

**A Review of *Comatomenopon*, with Descriptions
of Two New Species¹**
(Mallophaga : Menoponidae)

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The amblyceran genus *Comatomenopon* Uchida, 1920, is currently recognized as containing three species restricted in their known distribution to the heron family (Ciconiiformes : Ardeidae) (Emerson, 1957). In the course of revisional studies of the genera within the large *Colpocephalum* complex, to which *Comatomenopon* belongs, I have obtained specimens representing these known *Comatomenopon* species as well as those of two undescribed species and one species not hitherto included within this genus. It is my purpose to present here the results of my study of these lice.

GENUS COMATOMENOPON Uchida

Comatomenopon Uchida, 1920, Annot. Zool. Japan, 9: 648.

Type species: *Comatomenopon elongatum* Uchida.

The original description of this genus (Uchida, 1920) is as follows:

"Menoponidae with elongate, whitish translucent body. Head long, rounded at anterior margin; temples prominent; lateral margin with a deep, distinct notch just in front of eye. No spines on ventral surface of head. Mesothorax small, scarcely separated from metathorax. A series of combs upon the ventral surface of posterior femora, and also on each side of certain abdominal sternites. Gastric teeth present at the distal end of crop. Male genitalia consisting of a very long and slender basal plate, continuous distally with a broad lamina, at the base of which elongate and inwardly curved parameres are set."

In addition to the above, the known members of this genus have the following pertinent features in common:

Head with (1) occipital setae all long; (2) three very long marginal temple setae; (3) terminal antennal segment undivided, at least a third longer than width of second segment; (4) weakly developed preocular nodi, and occipital nodi and associated carinae essentially absent; and (5) only one to two medium setae immediately anterior to subocular comb row. Thorax with only two minute median prosternal setae. Abdomen with (1) tergites undivided and approximately equal in length; (2) sternite III with two lateroposterior comb rows on each side; (3) vulva without lateral auxiliary row of hooked setae; (4) no ventral plates bearing setae between vulva and anus; (5) absence of internal reticulate structure

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in female genital chamber; (6) anus of female essentially oval, without inner setae; (7) male genitalia close to Fig. 2, with genital sclerite having pair of pointed lateroposterior projections and a longer median process, and with an unbarbed penis; and (8) generally little sexual dimorphism other than that associated with ventral terminalia.

The affinities of this genus seem closest to *Ciconiphilus* Bedford, especially to *Ciconiphilus decimfasciatus* (Boisduval and Lacordaire), a species also common to the Ardeidae. However, the consistently different *Comatomenopon* head shape and the tendency for a proportionately longer slender abdomen, along with other minor features of structure and chaetotaxy, enable separation from the known species of *Ciconiphilus*.

COMATOMENOPON ELONGATUM Uchida

Comatomenopon elongatum Uchida, 1920, Annot. Zool. Japan, 9: 649.

Type host: *Sterna sinensis* Gmelin—probably error. True host probably *Egretta garzetta* (Linnaeus) (see Emerson, 1957: 710).

Illustrated and discussed by both Uchida (1920) and Emerson (1957). Head with 4 rather short middorsal setae; male with about 15 short dorsal anterior head setae. Margin of pronotum with 4-5 long setae on each side in addition to 2-4 short setae near lateral angle (no short seta between second and third long setae); minute inner dorsal pronotal setae, much shorter than outer dorsal setae. Metanotum with 8-9 long marginal setae and 45-50 medium anterior setae, sparse medially; posterior margin of femur III with 2-3 short setae. Abdomen with postspiracular setae very long on I-VIII; 6-8 uniformly long tergoventral setae on I-VII, 5-6 on VIII; 18-28 anterior tergal setae on I-II, 11-16 on III-VI, 6-7 on VII, and 3 on VIII (Fig. 8). Tergite IX with 2 very long setae on each side and 2 short inner posterior setae. Sternal setae: I, 9-12; II, 44-54; III, 33-37, including 4 or so median marginal setae distinctly longer than others; IV, 50; V, 37; VI-VII, 22-23. Posterior comb row on III with 1-3 short fine outer marginal setae (as in Fig. 1). Ventral terminalia of female much as in Fig. 1. Vulva with 18 medium evenly spaced marginal setae, 27 anterior setae. Anus of female with 37 short ventral setae, shorter medially, and 42 medium dorsal setae.

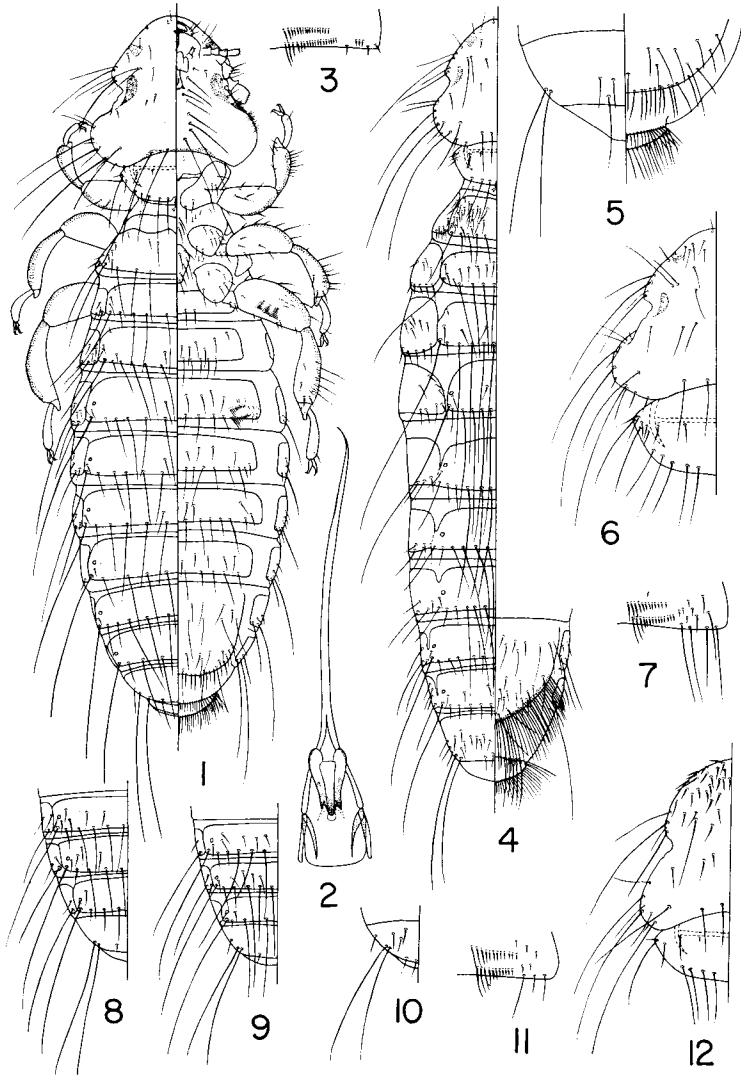
MATERIAL.—1 ♀, 1 ♂ (types), *Sterna sinensis* (but probably *Egretta garzetta*), Formosa; 2 ♀♀, *Demigretta gularis* (Bosc), Annobon Is., Gulf of Guinea.

COMATOMENOPON XENICUM (Kellogg), new combination

Colpocephalum xenicum Kellogg, 1910, Wiss. Ergebn. Schwed. Zool. Exped. Kilimandjaro, 3 (15): 52.

Type host: *Ardea (Ardetta) sturmi* = *Ixobrychus sturmi* (Wagler).

Very close to *C. elongatum*. Longer tergoventral setae, especially on posterior segments, with some extending across at least following two tergites (Fig. 9);



EXPLANATION OF FIGURES

Figs. 1-2. *Comatomenopon exilis* Price. 1, Female, dorsoventral ($\times 54$); 2, Male genitalia ($\times 98$). Figs. 3-4. *C. elbeli* Emerson. 3, Sternite III, lateroposterior ($\times 86$); 4, Female, complete dorsal, terminalia ventral ($\times 40$). Figs. 5-7. *C. ibis* Emerson. 5, Female terminalia, dorsoventral ($\times 64$); 6, Female head, prothorax, dorsal ($\times 64$); 7, Sternite III, lateroposterior ($\times 110$). Fig. 8. *C. elongatum* Uchida, female terminalia, dorsal ($\times 37$). Figs. 9-10. *C. xenicum* (Kellogg). 9, Female terminalia, dorsal ($\times 44$); 10, Male tergite IX, dorsal ($\times 47$). Figs. 11-12. *C. grayi* Price. 11, Sternite III, lateroposterior ($\times 130$); 12, Male head, prothorax, dorsal ($\times 64$).

those on IX extending well beyond tip of abdomen. Tergite IX of male (Fig. 10) with six setae medioanterior to very long setae.

MATERIAL.—1 ♀, 1 ♂ (types), *Ardea sturmi*, East Africa.

COMATOMENOPON IBIS Emerson

Comatomenopon ibis Emerson, 1958, Ann. Mag. Nat. Hist., (12) 10: 711.

Type host: *Bulbulcus ibis ibis* (Linnaeus).

Close to *C. elongatum*, but differing in the following: Head with 4 long middorsal setae (Fig. 6). Pronotum (Fig. 6) with 6–8 long marginal setae on each side and 5–9 shorter setae; inner dorsal pronotal setae longer, almost length of outer. Femur III of male with 5 posterior marginal setae. Most sternites each with up to 10–15 more setae; marginal setae on sternites IV–VII much longer laterally than in median area. Sternite III marginally with uniformly long median setae between comb rows, except for 1 very long seta on each side; 3–5 long and few shorter setae outside posterior comb row (Fig. 7). Female terminalia (Fig. 5) with inner posterior setae on tergite IX of 1 long and 1–2 shorter setae on each side; vulva marginally with 24–28 medium setae; anus somewhat protruding, with 32–33 short to medium ventral setae and only 26–27 longer dorsal setae.

MATERIAL.—1 ♂ (paratype), 2 ♀♀, *Bulbulcus ibis coromandus* (Boddaert), Thailand.

Comatomenopon grayi Price, new species

TYPE HOST.—*Ardeola grayii* (Sykes).

Head of female as for *C. ibis* (Fig. 6); head of male (Fig. 12) differs from all other known species with large number (33–40) of stout dorsal frontal setae. Pronotum (Fig. 12), as well as remainder of thorax, abdomen, and male genitalia close to *C. elongatum*, differing by having female with several long marginal setae outside of comb rows on sternite III (close to Fig. 7) and male with somewhat longer such setae (as in Fig. 11) and longer median projection of genital sclerite than shown in Fig. 2.

MATERIAL.—*Holotype* ♂ (in British Museum (Natural History)), 2 ♂, 2 ♀ paratypes, *Ardeola grayi*, CEYLON, March 1935, Meinertzhagen Collection, Slide 3459.

COMATOMENOPON ELBELI Emerson

Comatomenopon elbeli Emerson, 1958, Ann. Mag. Nat. Hist., (12) 10: 712.

Type host: *Ardea purpurea purpurea* Linnaeus.

Distinguished from other species in many ways. Only 2 short middorsal head setae (Fig. 4). Pronotum marginally with 3–4 long median setae on each side and 4–7 short setae at each lateral angle; minute inner dorsal setae and 1–2 longer outer setae. Female abdominal chaetotaxy as in Fig. 4. Postspiracular setae very long on I–III and VII–VIII, much shorter on IV–VI. At least posterior tergites partially fused with pleura. Very long median tergoventral setae on I–VI; much shorter and uniform on VII–VIII. Tergites III–VII with 0–3 short anterior setae, more numerous on I–II and VIII. Tergite IX with number of

short anterior setae in addition to marginal setae. Sparse sternal chaetotaxy, with most sternites having fewer than 20 setae, the majority of these marginal. Short relatively stout setae outside posterior comb row on sternite III (Fig. 3). Vulva with 65 very long heavy marginal setae. Anus ventrally without median setae, but with 5-6 long setae laterally plus 2-3 minute setae interspersed; 51 setae dorsally, much longer laterally. Male differs from female in having, among other things, (1) very long postspiracular setae on I-VIII; (2) more uniform and shorter tergoventral setae on I-VI; and (3) posterior margin of femur III with 7 or so setae, instead of 2-3. The genital sclerite appears to have a longer median process than in Fig. 2, but this is not clear in specimens available.

MATERIAL.—1 ♀, 1 ♂ (paratypes), *Ardea p. purpurea*, Kenya; 2 ♀♀, 1 ♂, *Ardeola speciosa* (Horsfield), no data; 1 ♂, *Platalea alba* Scopoli, Kenya (probably a straggler).

Comatomenopon exilis Price, new species

TYPE HOST.—*Ixobrychus exilis* (Gmelin).

As in Fig. 1 and separable from other known species as follows: Inner middorsal head setae longer than outer. Margin of pronotum with 5 long and 3 short setae on each side, distributed as shown; minute inner dorsal setae. Metanotum with 9-10 marginal setae, but only 9-14 anterior setae, most of these lateral. Generally few, if any, median anterior abdominal tergal setae: I, 0-1; II-V, 0-3; VI, 0-1; VII-VIII, 0. Tergite IX without anterior setae, with 2-3 long inner posterior setae. Sparse sternal setae: I, 2-5; II-VI, 16-26; VII, 13-19. Ventral terminalia close to *C. elongatum*.

MATERIAL.—*Holotype* ♀ (at U. S. National Museum), Least Bittern, MEREDOSIA, ILLINOIS, 15 May 1934. Paratypes from type host: 4 ♀♀, 4 ♂♂, Meredosia, Illinois, 15 May 1934; 9 ♀♀, 3 ♂♂, Durant, Bryan County, Oklahoma, 25 June 1959, G. M. Sutton, G. M. S. 13839.

KEY TO THE SPECIES OF COMATOMENOPON

1. Four long middorsal head setae (Figs. 6 or 12) 2
 Either 2 or 4 shorter middorsal head setae (Figs. 1 or 4) 3
2. Each side of pronotum marginally with at least 6 long and 4 short setae and both sides with long inner dorsal pronotal seta, almost as long as outer dorsal seta (Fig. 6); male with fewer than 25 prominent dorsoanterior head setae *ibis* Emerson
 Each side of pronotum marginally with 5 long and 2 short setae and at least 1 side with minute dorsal pronotal seta (Fig. 12); male with over 30 prominent dorsoanterior head setae (Fig. 12) *grayi*, n. sp.
3. Fewer than 20 anterior metanotal setae; no anterior setae on abdominal tergites VII-VIII (Fig. 1) *exilis*, n. sp.
 Over 30 anterior metanotal setae; anterior setae on both abdominal tergites VII-VIII 4
4. Female with over 50 very long marginal vulval setae (Fig. 4); male with 5 or more setae on posterior margin of femur III *elbeli* Emerson

- Female with fewer than 25 medium marginal vulval setae; male with only 2-3 setae on posterior margin of femur III 5
5. Both sexes with longer tergoventral setae on abdominal segments VI-VIII (Fig. 9); male with over 5 setae medioanterior to very long setae on last tergite (Fig. 10) *xenicum* (Kellogg)
- Both sexes with shorter tergoventral setae on abdominal segments VI-VIII (Fig. 8); male with only 2 setae medioanterior to very long setae on last tergite (as in Fig. 8) *elongatum* Uchida

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