A REDESCRIPTION OF *COLOBOMATUS MYLIONUS* FUKUI FROM AUSTRALIAN *ACANTHOPAGRUS* (SPARIDAE) (CRUSTACEA: COPEPODA: PHILICHTHYIDAE)

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Abstract.—Colobomatus mylionus Fukui has been recollected from Australian Acanthopagrus. The original description was based on a single female from a Japanese Acanthopagrus macrocephalus. The species is unique because of the presence of rings of fine processes on the surface of the lateral processes of the female. The male is described for the first time.

In 1965 Fukui described a new species of Colobomatus from the sparid fish Acanthopagrus macrocephalus from Japan. This description was based on a single damaged female. Recently, the first author, as part of a survey of the parasitic copepods of Australian bream, collected several specimens of the same species from three species of Acanthopagrus. This paper is based on that additional material including the first description of the male.

Colobomatus mylionus Fukui, 1965 Figs. 1–15

Material examined.—51 females and 2 males collected from the cephalic canal system adjacent to the nasal cavity of Acanthopagrus australis (Gunther), A. berda (Forsskål), and A. latus (Houttuyn) from off Eden, Newcastle, Brisbane, Yeppoon (all east coast Australia), and Point Sampson (west coast Australia).

Description.—Female: Body form as in Figs. 1 and 2. Length of body, including processes, 4.75 mm (3.37–5.71 mm). Greatest width 0.94 mm (0.61–1.1 mm) measured near base of posterior thoracic process. Measurements based on 10 specimens from Point Sampson. Color in life yellowish with or without black gut contents visible in vivo.

Cephalon bearing 2 dorsolateral process-

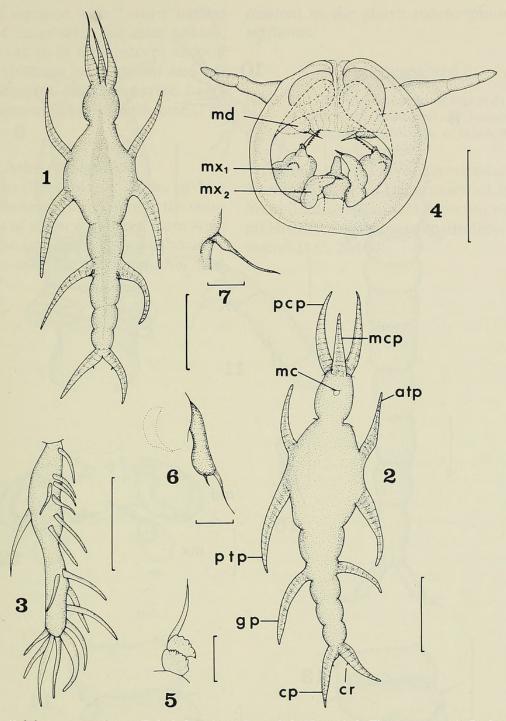
es and shorter ventromedial process. First antenna (Fig. 3) indistinctly segmented, bearing naked, blunt setae as figured. Mouth ventral, with mandibles, first maxillae, and second maxillae within. Mandible armed with single blade. First maxilla with robust base bearing row of spinules and 3 spines at base of distal process (process with row of denticles along inner edge). Second maxilla with globose basal segment and short naked terminal process. Maxilliped absent (see Fig. 4). Single anteriorly directed process arising from center of posterior margin of mouth cone.

Leg 1 (Fig. 5) 2-segmented with single naked seta on last segment. Legs 4–5 absent.

Genital segment bearing 2 lateral, posteriorly directed processes. Small genital process bearing 1 short and 1 long setae (Fig. 6) on dorsolateral posterior margin of genital segment near origin of lateral processes. Abdomen indistinctly 3-segmented. Each caudal process bearing small seta-like process (Fig. 7), possibly representing caudal ramus.

Egg sacs typical of genus and loosely attached (often dropping off when specimens handled).

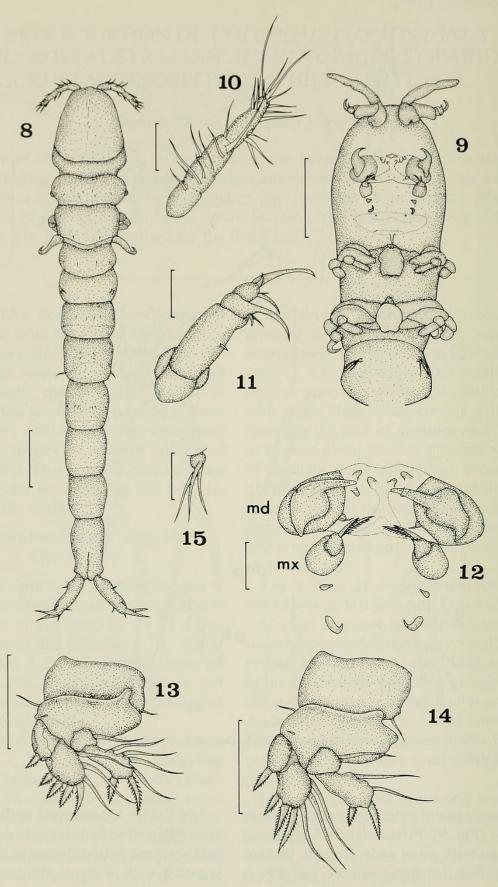
Male: Body form as in Fig. 8. Total length 0.95 mm, greatest width 0.14 mm, based on single specimen. Cephalothorax indistinct.



Figs. 1-7. Colobomatus mylionus Fukui, female: 1, Dorsal; 2, Ventral; 3, First antenna; 4, Oral area; 5, Leg 1; 6, Leg 2; 7, Leg 3.

First and second antennae separated from oral area (Fig. 9). First antenna 5-segmented, armed with setae as in Fig. 10. Second antenna (Fig. 11) 4-segmented, last 2 segments bearing spines and setae as in figure. Remaining oral appendages as in Fig. 12.

Leg 1 (Fig. 13) coxopod with inner naked seta; basipod with outer naked seta; exopod first segment with outer stout spine; second segment with 4 outer stout spines and 3 inner setae (all spines barbed along both margins); endopod first segment with inner



Figs. 8-15. Colobomatus mylionus Fukui, male: 8, Dorsal; 9, Cephalon and leg bearing thoracic segments, ventral: 10, First antenna; 11, Second antenna; 12, Oral area; 13, Leg 1; 14; Leg 2; 15, Leg 3.

seta; second segment with 2 outer barbed spines and 4 inner setae (all setae naked). Leg 2 (Fig. 14) as in leg 1 except exopod with 1 less spine on last segment and endopod last segment with 2 less setae. Leg 3 (Fig. 15) represented by 3 naked setae (Fig. 9).

Acknowledgments

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resulted in the above redescription of *C. mylionus*.

Literature Cited

Fukui, T. 1965. On some parasitic copepods of Japan [in Japanese].—Researches on Crustacea No. 2. The Carcinological Society of Japan. 60–65.

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