

# NEW NEOTROPICAL HYDROMETRIDAE (HEMIPTERA)

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This paper contains the description of five new species of the genus *Hydrometra* LATREILLE from the Americas. The types are in the collection of the author.

## *Hydrometra barrana*, sp. new

**Macropterous form:** Elongate, moderately stout, dark brown, black beneath. Female a little stouter than male. All acetabula without pits; hind lobe of pronotum with numerous very large, shallow pits.

Length: Male, 11.00 mm.; female, 12.00 mm.

**Head:** Length, 3.00 mm. Anteocular part twice as long as postocular (80 : 40). Clypeus extremely wide, subequal in length and width, deeply broadly impressed medially on apical two-thirds, fuscous-brown, smooth. Interocular groove above shallow, groove beneath deeper, wider, each about as long as an eye. Rostrum very long, reaching considerably beyond middle of postocular part (when pressed flat against underside of head). Head black beneath, with a few scattered long hairs.

**Pronotum:** Pronotum brown, sometimes partly fuscous; fore lobe narrower than hind lobe, impunctate save for encircling row of very small pits just behind narrow collar; hind lobe wider, more elevated, with the median line somewhat frosted; humeral angles feebly raised. Propleura with two rows of small pits behind acetabula (usually not visible when surface is dry). Pits of hind lobe numerous, very shallow, very large, visible when surface is dry or moistened. Length of entire pronotum, 1.75 mm. Acetabula smooth, deep brown, without visible pits when surface is dry or wet. Legs fuscous-brown, the coxae and trochanters pale testaceous with fuscous areas; fore femora and tibiae of their respective legs almost equal in length; fore femora scarcely reaching apex of clypeus; apex of hind femora surpassing apex of genital segments.

Abdomen: Length, 5.75 mm. Brown to reddish brown; connexiva yellowish brown with outer margin dark fuscous. Venter dark fuscous with a little whitish lustre on sides, beset with a few scattered long hairs. Hemelytra dark brown with veins dark fuscous; reaching a little beyond base of antepenultimate segment of abdomen.

*Apterous form*: Wing pads straplike with veins raised and dark fuscous, reaching on base of abdomen. Pronotum longly constricted near the middle so as to divide it into two nearly equal lobes; front lobe impunctate, save for encircling row of pits near and paralleling front margin; hind lobe with a median frosted line, dark fuscous on each side of line; numerous large shallow pits visible, more plainly discernible when surface of lobe is moistened. Tergites (save last segment) reddish fuscous shining. Propleura with several small pits. All acetabula without pits.

Female: Last abdominal tergite gradually raised apically; first genital segment dorsally gradually declivent to apex, there terminating in a dark spine.

Male: Last venter shorter than preceding segment, broadly longly impressed behind each process. Male processes (one on each side of venter) very stout, cone-like, dark, densely clothed with short bristles on top, situated at base of segment; each stout cone slightly tilted posteriorly-outwardly. First genital segment beneath broadly transversely impressed basally, without median ridge, terminating posteriorly above in a sharp, turned-up spine.

*Type* (long-winged male), *allotype* (long-winged female) and one *paratype* (male), Barro Colorado, Panama, Canal Zone, Panama, Feb. 6—10, 1939, C. J. Drake. *Paratypes* (two short-winged females). Gatun Lake, Panama, Nov. 8, 1931, Tres Rice Plantation, Nov. 8, 1931, T. O. Zsoho.

Closely related to *H. comata* BUENO, but readily separated from it by the very large shallow pits on hind lobe of pronotum. Both species have very wide clypeus. The male processes are similarly situated, but they are too poorly described in *H. comata* BUENO to permit comparison with *H. barrana*, n. sp.

#### *Hydrometra zeteki*, sp. new

Elongate, slender, moderately large, brown with head largely blackish, the hind lobe of pronotum flavous.

Length, 12.00—14.00 mm.

Head: Length, 3.80 mm. Antecocular part more than twice as long as postocular (21—54 in male; 22—58 in female). Interocular groove above short, shallow, not as long as an eye; groove beneath deep, wide, not extending beyond front and hind margins of eyes. Rostrum scarcely attaining hind margins of eyes when pressed flat against the ventral surface of head. Antennae deep brown, smooth, the distal part of third and fourth segments shortly pilose; basal segment dark fuscous, pale basally; formula — I, 21; II, 50; III, 215; IV, 80.

Pronotum: Length, 2.00 mm. Median longitudinal line profound,

present on both lobes, wider on hind lobe; anterior lobe with an encircling row of very large pits just behind narrow collar otherwise impunctate; hind lobe with many large pits, a row of smaller pits in median line, surface darkened on each side of frosted line. Propleura with three rows of pits back of acetabula. Acetabula brownish, all with numerous large pits; anterior acetabula with 8 or 9 pits in front of cleft and 10 to 12 pits back of it; middle acetabula with about the same number of pits on each side of cleft; posterior acetabula with 8—12 pits. Acetabular, propleural and pronotal pits large, about equal in size.

Legs: Deep brown with faint reddish tinge, tips of all femora dark fuscous. Fore femora, 3.75 mm. long, attaining apex of clypeus; hind femora 5.75 mm. long, surpassing apex of genital segment by about one-tenth of their length.

Abdomen: Length, 6.75 mm. Brown, somewhat whitish or frosty beneath in bright light; connexiva yellowish brown with outer margin narrowly dark fuscous. Hemelytra extending on penultimate segment. Venter with a few scattered long hairs with a frost stripe on each side.

Female: Last segment beneath shorter than preceding, longest on median line, obliquely (feebly concave) narrowed on each side dorsally. Genital segment terminating dorsally in a short straight dark spine.

Male: Last segment of venter two-thirds as long as preceding segment; genital processes (one on each side of venter, located at middle of segment) composed of two dense, thick, crescent-shaped tufts of brown bristly hairs; each tuft about three and one-half times as long as wide, directed obliquely posteriorly so that the outer end of crescent is a little nearer the hind margin of segment than the outer end; space between tufts about as wide as the width of one tuft; first genital segment deeply broadly impressed on each side so as to leave a narrow median ridge beneath, with a small round tuft of short bristly hairs on each side just behind the impression, terminating posteriorly in a short straight spine.

*Type* (male), *allotype* (female) and many *paratypes*, Canal Zone Panama, Feb. 2—10, 1939, C. J. Drake. Two paratypes also in the collection of the National Museum in Praha.

This species may be separated from *H. caraiba* GUERIN by its smaller size, position and type of genital brushes in male, and much larger pronotal and acetabular pits. *H. zeteki* occurs near the shore in quiet sluggish waters of streams and secluded coves of ponds and lakes. It was by far the most abundant of the six species of hydrometrids taken by the author in the Canal Zone of Panama.

#### *Hydrometra acapulcana*, sp. new

*Macropterous form*: Large, elongate, moderately stout, dark fuscous with hind lobe of pronotum luteous; head mostly blackish; body beneath brown to dark fuscous; pronotum with a profound, longitudinal, frosted line, which is wider on hind lobe, black-fuscous on each side of line.

Length: 14.50—15.10 mm. (male); 14.90—15.30 mm. (female).

Head: Length, 4.80 mm. Antecular part three times as long as postocular (21—65). Clypeus moderately large, black-fuscous, smooth,

slightly longer than wide, the apical margin rounded. Interocular groove above distinct, shallow, not as long as an eye; groove beneath deep, wide, not extending beyond front or hind margins of eyes. Antennae blackish fuscous, the apical part of third and fourth segments shortly pilose; formula — I, 28; II, 66; III, 200; IV, 90.

**Pronotum:** Length, 2.50 mm. Front lobe deep brown, with encircling row of very large pits just behind narrow collar, otherwise impunctate; hind lobe broader, not quite twice as long as fore lobe, coarsely pitted, with row of pits in median line, and many pits on the sides. Propleura with two or three rows of large pits back of the acetabula. All acetabula with numerous large pits; fore and middle acetabula each with around 18 to 24 pits (varying from 8 to 14 pits on each side of cleft). Hind acetabula with 10 to 12 large pits. Pits of propleura, acetabula and hind lobe of pronotum practically equal in size. Distance between fore and middle acetabula more than half the length of space between middle and hind acetabula (52 : 90).

**Legs:** Dark brown to fuscous with femoral tips blackish, beneath testaceous. Length of fore femora, 4.75 mm.; hind femora, 5.39 mm. Tips of fore femora slightly passing apex of clypeus; hind femora surpassing, apex of genital segment by about one-eighth their length.

**Abdomen:** Length 5.50 to 5.70 mm. Hemelytra dark fuscous with veins blackish, extending to near apex of antepenultimate segment. Connexiva testaceous on both sides with outer margin dark fuscous. Abdomen beneath dark brown to dark fuscous with a broad testaceous stripe on each side frosty white.

**Brachypterous:** Wing pads straplike, dark fuscous, extending to second tergite. Pronotum narrower than in long-winged form, longly constricted behind front lobe, front lobe nearly one-half of length of hind lobe, the latter with very many large pits as in macropterous form.

**Female:** Last tergite gradually distinctly elevated posteriorly, without long hairs apically, shorter than preceding segment; genital segment without basal tufts of long hairs, distinctly curving downwards posteriorly, terminating at apex in short spine with its tip curved downwards.

**Male:** Last venter about two-thirds as long as preceding segment, deeply broadly impressed behind each of the bushlike processes, with the space between the process about half the width of a brush; each crescent-shaped brush situated within the basal two-fifths of the length of the segment with the convex hind margin at middle one-sixth of the length of the segment from base of segment; inner end of brush not quite as far produced posteriorly as outer end. Each brush composed of moderately deep, dense, rather long, bristly-brown hairs, the convex base of which is practically lined up with base of segment, its outer part feebly pushed posteriorly. Entire venter almost without long hairs. First genital segment without long hairs, broadly but not deeply impressed on each side, without sharp median ridge beneath, terminating above apically in a short feebly turned-up spine.

*Type* (male), *allotype* (female) and 4 *paratypes*, taken in a brackish lake near Acapulco, Mex., July 23, 1950, C. J. Drake.

This species may be separated from *H. caraiba* GUERIN of Cuba by the position of the lunate bristly processes of the male. The pits are also more numerous on hind lobe of pronotum.

***Hydrometra panamensis*, sp. new**

*Winged form*: Moderately long brown, the underside of head and thorax dark fuscous or blackish. Each side of pronotum and thorax with a broad whitish or frosted stripe.

Length (male), 12.00 mm.

Head: Antecular part more than twice as long as postocular (40—98). Total length, 3.75 mm. Rostrum brownish, nearly attaining hind margins of the eyes. Interocular groove above very shallow; groove beneath deep, wide, not surpassing margins of eyes. Antennae brown, smooth, apical part of third and fourth segments shortly pilose; formula — I, 21; II, 45; III, 160; IV, 78. Clypeus moderately large, brown-fuscous, polished, subequal in length and width, almost quadrate with front margin broadly rounded.

Pronotum: Length, 2.00 mm. Anterior lobe deep brown, without median line, impunctate, excepting encircling row of very large pits at base of narrow collar; hind lobe flavous brown, with median longitudinal frosted line, row of pits in median line, with many large pits on both sides of lobe. Propleura with two rows of large pits behind acetabula. All acetabula pitted with numerous large pits; anterior and middle acetabula with 18 to 20 pits (8—11 pits in front of each cleft and 9—11 behind cleft), hind acetabula with 10—13 pits. Pronotal and acetabular pits practically equal in size, the encircling row of pits on fore lobe of pronotum slightly larger.

Legs: Legs testaceous, indistinctly pilose. Front femora not quite reaching apex of clypeus; hind femora slightly surpassing genital segments. Length of anterior femora, 3.40 mm.; posterior femora, 4.90 mm.

Abdomen: General color brown, beneath darker with a few scattered long hairs. Hemelytra dark fuscous with veins darker, extending to middle of penultimate segment.

Male: Last ventral segment shorter than the penultimate; genital processes (one on each side, situated a little behind the base of segment) composed of thin, short, bristly, brown hairs arranged in a crescent-shaped brush on the basal third of the segment; ends of brush almost an equidistance from the base or apex of segment; center of convex hind margin of brush about one-sixth of the length of the segment from its base; distance or space between the inner ends of brush nearly equal to the diameter of the quarter moon-shaped brush; crescent-shaped brush lined up with the base of segment with the outer part feebly pushed backwards. First genital segment beneath almost as long as last venter, feebly impressed on the side, without a ventral ridge, without a small clump of bristly hairs on each side back of shallow impression, terminating dorsally at apex in a short, blunt, slightly upwardly directed spine.

*Type* (male) and one *paratype* (male), Canal Zone, Panama, Feb. 10 1939, C. J. Drake.

This species may be distinguished from *H. zeteki* n. sp. by having the genital brushes placed on the basal third of last venter of the male. It is much smaller than *H. caraiba* GUERIN with the male brushes on last venter nearer the base and the outer part of crescent not shifted so much posteriorly. The shorter head, especially anteocular part, and position of male brushes also distinguish it from *H. acapulcana* n. sp.

***Hydrometra brasilana*, sp. new**

*Brachypterous form*: Rather large, elongate, black with hind lobe of pronotum brownish fuscous. Hemelytra brown with veins raised and dark fuscous.

Length: 12.00—13.25 mm.

Head: Length, 3.52 mm. Clypeus large, smooth, blackish fuscous, a little longer than wide, broadly rounded apically. Interocular groove above shallow; groove beneath slightly larger, neither longer than an eye. Anteocular part of head twice as long as postocular (84 : 42). Rostrum testaceous or brownish testaceous, becoming darker apically, reaching around middle of postocular part of head. Antennae black-fuscous, the apical part of third and fourth segments dark fuscous; formula — I, 28; II, 38; III, 120; IV, 68.

Pronotum: Length, 4.60 mm. Longly deeply constricted behind front lobe; anterior lobe impunctate, excepting the encircling row of rather large pits near front margin; hind lobe not quite twice as long as fore lobe, with median pitted line scarcely or not at all frosted, the numerous pits on each side of median line not arranged in regular rows. Propleura with numerous pits arranged in three rows. All acetabula deeply pitted with numerous pits; fore acetabula with 14 to 16 pits (6 or 7 in front of cleft and 8 to 10 behind it); middle acetabula with 14 to 18 pits (5 to 8 in front of cleft and 8 to 10 behind it); hind acetabula with 9 to 12 pits. Acetabular, propleural and protonal pits large, deep, all about equal in diameter with white bottoms. Distance between middle and hind acetabula longer than that between middle and fore acetabula (56 : 72).

Abdomen: Length, 5.40 mm. Beneath black, sparsely beset with short hairs. Connexiva testaceous-brown on both sides (narrow on outside) with extero-margin dark fuscous. Tergite blackish ferrugineous, smooth, shining, excepting last one, which is blackish and roughened with short dark spicules. Abdomen and thorax beneath with some whitish lustre, with a stripe of frosty white on each side just below connexiva. Wing pads extending slightly beyond hind acetabula.

*Macropterous form*: Length of pronotum, 4.75 mm. Hind lobe of pronotum nearly twice as long as front lobe, with more large pits in short-winged form. Humeri feebly elevated. Hemelytra brown with veins dark fuscous, extending on penultimate segment.

Legs: Dark fuscous with tips of femora blackish; coxae and trochanters largely flavo-testaceous; femora beneath pale brown or testaceous. Length of front femora, 3.60 mm.; hind femora, 5.00 mm. Tip of fore femora scarcely attaining apex of clypeus; hind femora hardly attaining tip of genital segments.

**Female:** Stouter and longer than male. Last tergite of abdomen slowly raised apically, without tufts or clumps of long hairs behind; first genital segment declivent posteriorly, ending apically in a short, stout, feebly turned-down spine.

**Male:** Abdomen beneath and entire connexiva black, lateral whitish lustre stripe present, also a brighter whitish spot in stripe near base of each segment. Last venter without impressed or smooth areas behind processes, with surface roughened as on other segments, shorter than preceding segment. Genital processes (one on each side of venter) large, placed on feebly raised areas, situated just behind middle of segment, each mammosc process large, round, widely separated, short, densely beset with short, dark, bristly hairs on top end. First genital segment beneath moderately impressed on each side; above appearing cylindrical in outline, clothed with rather long pale hairs, terminating at apex in a short, slightly turned-up, inconspicuous spine (more plainly visible from lateral aspect).

*Type* (male), *allotype* (female), and 4 *paratypes* (one paratype long-winged), Nova Teutonia, St. Catarina, Brasil, May 4, 1950, Fritz Plau-mann.

Apparently most closely allied to *H. fruhstorferi* HUNGERFORD and EVANS, but separated from it by its black color, shorter anteocular part of head, and more densely pitted acetabula.