STUDIES ON THE FAUNA OF SURINAME AND OTHER GUYANAS: No. 48.

HYDROMETRIDAE OF SURINAME AND THE AMAZON,

WITH ADDITIONAL RECORDS OF OTHER NEOTROPICAL SPECIES (HEMIPTERA - HETEROPTERA)

by

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This study is based on material collected by Dr. P. H. VAN DOESBURG Jr. in Suriname and by other workers during investigations sponsored by the "Max-Planck-Institut für Limnologie, Abt. Tropenökologie" at Plön, director Prof. Dr. H. SIOLI; the "Instituto Nacional de Pesquisas da Amazonia" at Manaus and Brasilia, director Prof. Dr. D. BATISTA. Additional material by an unknown collector from Perú as well as specimens from the Caribbean region collected by Dr. P. WAGENAAR HUMMELINCK (Utrecht) are included in this synopsis.

Specimens have been deposited in: The Rijksmuseum van Natuurlijke Historie at Leiden (L), the collection of the I.N.P.A. at Manaus (A), the collection of the Koninklijk Belgisch Instituut voor Natuurwetenschappen at Brussels (B) and the Zoölogisch Laboratorium at Utrecht (U).

The author is indebted to Dr. P. H. VAN DOESBURG Jr. (Leiden Museum) and Dr. H. H. WEBER (Schülp, D.B.R.), who is in charge of the Brazilian water bugs, for permission to study the collections in their charge and for supplying additional locality data. Mrs. E. DE GROOT-TAAT (Utrecht) corrected the greater part of the manuscript and to Dr. I. LANSBURY (Oxford) many thanks are due for reading the definitive text critically.

This work was made possible by a grant from the Foundation for Scientific Research in Surinam and the Netherlands Antilles.

There are about seventy five known species of Hydrometridae often called marsh

TABLE 4

SPECIES AND LOCALITIES OF HYDROMETRIDAE DISCUSSED IN THIS PAPER

Species	Florida	Puerto Rico	Guadeloupe	Marie-Galante	Martinique	*Suriname*	Pará	Amazonas	Mato Grosso	Perú	figures
Bacillometra fuallagana										×	172–173
Bacillometra ventralis								×			174
Hydrometra argentina						×	×	×	×		175–177
Hydrometra caraiba			×	×	×			×			178–181
Hydrometra comata						×					182–183
Hydrometra guianana						×	×	×	×		184–188
Hydrometra australis	×	×									189

treaders or water measurers. They are mostly found in the littoral zone of aquatic habitats. The legs of the Hydrometridae are sensitive to vibration caused by movement by organisms just below the surface film. By this means they are able to detect and spear their prey through the surface film. Despite their ungainly elongate appearance they can move very quickly over open water.

There are five genera in the family: *Limnobatodes* Hussey 1925 and *Bacillometra* Esaki 1927 are confined to the Neotropical Region, whereas *Hydrometra* Lamarck 1801 is a large cosmopolitan genus (about 70 species known); the other two are monotypic Old-World genera.

The family can be separated from other Hemiptera-Heteroptera by the following characteristics: Body linear, except for *Limnobatodes*, seven or more times as long as wide, head longer than pronotum. Tarsal claws subapical but last tarsal segments not cleft.

The American genera of the family can be separated as follows (HUNGERFORD & EVANS 1934, HUNGERFORD 1935):

1a. Antennae 5-segmented, pronotum scarcely longer than wide . . *Limnobatodes*
1b. Antennae 4-segmented 2

2a. Mesosternum sulcated along median longitudinal line, metasternum with two distinct longitudinal sutures. . . . . *Bacillometra*
2b. Meso- and meta-sternum without longitudinal sulcations . . . . *Hydrometra*

Since the material studied is rather scanty (see Table 4) no Key to species for the region considered is given. HUNGERFORD & EVANS 1934 give a key to the *Hydrometra* of the World, but the various short publications of DRAKE et al. have to be consulted for correct identification.

Limnobatodes paradoxus Hussey – an aberrant species from Honduras – was not represented in the material examined.

Bacillometra fuallagana Drake, 1956

Bacillometra fuallagana DRAKE, 1956, p. 155–156 (Perú).
Bacillometra fualagana (!); DRAKE & LAUCK 1959, p. 50 (checklist).

PERÚ.

> PERÚ: Huallaga Central, Huánuco, 750 m, X.1961, 7 ♂, 12 ♀ (U); Cucharas, R. Fuallago, VII.1957, 1 ♂, (lgt. FLW, det. Drake, L) all macropterous.– The specimen identified by DRAKE is probably from the type series although it does not bear any indication being paratype.

Length, male 8.8–*8.9*–9.2, female 9.8–*10.0*–10.1; pronotal humeral width, male 0.8–0.9, female 0.9–1.0 (all measurements in mm and based on five specimens of each sex).

The male identified by DRAKE is 8.5 mm long, but otherwise it is identical with the males from Huánuco.

Length of the antennal segments: I = 0.6, II = 1.2, III = 3, IV = 2.1 mm.

In HUNGERFORD 1935 this species runs to *B. woytkowskii* Hungf. The fourth antennal segment is, however, about twice as long as the second in *B. fuallagana* and slightly shorter than the second in *B. woytkowskii*. Apex of abdomen, male Fig. 172, female Fig. 173.

Bacillometra ventralis Esaki, 1927

Bacillometra ventralis ESAKI, 1927, p. 181–184 (Guyane Française).
Bacillometra ventralis; HUNGERFORD & EVANS 1934, p. 34–35, pl. 9.
Bacillometra ventralis; HUNGERFORD 1935, p. 123 (key).
Bacillometra ventralis; DRAKE & LAUCK 1959, p. 50 (check-list).

GUYANE FRANÇAISE; BRASIL!, Amazonas.

> BRASIL: Amazonas, Upper Rio Negro, Rio Marauia, mountain stream, *A. 500*, 26.I.1963, 1 ♀ brachypterous (E. J. Fittkau, A).

Length 6.5 mm, pronotal humeral width 0.6 mm, greatest width of abdomen 1.0 mm.

Colour brownish with darker dots, abdomen with a rather distinct pattern of lighter and darker subquadrate patches.

Length of head 2.3 mm, anteocular part 1.4, postocular part 0.6 mm. Clypeus rather long, truncate apically. Length of antennal segments I = 0.45, II = 1.0, III = 2.2, IV = 1.2 mm .Length of rostrum 2.0 mm.

Length of pronotum 0.9 mm, mesonotum covered by pronotum. Collar pits of pronotum rather indistinct, central transverse band of 7 distinct pits, a fan-shaped pattern of pits on posterior half. Acetabula without distinct pits. Second tarsal segment shorter than either first or third segment.

Connexiva rather broad, their width together 0.45 mm at widest part of abdomen. Apex of abdomen Fig. 174.

Hydrometra argentina Berg, 1879

Hydrometra argentina Berg, 1879, p. 184 (Argentina).
Hydrometra mensor White, 1879, p. 267 (Amazonas).
Limnometra chilensis Reed, 1901, p. 197 (Chile).
Hydrometra kirkaldyana Torre-Bueno, 1926, p. 104–105 (Amazonas).
Hydrometra mensor; Torre-Bueno 1926, p. 103–104.
Hydrometra husseyi Torre-Bueno, 1926, p. 111–113 (Perú, Paraguay).
Hydrometra husseyi; Jaczewski 1928, p. 81–82, pl. 5 fig. 1–4 (Paraná).
Hydrometra mensor; Hungerford & Evans 1934, p. 103–104.
Hydrometra husseyi; Hungerford & Evans 1934, p. 105, pl. 12.
Hydrometra argentina; Drake 1953, p. 40–41 (Argentina, Chile, Paraguay, Uruguay, Bolivia, Perú, Brasil).
Hydrometra argentina; Drake 1954, p. 61–62.
Hydrometra argenitna (!); Drake & Lauck 1959., p. 51 (checklist).
Hydrometra argentina; Bachmann 1965, p. 131 (Argentina).

Panamá; Venezuela; Trinidad; Suriname!, Suriname; Brasil, Amazonas, Pará, Mato Grosso!, Paraná; Perú; Bolivia; Chile; Argentina; Paraguay; Uruguay.

Suriname: Zanderij, 28.VII.1961, small pool, 2 ♀ brachypterous (D. C. Geijskes, L); Paramaribo, 16.IX.1960, at light, 1 ♀; same, V.1962, 1 ♀ macropterous; Paramaribo, Cultuurtuin, in sawah (rice-field), *P. 2002*, 9.VII. 1962, 1 ♀ macr. (P. H. van Doesburg jr., L).

BRASIL: Amazonas, Lower Solimões, Ilha Careiro, Paraná de Terra Nova, trembling meadows, *A. 130*, 15.III.1960, 1 ♀ macr.; same, Lago Redondo, on floating plants, *A. 138*, 16.III.1961, 4 ♀ macr., 2 ♀ brach.; junction of R. Solimões and Amazonas, *A. 139–2*, 16.III.1961, 1 ♂ macr.; Lower Solimões, Paraná Careiro, mouth of Paraná Cambixe, *A. 227*, 31.VII.1961, 1 ♀ macr.; Rio Solimões, Igarapé Espirito Santo, *A. 248*, 31.VIII.1961, 2 ♀ macr.; Rio Cuieiras, Igarapé Cachoeira, *A. 298*, 19.XII.1961, 1 ♂ macr. (E. J. Fittkau, A); Careira, *83*, 7.X.1963, 1 specimen (abdomen lost); same, *240*, 8.IV.1964, 1 ♀ macr.; Lago Redondo, 7.X.1963, 2 ♂, 1 ♀ macr.; same, 4.I.1964, 1 ♂ macr. (G. Marlier, B). Pará, Quatipuru, Campo Grande, flooded several times each year by seawater, *A. 513–2*, 3.IV.1963, 2 ♀ brach. Mato Grosso, Chavantina, Rio das Mortes, Igarapé, *A. 562–2*, 20.VIII.1965, 1 ♂ macr. (Fittkau, A).

Length, macropterous male, 9.5–10.2, macropterous female 11.5–11.7, brachypterous female 12.0; pronotal humeral width, macropterous male 0.49–0.50, macropterous female 0.51–0.52, brachypterous female 0.42–0.43 (all measurements based on two specimens of each form). The specimens of Zanderij are 8.1 and 8.7 mm long and represent full grown larvae.

Colour yellowish to brownish, generally without distinct pattern of darker patches. Head with anteocular part 1.5–*1.75*–1.90, postocular part 0.74–*0.85*–0.95 mm long. Clypeus conical. Length of antennal segments I = 0.40–*0.45*–0.50, II = 0.80–*1.01*–1.15, III = 1.6–*2.0*–2.2, IV = 0.70–*0.85*–0.90 mm. Pronotum generally without pits, sometimes very faint indications of pits present. Acetabula of fore and middle legs generally with two pits, sometimes no pits; acetabula of hind legs generally unpitted. Tip of abdomen male Fig. 175–176, female Fig. 177.

A widespread species in South America, seemingly more common in the southern part.

Hydrometra caraiba Guérin-Méneville, 1856

Hydrometra caraiba GUÉRIN-MÉNEVILLE, 1856, p. 173 (Cuba).
Hydrometra agenor KIRKALDY, 1902, p. 280–281 (Ecuador).
Hydrometra championana TORRE-BUENO, 1926, p. 119–121 (Central America).
Hydrometra championana; HUNGERFORD & EVANS 1934, p. 94, pl. 10 (Cuba, Haiti, Colombia, Brasil).
Hydrometra caraiba; DRAKE & LAUCK 1959, p. 49–51 (synonymy and checklist; Greater Antilles, Central and Northern South America).

CUBA; JAMAICA; HISPANIOLA, Haiti; PUERTO-RICO; GUADELOUPE!; MARIE-GALANTE!; MARTINIQUE!. – MÉXICO; GUATEMALA; EL SALVADOR; HONDURAS; NICARAGUA; COSTA-RICA; PANAMÁ; COLOMBIA; VENEZUELA; GUYANA; BRASIL, Amazonas; ECUADOR; PERÚ.

GUADELOUPE: Pond de Boisvin, S. of Moule, *Sta. 729*, 29.I.1964, 1 ♂ brachypterous (P. Wagenaar Hummelinck, U).
MARIE-GALANTE: Mare Lagon, Les Galeries, Capesterre, *749*, 2.II.1964, 1 ♀ brach. (Hummelinck, U).
MARTINIQUE: Rivière Oman, W. Sainte Lucie, *851*, 12.VII.1967, 4 ♂, 2 ♀ macropterous (Hummelinck, U).
BRASIL: Amazonas, Rio Solimões, Igarapé Sta. Rita, *A. 232*, 23.VIII.1961, 1 ♀ brach., 2 ♀ macr.; R. Solimões, Lago Catua, *A. 258*, 11.IX.1961, 1 ♀ brach. (E. J. Fittkau, A).

Length male 12.2–*13.5*–14.0; female 13.4–*14.6*–15.6; pronotal humeral width macropterous male 0.74–*0.75*–0.75, brachypterous male 0.90–*0.91*–0.92, brachypterous female 0.60 mm (measurements based on the Antillean specimens only).

Colour dark brown to black, anterior part of pronotum reddish brown, a median longitudinal silvery line bordered with black over nearly the whole length of pronotum. Venter lighter brownish, pronotum with a silvery stripe laterally.

Head with length of anteocular part 2.60–*2.86*–3.10, postocular part 1.00–*1.08*–1.16 mm. Interocular groove dorsally most often very faintly indicated but in some, especially brachypterous, specimens distinct though shallow.

Length of antennal segments male I = 0.60–*0.67*–0.70, II = 1,25 –*1.37*–1.42, III = 4.40–*4.60*–4.80, IV = 1.90–*1.95*–2.00; female I = 0.62–*0.67*–0.70, II = 1.30–*1.38*–1.46, III = 4.20–*4.40*–4.53, IV = 1.90–*1.97*–2.00 mm.

Clypeus (Fig. 181) with only a faint blunt projection medially on anterior margin. Male processes of abdomen thickly beset with bristles, more or less U-shaped, situated about midway on the 6th abdominal segment. Apex of abdomen male Fig. 178–179, female Fig. 180.

This species is very similar to *H. guianana*, there are differences in the shape of the clypeus and the position and form of the male

abdominal processes. The apex of the female abdomen can be very similar in these species.

Hydrometra comata Torre-Bueno, 1926

Hydrometra comata TORRE-BUENO, 1926, p. 114–115 (Trinidad).
Hydrometra comata; HUNGERFORD & EVANS, 1934, p. 90 (key).
Hydrometra comata; DRAKE & LAUCK, 1959, p. 51 (checklist).

TRINIDAD; SURINAME!, Suriname.

SURINAME: Suriname Rivier, Kabelstation, Makambi Creek, *P. 1057*, 19.V. 1961, 2 ♂, 1 ♀ macropterous, 3 ♀ brach. (P. H. van Doesburg Jr., L).

Length, male 11.40; female 12.0–*12.40*–12.80; pronotal humeral width male 0.61–*0.63*–0.65, brachypterous female 0.54–*0.55*–0.57, macropterous female 0.70. Measurements in mm, all available specimens measured. Colour, reddish brown, head and venter darker. Pronotum with a narrow silvery median longitudinal line bordered with black on posterior 2/3. Terga of abdomen blackish. Pronotum and abdomen with a silvery lateral stripe.

Head with length of anteocular part 1.95–*2.07*–2.15, postocular part 0.98–*1.04*–1.07 mm. Interocular groove dorsally only very faintly indicated. Clypeus excavated anteriorly (Fig. 183). Length of antennal segments male I = 0.70–0.72, II = 1.10–1.20, III = 3.30, IV = 1.75–1.90; female I = 0.80–*0.81*–0.82, II = 1.10–*1.11*–1.12, III = 3.00–*3.10*–3.20, IV = 1.80–*1.83*–1.90 mm. Pronotum not pitted, apex of abdomen of male Fig. 182.

This species is very similar to *H. guianana* Hungf. & Evans, however, the excavate clypeus separates this species from all *Hydrometra* known from the Western Hemisphere.

Hydrometra guianana Hungerford & Evans, 1934

Hydrometra guianana HUNGERFORD & EVANS, 1934, p. 94–97, pl. 10 (Guyana).
Hydrometra guianana; DRAKE & MALDONADO CAPRILES 1952, p. 47 (Venezuela, Perú).
Hydrometra guianana; DRAKE & LAUCK, 1959, p. 51 (checklist).

VENEZUELA, Amazonas; GUYANA; SURINAME!, Suriname; BRASIL!, Amazonas, Pará, Mato Grosso; PERÚ.

SURINAME: Lemmetje Kondre, Sarakreek, small pool near railroad, 17.XII. 1963, 4 ♂, 3 ♀ macr., 1 ♀ brach. (D. C. Geijskes, L); Suriname Rivier, near Kabelstation, Makambi Creek, *P. 1057*, 19.V.1961, 1 ♂ macr. (P. H. v. Doesburg Jr., L).
BRASIL: Amazonas, near Manaus, Km 77–78. *A. 443–a*, 14.XII.1962, 2 ♂, 1 ♀ macr., 2 ♂, 2 ♀ brach.; Rio Negro, near Tapuruquara, *A. 511–1*, 6.II.1963, 1 ♀ brach. (E. J. Fittkau, A). Pará, Rio Parú do Ceste, small pool, *Sa. 845*, 9.I.1961, 1 ♀ brach. (W. Sattler, A). Mato Grosso, Sra. do Roncador, Igarapé near Acampamento y Km 80, *A. 558–2*, 1 ♀ macr., 2 larvae; source-region of Rio Xingo, Lago Garapú, *A. 566–1*, 26.VII.1965, 2 ♀ macr. (Fittkau, A).

Length, male 14.3–*14.5*–14.9 (n = 6), female 15.0–*16.7*–18.4 (n = 5) mm. Pronotal humeral width of macropterous male 0.70–*0.74*–0.75 (n = 5), brachypterous male 0.55; macropterous female 0.80–*0.83*–0.85 (n = 2), brachypterous female 0.60–*0.65*–0.70 (n = 2) mm. Brachypterous specimens are on the average somewhat longer than macropterous specimens.

Colour, reddish brown, head dark, pronotum with a thin silvery median line bordered with black on posterior 3/5, apex of abdomen darker. Venter dark, most specimens with a silvery lateral stripe on thorax and abdomen. Head with length of anteocular part 3.0–*3.1*–3.3 (males), 3.3–*3.5*–3.9 (females); postocular part 1.15–*1.18*–1.20 (males), 1.22–*1.30*–1.45 (females) mm. Interocular groove dorsally only faintly indicated, clypeus antero-median with a short angular projection (Fig. 16). Length of antennal segments male, I = 0.70–*0.70*–0.72, II = 1.40–*1.49*–1.65, III = 6.0–*6.1*–6.2, IV = 2.35–*2.42*–2.50; female I = 0.70–*0.75*–0.80, II = 1.60–*1.64*–1.70, III = 6.0–*6.5*–7.0, IV = 2.30–*2.33*–2.35 mm.

Pronotum distinctly pitted, pitting of acetabula Fig. 188.

Male process on 6th abdominal segment (Fig. 184), beset with bristles, more or less U-shaped, confined to posterior half of segment. Apex of abdomen male, Fig. 184–185, female Fig. 186. In macropterous specimens the hemielytra reach from apex of 4th tergite to halfway along 5th.

Hydrometra australis Say, 1832

Hydrometra australis SAY, 1832, p. 35 (Louisiana).
Hydrometra myrae TORRE-BUENO, 1926, p. 110–111 (Georgia).
Hydrometra myrae; HUNGERFORD & EVANS, 1934, p. 105 (Louisiana, Florida, Cuba, Haiti).
Hydrometra australis; WILSON 1958, p. 125 (Mississippi).
Hydrometra australis; DRAKE & LAUCK 1959, p. 51 (checklist, México, British Honduras).

U.S.A., Georgia, Florida, Mississippi, Louisiana, California; MÉXICO; BRITISH HONDURAS. – CUBA; HISPANIOLA, Haiti; PUERTO RICO!.

U.S.A.: Florida, Everglades National Park, fresh water ditch, 6.IX.1963, 1 ♀ (P. Wagenaar Hummelinck, U).
PUERTO RICO: Laguna Cartagena, Valle de Lajas, *Sta. 705*, 18.IX.1963, 2 ♂, 1 ♀ (Hummelinck, U). All specimens brachypterous.

Length, male 8.8–9.2, female 9.0–10.3 mm.

Colour yellowish brown. Head with length of anteocular part 1.60–1.80, postocular part 0.70–0.80 mm. Clypeus conical. Length of antennal segments I = 0.28–0.30, II = 0.58–0.61, III = 1.60–1.91, IV = 0.90–1.11 mm. Fore and middle acetabula with four pits. Apex of male abdomen Fig. 189.

This species is very similar to *H. martini* Kirk., which, however, is somewhat stouter and generally has only two pits on fore and middle acetabula.

REFERENCES

BERG, C., 1879. *Hemiptera Argentina*: 18–316.

DRAKE, C. J., 1953. Synonymical data and description of a new Hydrometra (Hemiptera: Hydrometridae). *J. Kansas Ent. Soc. 26*: 40–41.

DRAKE, C. J., 1954. Synonymical data: descriptions of new Hydrometridae (Hemiptera). *Great Basin Natl. 14*: 61–66.

DRAKE, C. J., 1956. New Neotropical Hydrometridae (Hemiptera). *Proc. Biol. Soc. Washt. 69*: 153–156.

DRAKE, C. J. & LAUCK, 1959. Descriptions, synonymy, and checklist of American Hydrometridae. *Great Basin Natl. 19*: 43–52.

DRAKE, C. J. & MALDONADO CAPRILES, J., 1952. Water-striders from Territorio Amazonas of Venezuela. *Great Basin Natl. 12*: 47–54.

ESAKI, T., 1927. An interesting new genus and species of Hydrometridae (Hem.) from South America. *Entomologist 60*: 181–184.

GUÉRIN-MÉNEVILLE, F. E., 1857. Animaux articulés a pieds articulés; in: DE LA SAGRA, *Histoire physique, politique et naturelle de l'île de Cuba.* Paris. [Hydrometra, p. 413–414]

HUNGERFORD, H. B., 1935. The genus Bacillometra Esaki, including the description of a new species from Peru (Hemiptera, Hydrometridae). *Rev. Ent. 5*: 117–123.

HUNGERFORD, H. B., & EVANS, N. E., 1934. The Hydrometridae of the Hungarian National Museum and other studies in the family (Hemiptera). *Ann. Hist. Nat. Mus. Nat. Hung. 28*: 31–112.

HUSSEY, R. F., 1925. A new Hydrometrid genus from Honduras. *Bull. Brookl. Ent. Soc. 20*: 115–118.

JACZEWSKI, T., 1928. Hydrometridae from the State of Paraná. *Ann. Mus. Zool. Polon. 7*: 81–84, pl. 5.

KIRKALDY, G. W., 1900. Recent notes on Hydrometra martini Kirk. = lineata Say. *Entomologist 33*: 175–176.

KIRKALDY, G. W., 1902. Miscellania Rhynchotalia 5. *Entomologist 35*: 280–284.

REED, E. C., 1901. Sinópsis de los Hemípteros de Chile. *Rev. Chilena Hist. Nat. 2/5*, (reprint, 107 pp.).

SAY, T., 1832. *Descriptions of new species of Heteropterous Hemiptera of North America.* New Harmony, Ind., 39 pp.

SPRAGUE, I. B., 1956. The biology and morphology of Hydrometra martini Kirkaldy. *Univ. Kansas Sci. Bull. 38*: 579–693.

TORRE-BUENO, J. R. DE LA, 1926. The family Hydrometridae in the Western Hemisphere. *Entom. Americ. (n.s.) 7*: 83–128.

WHITE, F. B., 1879. List of the Hemiptera collected in the Amazons by Prof. Trail in 1873–1875, with descriptions of the new species. *Trans. Ent. Soc. London 4*: 267–276.

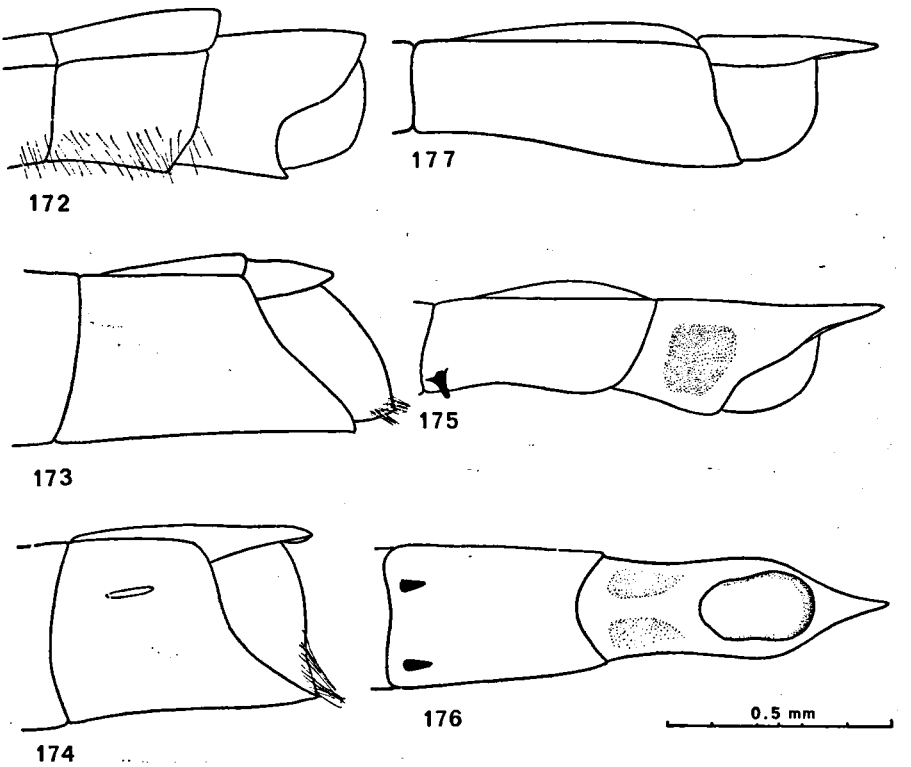

Fig. 172–173. *Bacillometra fuallagana* from Perú, apex of abdomen in lateral view: 172, male; 173, female.

Fig. 174. *Bacillometra ventralis* from Amazonas, apex of female abdomen in lateral view.

Fig. 175–177. *Hydrometra argentina* from Amazonas, apex of abdomen: 175, male, lateral view; 176, male, ventral view; 177, female, lateral view.

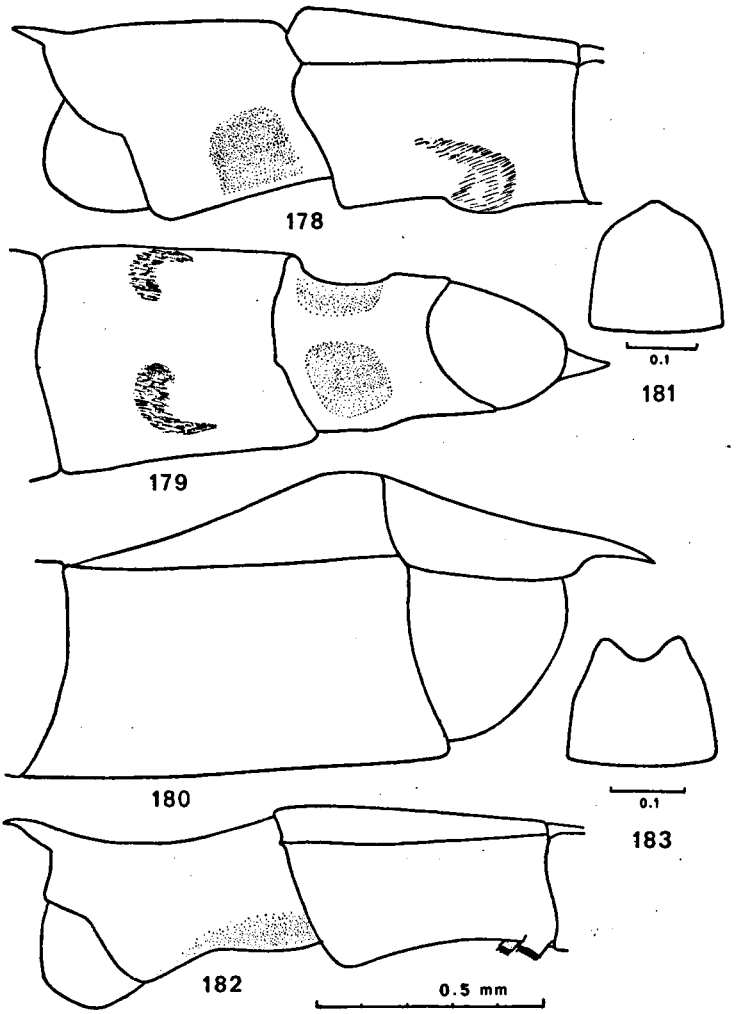

Fig. 178–181. *Hydrometra caraiba* from Martinique: 178, apex of male abdomen in lateral view; 179, apex of male abdomen in ventral view; 180, apex of female abdomen in lateral view; 181, clypeus of female.
Fig. 182–183. *Hydrometra comata* from Suriname: 182, apex of male abdomen in lateral view; 183, clypeus of male.

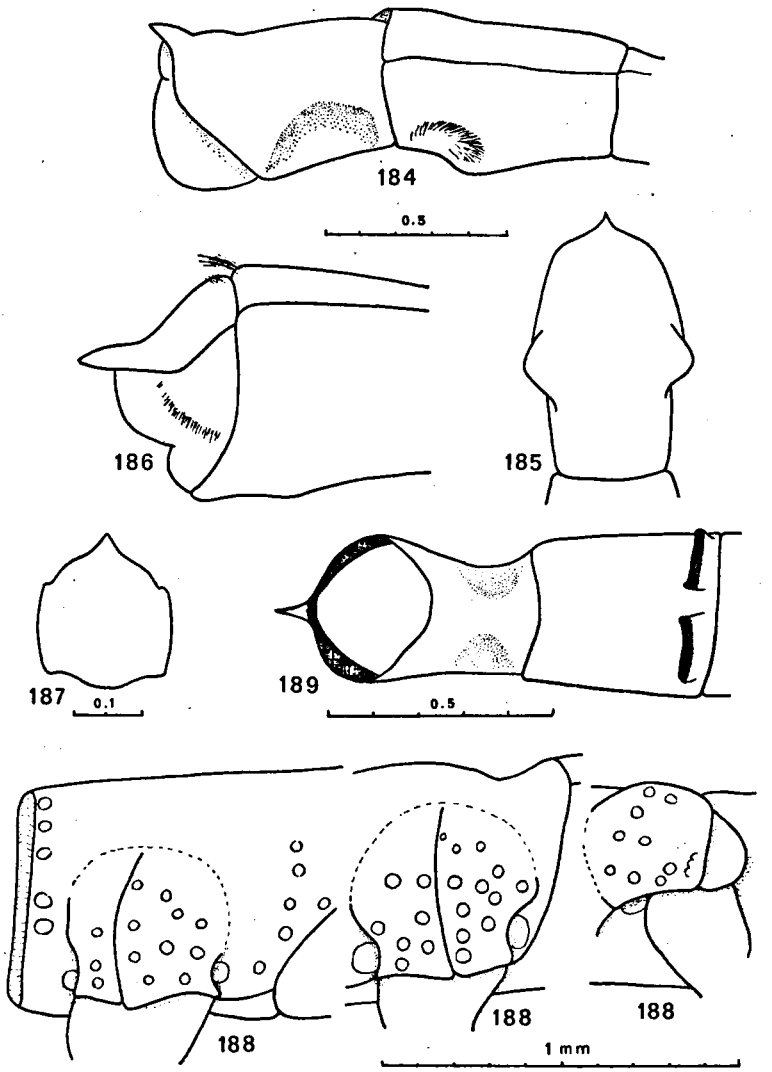

Fig. 184–188. *Hydrometra guianana* from Suriname: 184, apex of male abdomen, lateral view; 185, apex of male abdomen, dorsal view; 186, apex of female abdomen, lateral view; 187, clypeus of female; 188, acetabula of male.
Fig. 189. *Hydrometra australis* from Puerto Rico, apex of male abdomen in ventral view.