A NEW SPECIES OF *HYDROMETRA* FROM THE SEYCHELLES (HETEROPTERA: HYDROMETRIDAE)

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ABSTRACT. *Hydrometra seychellensis* n. sp. is described from Mahé, Seychelles Islands and compared to *Hydrometra mameti* Hungerford from Mauritius and *Hydrometra bifurcata* Hungerford & Evans from Madagascar. Illustrations are provided of the head and abdominal structures.

INTRODUCTION

The genus *Hydrometra* was previously reported from the granitic Seychelles by Distant (1909), who recorded *H. ambulator* Stål from Mahé. Although we have not seen the specimens on which this record was based, we suspect that they in are fact referable to *H. seychellensis*, a new species described herein.

All the *Hydrometra* species now known from the Indian Ocean islands appear to be members of a single monophyletic clade. Hungerford (1951) noted that his *H. mameti* from Mauritius was closely related to *Hydrometra bifurcata* Hungerford & Evans from Madagascar, and *H. sechellensis* n.sp. is also allied to this latter species. In particular, *H. seychellensis* and *H. bifurcata*, have the anterolateral angles of the anteclypeus produced into spine like processes, although in a long series of *bifurcata* collected by the authors this character is seen to vary infraspecifically, being more strongly expressed in certain individuals than others.

All measurements in the following description are given in mm. The holotype of *H. seychellensis* is deposited in the National Museum of National History, Smith-sonian Institution, Washington, D. C. (USNM); paratypes are held in the J. T. Polhemus collection, Englewood, Colorado (JTPC), and the Hope Entomological Collection, Oxford University Museum, Oxford (OXUM).

Hydrometra seychellensis Polhemus & Polhemus **new species** Figs. 1–5

Description

BRACHYPTEROUS MALE. Length 9.47–9.63, width 0.51.

Color. Ground color brown; abdominal tergites brown, shining, VII laterally clothed with fine pubescence except for median basal shining area, VIII mat and clothed with fine pubescence plus longer lateral setae. Head tinged with blackish antero-dorsally, slightly lighter basally and anterad of eyes, blackish ventrally, yellowish beneath anterior margin, very lightly frosted ventrally and on narrow median longitudinal yellow brown stripe dorsally behind eyes. Thorax dorsally with weak bro-

ken narrow median longitudinal frosted stripe, pronotum laterally with an arched frosted longitudinal stripe, pleura mostly frosted, abdomen with frosted spots laterally just below connexival margin and elongate frosted spots on inner connexiva caudad of each segmental suture, segment VIII frosted, visible in oblique light. Pronotum dorsally and ventrally, portions of pleura, abdominal sternites VI–VII, light brown. Legs, light brown to brown, darker distally except posterior femur lighter distally, antennae brown to piceous, lighter distally; coxae, trochanters mostly light brown, similar to bases of femora.

Structure. Head relatively short (2.92), widest at antennal tubercles (0.41); set with scattered short bristly setae beneath; ventral lobe large, rounded (fig. 1); rostrum reaching well caudad of eyes, 2/3 toward pronotum; ratio anteocular/ postocular portions: 1.84/0.82; interocular space/width of an eye: 0.10/0.15; clypeus broadly notched anteriorly, lateral angles produced (fig. 2). Antennal formula I:II:III:IV; 0.56 : 1.18 : 3.69 : 1.84. Prothorax with widely spaced encircling pits on anterior lobe (5 dorsally), posterior lobe with distinct pits including on midline, dorsal pits organized into three parallel rows. Pronotum length 1.38; remainder of thorax 1.38; abdomen length 3.18. Abdomen slightly curved upward, recurved to about horizontal on segments VII–VIII. Hemelytra light brown medially between veins, reaching middle of tergite III. Thoracic, abdominal sternites with short to medium length scattered setae, densest on abdominal sternites II–IV. Distance between anterior and middle coxae (measured between closest margins) 0.36; between middle and hind coxae 1.13. Anterior and middle acetabulae with 2 pits each on anterior and posterior parts, posterior acetabula with a pit dorsally. Entire venter set with minute black denticles.

Proportions of legs as follows: femur, tibia, tarsal I, tarsal II, tarsal III of foreleg, 3.12: 3.79: 0.07: 0.31: 0.20; of middle-leg, 3.69: 4.25: 0.10: 0.61: 0.26; of hind-leg, 4.31: 5.63: 0.07: 0.41: 0.26.

Abdominal terminalia as shown in figures 3 and 4. Male sternite VII with 2 (1+1) spine-like tufts of densely packed dark setae at middle on either side but far removed from the ventral midline, posterolaterally with 2 (1+1) fringes of posteriorly directed dark setae. Sternite VIII laterally depressed on each side of midline, forming a broad median carina, directed slightly ventrad.

BRACHYPTEROUS FEMALE. Length 10.39, width 0.61. Most structures and coloration as in male, but abdomen broader, deeper, slightly more curved, distal process of tergite VIII prominent, sharp, directed slightly venrtrad. Abdominal tergites dark, narrowly faintly rastrate medially. Abdominal terminalia as shown in figure 5.

MACROPTEROUS FORMS. Not studied.

APTEROUS FORMS. Unknown.

Discussion: *Hydrometra seychellensis* is a sister species to both *Hydrometra mameti* Hungerford from Mauritius and *Hydrometra bifurcata* Hungerford & Evans from Madagascar, and closely resembles them in most features. It differs from *mameti* in having the lateral angles of the anteclypeus produced instead of truncate, a slightly longer head (AO/PO = 1.84/0.82 for *seychellensis*, 1.79/0.82 for *mameti*) without dense setae ventrally on PO, males without numerous long setae on abdominal sternites II and III, and male sternite VIII lacking dense setae medially and not strongly excavate on each side of the broad median carina. It differs from *bifurcata* in having a brown instead of black ground color, smaller body size (9.63 mm versus 12.60 mm), and the spine-like tufts on male sternite VII located at the middle (measured on ventral midline) rather than slightly closer to the posterior margin.

Among the three species under discussion, it is *seychellensis* from Mahé and *bifurcata* from Madagascar that are the most similar structurally. The obvious close relationship between these two species is compatable with geological and zoogeographical hypotheses that position the Seychelles between Madagascar and India during the Mesozoic.

Distribution. Seychelles Islands.

Material examined. Holotype, brachypterous male, SEYCHELLES: Mahé Is., NW coast, Desert River, 19 Feb. 1974, F/Sey 23A, F Starmühlner (USNM). Paratypes. 1 brachypterous male, 1 brachypterous female, same data as holotype (JTPC); 5 macropterous males, 3 macropterous females, 1 brachypterous female, Silhouette Is., Point Machetee, 1 February 1991, G. Floater (OXUM).

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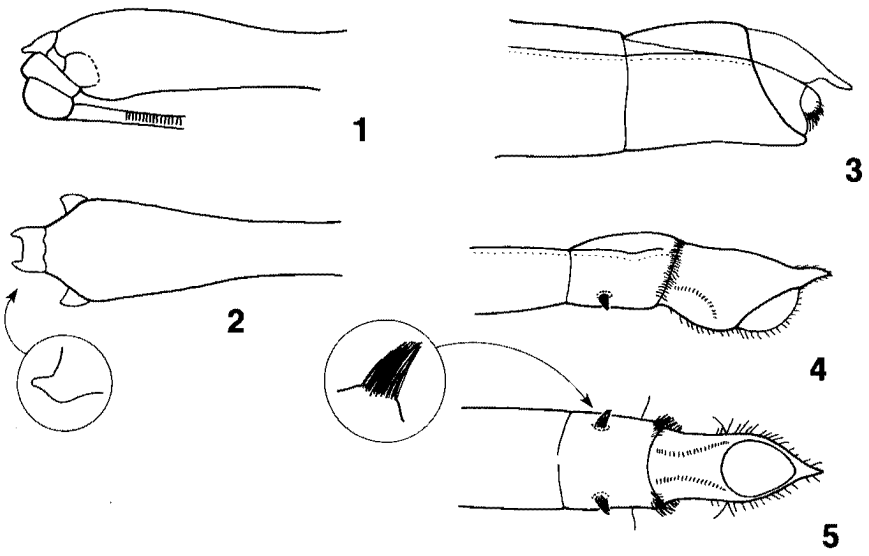

Figs. 1–5. *Hydrometra seychellensis* n. sp. **1.** Apex of head, lateral view. **2.** Apex of head, dorsal view. **3.** Female terminal abdomen, lateral view. **4.** Male terminal abdomen, lateral view. **5.** Male terminal abdomen, ventral view.