

**The Genus *Ptilomera* Amyot & Serville in Thailand, with a New Species from the North (Hemiptera, Gerridae).**

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According to Hungerford & Matsuda (1965) only one species of *Ptilomera* Am. & Serv. has been recorded from Thailand up to the present, *Pt. (s. str.) harpyia* Schmidt. In the following is a second species, here described as new, added together with some taxonomic and distributional notes for *Pt. harpyia* Schmidt.

***Ptilomera (s. str.) hemmingseni* sp. nov. (Figs. 1—5).**

Description of apterous male:

Colour: Quite typical for the genus as described by Hungerford & Matsuda (1965, p. 399—400). Uppersurface predominantly dark yellowish brown, venter light yellowish, covered by a short, silvery pile. The type specimen has more background colour and smaller black markings than most species of the genus. Head with two pairs of small, black dots. Anterior margin of pronotum with a narrow, black spot behind inner margin of each eye; mesothorax with a black spot behind the posterolateral corners of pronotum; pleural areas with a narrow, undulating black band divided into two by a yellow stripe, covered by silvery hairs; a small spot on each acetabulum and the posterior margin of metacetabulum dark brownish. Front femur dark yellowish brown and with two narrow, longitudinal, dark stripes, the outer one the most distinct; middle and hind legs ferruginous, apices of femora a little lighter. Abdominal tergites mostly dark yellowish brown except anterolateral corners, which are dark brownish with a

silvery pubescense; 8th abdominal and the genital segment yellowish brown; apex of the lateral wings of anal cone and claspers blackish and shiny.

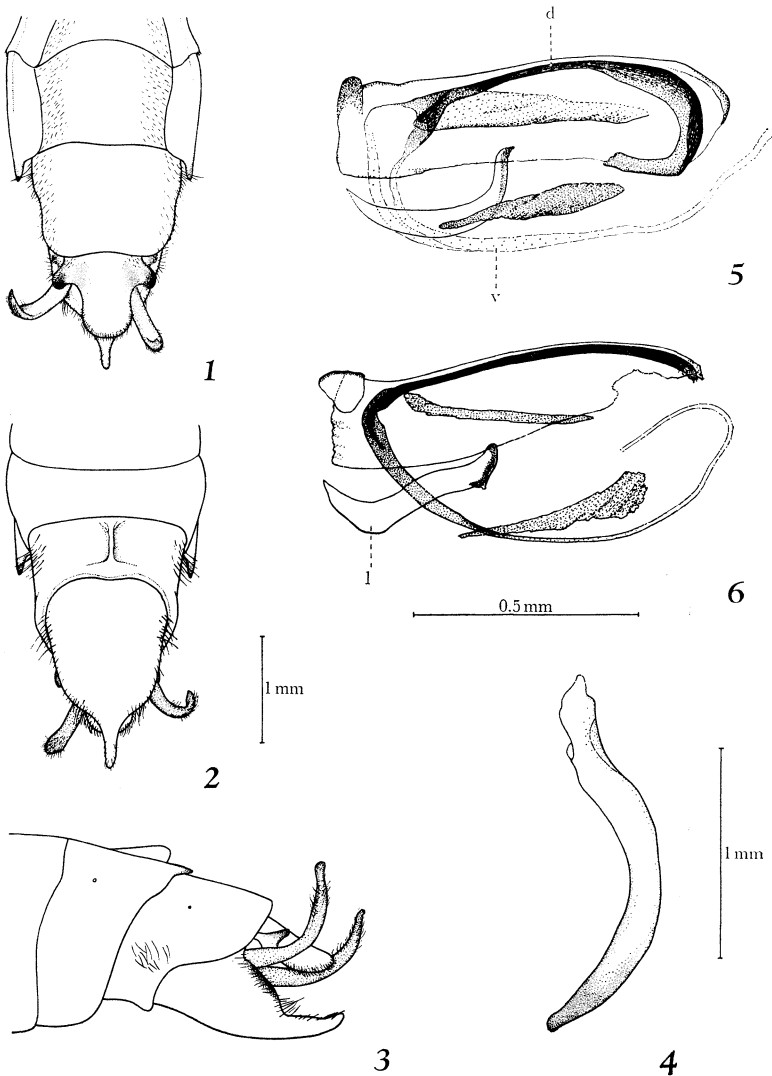
**S t r u c t u r e:** A rather short and broad species. Relative lengths of thorax, 1st—7th tergite, and 8th abdominal + genital segment (dorsal view): 273:163:88.\*)

Front tibia with thick and long pubescense covering whole surface; middle femur with a fringe of hairs on apical half and hind coxa with a posteriorly-directed spine on hind margin; hind coxae reaching approximately to rear margin of 4th abdominal segment. 7th tergite about twice as long as 6th; posterior corners of connexivum with a short, but for this genus, remarkably prominent spine (figs. 1—3); 8th abdominal segment with a prominent median keel ventrally. Genital segment short; anal cone (fig. 1) rather characteristic, narrow and short with very short lateral wings (greatest width of anal cone: head width: 49:81), which are turned obliquely upwards and directed slightly posteriorly; apices hairless and shiny; median part of anal cone longitudinally raised; median lobe long, tongue-shaped, greatly surpassing lateral wings. Pygofer (fig. 2) short, with lateral margins subparallel basally, but with a finger-like caudal tip; the dorsolateral projections of pygofer present only as low elevations on the lateral margins (fig. 3). Claspers (fig. 4) relatively long and simply curved, with a rather short pubescense of hairs on the flattened apical part. Phallus with structure as shown in fig. 5; dorsal plates (d.) clearly separated medially except at base, with apical part prolonged and widened, hook-shaped; other sclerites also quite characteristic; ventral plates (v.) very weakly sclerotized and hardly visible.

**S i z e:** Total length 14.25 mm.; width of head 2.20 mm.; width

	Measurements of the appendages. (Actual lengths in mm.)
Antennal formula (1st:2nd:3rd:4th):	7.25:1.90:?:?
Front leg (femur:tibia:ta.1:ta.2):	8.35:7.25:4.75:1.65
Middle femur:	24.90
Hind femur:	32.70

\*) 1 unit = 0.025 mm.



Figs. 1—5. *Ptilomera (s. str.) hemmingseni* sp. nov., holotype male. — Fig. 1. Apical part of abdomen, dorsal view, most of pubescence omitted. Fig. 2. do., ventral view. Fig. 3 do., lateral view. Fig. 4. Left clasper, hairs omitted. Fig. 5. Apical part of phallus (endosoma), lateral view, surrounded by conjunctiva showing the various sclerites. *d.* dorsal plate, *v.* ventral plate. — Fig. 6. *Ptilomera (s. str.) h. harpyia* Schmidt, from Thailand. Endosoma, lateral view. *l.* lateral plate.

of pronotum 2.35 mm.; length of mesonotum 3.60 mm.; width across mesoacetabula 3.90 mm.

Female and winged forms unknown.

Type material: Male apterous holotype labeled: "Nam Buh, N. of Prae, N. Siam, March 1941, A. M. Hemmingsen". The type is in the Zoological Museum of Copenhagen.

Comparative notes: This new species is quite unique in several aspects, but by the thorn-like projection from the rear margin of metacoxa and the fringe of hairs on middle femur in male it obviously belongs in the subgenus *Ptilomera*. So far known it is the only *Ptilomera* with distinct connexival spines in male and the only *Ptilomera s. str.* with completely reduced dorsolateral projections of pygofer. In *Pt. weneri* Hung. & Mats., 1958 from Palawan (Philippine Islands) pygofer has also a finger-like caudal tip, but the bifurcated claspers and the different shape of anal cone immediately distinguish the latter from *Pt. hemmingseni* sp. nov. The phallus-structure in the new species is e.g. strikingly different from that of *Pt. harpyia* Schmidt as shown in the figures, but as the structure of the phallic sclerites is only known in very few species of *Ptilomera* this character cannot be used to clarify the relationships of the new species.

***Ptilomera (s. str.) harpyia harpyia* Schmidt, 1926. (Fig. 6).**

In their revision of *Ptilomera* Hungerford & Matsuda (l.c., p. 466—470) redescribe this species, originally described from Cambodia, and add Laos, Tonkin, Thailand, Burma, Malaya, and the Philippine Islands to the distributional area. The single specimen from the Philippines is probably of another species, *Pt. hungerfordi* Andersen, as pointed out by the present author (Andersen 1967).

An examination of some specimens of *Ptilomera* in the Zoological Museum of Copenhagen and the Natural History Museum, Aarhus, shows that *Pt. h. harpyia* has a still greater distributional range, exceeding that of any other species described in the genus. \*)

\*) *Pt. tigrina* Uhler, 1860 is probably identical with *Pt. harpyia* Schmidt as suggested by Hungerford & Matsuda (l.c., p. 463). If this is so the geographical range of this species will be extended as far north as S. China (Hong Kong). On the other hand, *Pt. harpyia ceramensis* Hung. & Mats., 1965 from Ceram, is quite certainly a distinct species, judging from the original description and figures (l.c., p. 470—473).

The author has seen a series of specimens from Sumatra together with specimens from Thailand and the islands of Koh Chang and Pulo Penang (see below).

The dorsal background colour of the specimens examined varies extensively, from blackish brown (Koh Chang) to light-ferruginous (Thailand). The phallus-structure of the males (fig. 6), which proved to be important in the taxonomy of this difficult genus (Andersen, l.c.), is quite constant apart from minor differences. The sclerite termed lateral plate (*l.*) in fig. 6, has its anterior projection reduced in males from Koh Chang and Pulo Penang (see also Andersen, l.c., figs. 10—11, which show the phallic structure of a male from Laos-Tonkin). All females have ventrolateral lobe of seventh abdominal segment longer than the preceding venter of seventh abdominal segment, and do not key out to the *harpyia-tigrina* couplet in Hungerford & Matsuda's key to females (l.c., p. 410).

**Material examined:** Thailand; near Sai Yok, 5-1-1962, P. Johnsen. 3 ♂, 2 ♀ apt. (Aarhus). Koh Chang; Jan. 1900, Th. Mortensen. 3 ♂ apt., 1 nymph (Copenhagen). Pulo Penang; Mus. Westerm. 1 ♂ 1 ♀ apt. (Copenh.). Sumatra; 3/1883, Klein. 5 ♂ 4 ♀ apt. (Copenh.).

**Distribution:** Burma, Laos, ? N. Vietnam (Laos-Tonkin), Cambodia, ? Philippine Islands, Thailand (incl. Koh Chang; new record), Malaya (incl. Pulo Penang; new record), and Sumatra (new record).

#### Acknowledgments.

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#### Summary.

A new species *Ptilomera* (*s. str.*) *hemmingseni* sp. nov. is described, being the second species of this genus known from Thailand. Some taxonomic and distributional notes for *Ptilomera* (*s. str.*) *harpyia* Schmidt are added.

**Literature cited.**

- Andersen, N. Møller, 1967: A Contribution to the Knowledge of Philippine Semiaquatic Hemiptera - Heteroptera. — Ent. Meddr., København 35, p. 260—282, 29 figs.
- Hungerford, Herbert B. & Ryuichi Matsuda, 1965: The genus *Ptilomera* Amyot & Serville (Gerridae: Hemiptera). — Kansas Univ. Sci. Bull., Lawrence 45(5), p. 397—515, 31 pls.
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