

An illustrated key to the Hydrometridae of Thailand

by Herbert Zettel & Ping-ping Chen

Abstract: Nine species of the genus *Hydrometra* LATREILLE are known from Thailand. An illustrated key to these species is provided. The presence of further three species seems possible.

In Thailand the family Hydrometridae is represented by the genus *Hydrometra* LATREILLE only. This genus is easily recognizable by the long, slender head, which is unique among the Gerromorpha of Thailand. Recently ANDERSEN (1992) revised the species of the *H. longicapitis*-group, and POLHEMUS & POLHEMUS (1995) the *Hydrometra* of Indochina and the Western Malay Archipelago. According to this paper (POLHEMUS & POLHEMUS 1995), six species occur in Thailand, two further (*H. carinata*, *H. gilloglyi*) were collected by the authors, and a ninth species (related to *H. julieni*) seems to be undescribed. The presence of a further three species seems probable. The revision of POLHEMUS & POLHEMUS (1995) contains also a key to species, which is based mainly on male characters.

For an identification of the Thai species only, we present an easier key to those species which are known from Thailand (and are present in our collections), and try to offer an identification key to females, too. Mainly by the shape of the anteclypeus, we divide the species of the Southeast Asian mainland into five species groups.

List of species groups and species of Thailand

[Species in brackets not recorded but probably present in Thailand]

Hydrometra longicapitis group:

Hydrometra carinata POLHEMUS & POLHEMUS, 1995

Hydrometra longicapitis TORRE-BUENO, 1927

Hydrometra ripicola ANDERSEN, 1992

Hydrometra julieni group:

Hydrometra gilloglyi POLHEMUS & POLHEMUS, 1995

Hydrometra sp.

[*Hydrometra julieni* HUNGERFORD & EVANS, 1934]

[*Hydrometra papuana* group:]

[*Hydrometra papuana* KIRKALDY, 1901]

Hydrometra lineata group:

Hydrometra annamana HUNGERFORD & EVANS, 1934

Hydrometra greeni KIRKALDY, 1898

Hydrometra maidli HUNGERFORD & EVANS, 1934

Hydrometra orientalis LUNDBLAD, 1933

[*Hydrometra cracens* POLHEMUS & POLHEMUS, 1995]

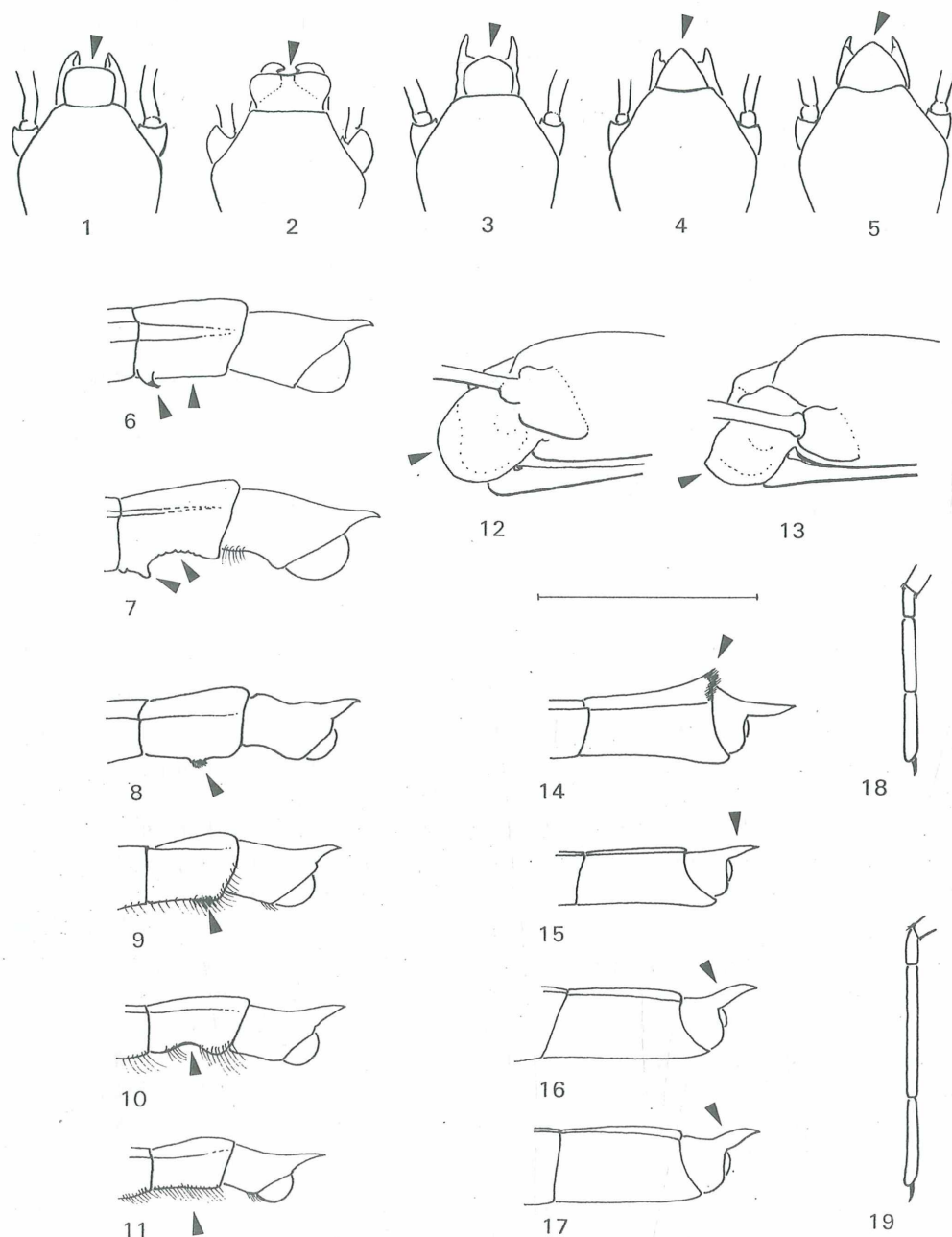
Key to the *Hydrometra* species recorded from Thailand

(partly modified after POLHEMUS & POLHEMUS 1995)

Male: tip of abdomen as in Figs. 6 - 11.

Female: tip of abdomen as in Figs. 14 - 17.

- 1 Anterior margin of anteclypeus truncate or medially concave (Figs. 1, 2), if broadly angulate (Fig. 3), then middle tarsus shorter than one-seventh of length of middle tibia..... 2
Anterior margin of anteclypeus angulate or narrowly rounded (Fig. 4, 5), middle tarsus always longer than one-seventh of length of middle tibia 6
- 2 Anteclypeus shorter than wide, concave in middle of anterior margin, with more or less depressed midline (Fig. 2), middle tarsus longer than one-sixth of length of middle tibia..... 3
Anteclypeus as long as wide, medially truncate or broadly angulate, without depressed midline (Fig. 1, 3), middle tarsus shorter than one-seventh of length of middle tibia 4
- 3 Anteclypeus nearly straight in middle of its anterior margin, with impressed midline only in anterior half, smooth laterally (Fig. 2), process of tergite 8 directed downward *H. gilloglyi*
Anteclypeus deeply concave in middle of its anterior margin, with deeply impressed midline in anterior two-thirds, rugous laterally, process of tergite 8 directed straight backward *H. sp.*
We have a single female which probably represents a new species.
- 4 Body extremely long (males 14.5 mm, females 15.5 mm minimum length), maxillary plates very large (Fig. 12), sternites of female carinate *H. carinata*
Body shorter (males 14.0 mm, females 15.0 mm maximum length), maxillary plates elongate (Fig. 13), sternites of female not carinate 5
- 5 Middle and hind tarsi very short, length of middle tarsus less than one ninth of length of middle tibia, second segment of middle tarsus about 1.2 times as long as third (Fig. 18), sternite 7 of male not impressed and with a pair of small, setiferous tubercles close to its anterior margin (Fig. 6), only micropterous form known (wing rudiments about one-fourth of length of metanotum) *H. ripicola*
Middle and hind tarsi longer, length of middle tarsus more than one-eighth of length of middle tibia, second segment of middle tarsus more than 1.5 times as long as third (Fig. 19), sternite 7 of male impressed and with a pair of large, not setiferous tubercles close to its anterior margin (Fig. 7), brachypterous (wing rudiments about as long as metanotum) and macropterous form known *H. longicapitis*
- 6 Males..... 7
Females..... 10
- 7 Hind femur with a fringe of thin, long, erect hairs, sternite 7 with a cluster of short setae (Figs. 8, 9) 8
Hind femur without long erect hairs, sternite 7 without a cluster of short setae (Figs. 10, 11) 9



Figs. 1 - 5: Anteclypeus of (1) *H. ripicola*, (2) *H. gilloglyi*, (3) *H. longicapitis*, (4) *H. greeni*, (5) *H. maidli*. Figs. 6 - 11: Segments 7 - 9 of males of (6) *H. ripicola*, (7) *H. longicapitis*, (8) *H. annamana*, (9) *H. maidli*, (10) *H. greeni*, (11) *H. orientalis*. Figs. 12 - 13: Tip of head of (12) *H. carinata* and (13) *H. ripicola*. Figs. 14 - 17: Segments 7 - 8 of females of (14) *H. greeni*, (15) *H. orientalis*, (16) *H. annamana*, (17) *H. maidli*. Figs 18 - 19: Middle tarsus of (18) *H. ripicola* and (19) *H. longicapitis*. Scale: 6 - 11, 14 - 17: 1 mm; 1 - 5, 12, 13, 18, 19: 0.625 mm.

- 8 Sternite 7 with a pair of smaller, tightly clustered black setae just behind middle (Fig. 8)..... *H. annamana*
 Sternite 7 with a pair of longer, less tightly clustered brown setae near posterior margin (Fig. 9) *H. maidli*
- 9 Sternite 7 with a broad, transverse sulcus, easily seen in lateral view (Fig. 10) *H. greeni*
 Sternite 7 without this sulcus (Fig. 11) *H. orientalis*
- 10 Hind margin of tergite 7 raised and with longer, black hairs, which are sometimes rubbed off (Fig. 14)..... *H. greeni*
 Hind margin of tergite 7 not raised, without longer hairs (Figs. 15 - 17) 11
- 11 Process of tergite 8 directed upward (Figs. 16, 17), pronotum with three whitish longitudinal lines (middle line and sublateral lines), which are sometimes less distinct 12
 Process of tergite 8 directed straight posteriorly (Fig. 15), pronotum at most with a faint whitish middle line *H. orientalis*
- 12 Process of tergite 8 at least as long as its anterior part (Fig. 16) *H. annamana*
 Process of tergite 8 shorter than its anterior part (Fig. 17)..... *H. maidli*

References

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