparsely punctate, interstices smooth. Sternite 4 more densely punctate medially than laterally; sternite 5 shallowly

impressed, moderately finely and moderately densely punctate medially, posterior margin very shallowly emarginate; sternite 6 with a distinct, shallow, moderately densely punctate posteromedial impression, posterior margin shallowly emarginate; sternite 7 distinctly impressed in posterior middle, punctation slightly finer than on sternite 6, posterior margin distinctly, broadly emarginate. Sternite 8 (Fig. 4), apical emargination narrowly membranous, pubescence moderately dense. Aedeagus, apical portion of the median lobe (Fig. 19) subtriangularly narrowed with a posteromedial excavation densely set with sclerotized teeth, internal sac with a strong expulsion clasp; parameres much longer than the median lobe, with about 50 moderately fine setae in apical third.

Frons less broad than in *S. hostilis*, medial eye margins nearly straight, divergent posteriorly (concave in *S. hostilis*: see Figs. 1, 2), median portion of frons distinctly narrower than each of the side portions, distinctly elevated, not fully extending to the level of medial eye margins (in general the frons is much less concave than in *S. hostilis* and its closest relatives). Rest of external features very near *S. hostilis*, but the elytra broader, with a rugose vortex on about lateral middle (while in *S. hostilis* there are rugae obliquely passing from lateral sides toward suture).

Variability: The lateral elytral vortex, anyway not very large, can be smaller and less distinct.

TYPE MATERIAL. Holotype (♂) and 4 ♂♂, 3 ♂♂- paratypes: MEXICO: Oaxaca: 11 km N Oaxaca City, 1950 m, sifting litter in tropical forest near small stream, 20.XI.1989, R. Baranowski. HT and PTT in ZML, PTT also in cP.

Paratypes: 2 ♂♂: 10 km N Oaxaca City, 1800 m, stream bank in tropical forest (partly sifting), 12.XI.1989, R. Baranowski (ZML); 6 ♂♂, 1 ♀, 8 km N Oaxaca City, 1700 m, stream bank in tropical forest (partly sifting), 16.XI.1989, R. Baranowski (ZML, cP). Mexico: 2 ♂♂, 1 ♀, Valle de Bravo, Rio de Molino, # 367, oak-pine forest, pine needles in rock cracks along stream, 21.IV.1977, J. S. Ashe (FMNH, cP); 1 ♂: 7.4 mi N Acambay, Hwy 55, # 365, oak-pine forest, sifting leaves along stream, 20.IV.1977, J. S. Ashe (FMNH). Michoacan: 1 ♂: Morelia, II.1908, Heyne (cP).

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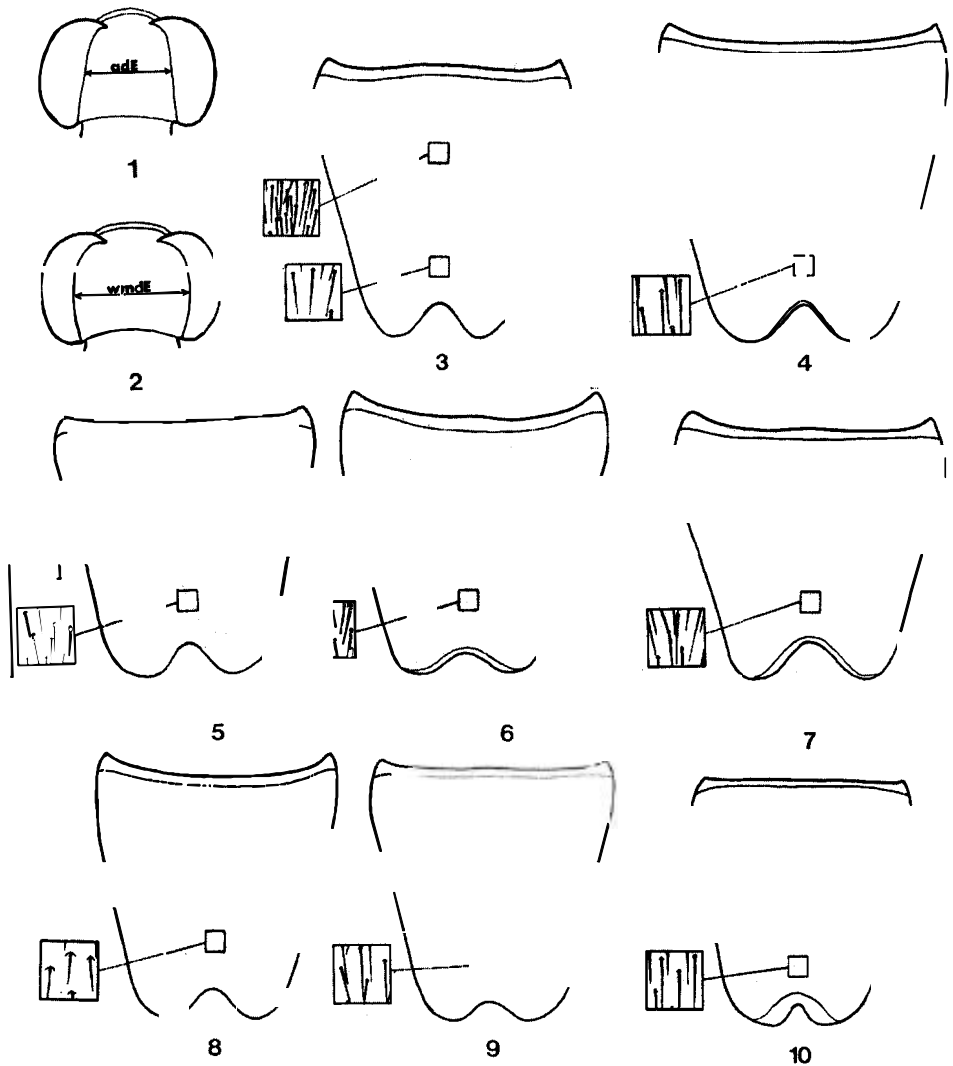
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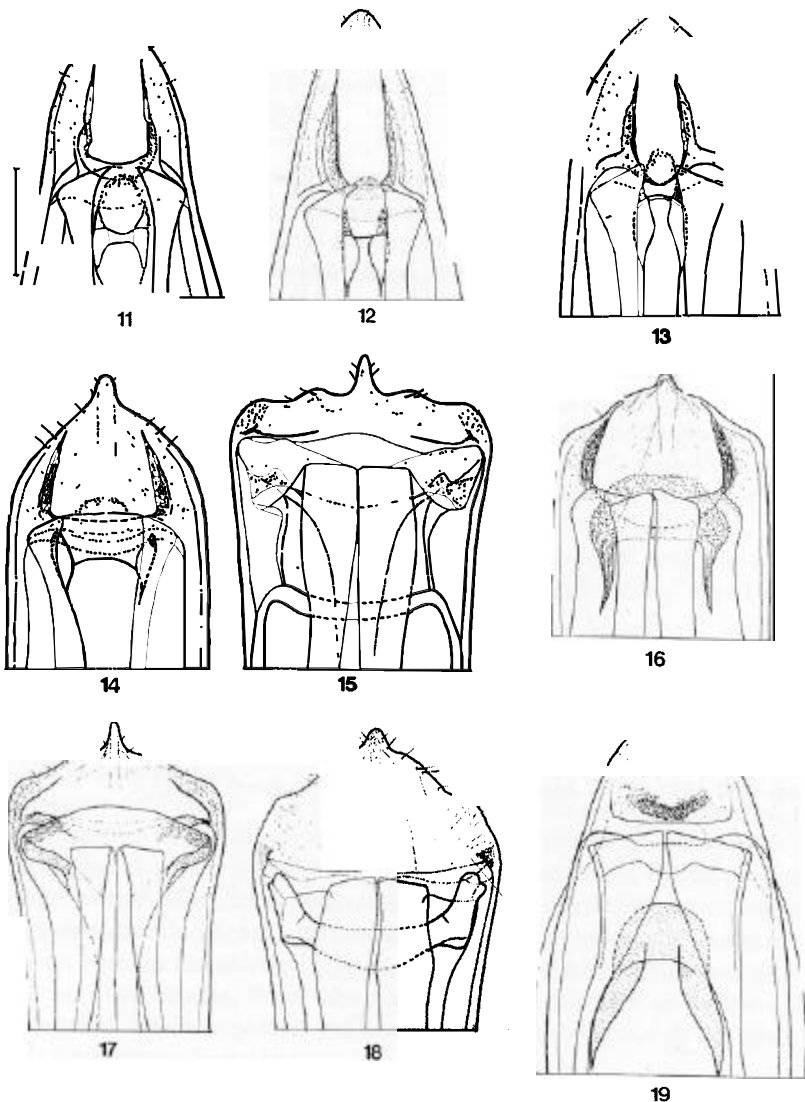
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Figs 1-10: Dorsal outline of head (adE = average distance between eyes; wmdE = maximum distance between eyes) (1, 2), sternite 8 of male (3-10) of (1, 4) *Stenus baranowskii* sp. nov. (PT), (2, 3) *S. hostilis* Sharp (El Rincon), (5) *S. hospitus* sp. nov. (PT), (6) *S. hostifer* sp. nov. (PT), (7) *S. hostificus* sp. nov. (PT), (8) *S. hostiferoides* sp. nov. (HT), (9) *S. hospitator* sp. nov. (PT), (10) *S. subhostilis* Puthz (2,4 mi S Tenancingo). Scale = 0.1 mm.



Figs 11-19: Apical portion of median lobe: (11) *Stenus hostilis* Sharp (El Rincon), (12) *S. perhostilis* sp. nov. (PT), (13) *S. hospitalis* sp. nov. (PT), (14) *S. hospitator* sp. nov. (PT), (15) *S. hostifer* sp. nov. (HT), (16) *S. hospitus* sp. nov. (PT), (17) *S. hostiferoides* sp. nov. (HT), (18) *S. hostificus* sp. nov. (PT), (19) *S. baranowskii* sp. nov. (PT).- Scale = 0.1 mm.



Figs 20-23: Left paramere of (20) *Stenus hostilis* Sharp (El Rincon), (21) *S. hospitalis* sp. nov. (PT), (22) *S. hospitor* sp. nov. (PT), (23) *S. hostificus* sp. nov. (PT).- Scale = 0.1 mm.