

***Humphreysia hoi* sp. nov. (Copepoda: Poecilostomatoida, Chondracanthidae)
Parasitic on the Gills of *Parapercis sexfasciata* (Temminck & Schlegel)
(Pisces: Teleostei, Parapercidae), with Description of
First Male of the Genus**

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Humphreysia hoi sp. nov. is described based on the specimens collected from the gill filaments of *Parapercis sexfasciata* (Temminck & Schlegel), caught in Kojima Bay, Japan. It can be easily differentiated from the type-species, *H. floreata* Leigh-Sharpe, 1934, on the body shape, first antenna, and oral appendages. The male is described for the first time in the genus, its claw-less maxilliped is unique in the Chondracanthidae.

Introduction

Although *Parapercis sexfasciata* (T & S) is the best known species of Parapercidae occurring in the coastal waters of Southern Japan, South Korea and China, only one species of taeniacanthids, *Taeniacanthus neopercis* Yamaguti, 1939, has ever been recorded from it.

This is the third report on the parasitic Copepoda of fishes of Kojima Bay, Japan (Tran The Do, 1981; Ho and Tran The Do, in press) and deals with a new species of *Humphreysia* Leigh-Sharpe, 1934, a very poorly known genus of Chondracanthidae. The copepods were recovered from the gill filaments of *Parapercis sexfasciata* (T & S) during a survey on copepod parasite fauna on fishes initiated in May, 1980.

Materials and Method

Two ovigerous and one juvenile females, with each carrying a male, were collected from the gill filaments of one *Parapercis sexfasciata*, caught in Kojima Bay, Okayama Prefecture, on 13 May, 1980.

The copepods were preserved in 5% formalin

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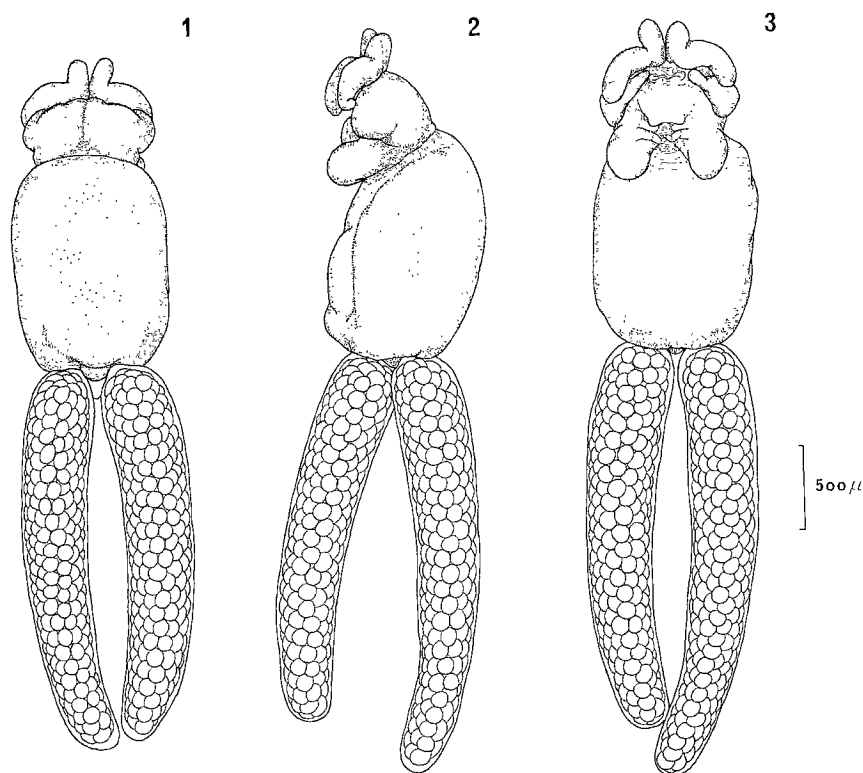
and all drawings were made from the dissected specimens with the aid of a camera lucida. Holotype and allotype (USNM 184974) are deposited in the United States National Museum of Natural History, Smithsonian Institution, Washington, D.C., and the remaining paratypes (dissected) are kept by the senior author.

Results and Discussion

Humphreysia hoi sp. nov.

Female: Body (Figs. 1, 2, 3) rather small and inflated. Cephalosome fused with the first pedigerous segment to form the head, which is small, broader than long, and bearing 2 pairs of relatively short processes on ventrolateral surface. All remaining pedigerous segments fused into a trunk, which is subcylindrical and without any process. Genito-abdomen (Fig. 4) semi-spherical, without distinguishable abdomen. Uropod (Figs. 4, 5) bearing 4 feeble setae on basal part, terminal process stout, slender and naked. Egg sac (Figs. 1, 2, 3) elongate, cigar-shaped with few rows of egg; eggs numerous, sub-spherical.

First antenna (Figs. 6, 7 (juvenile female), 8) fleshy and greatly inflated, with a short, blunt forwardly directed process at basal



Humphreysia hoi sp. nov., Female: Fig. 1. Body, dorsal. Fig. 2. Body, lateral. Fig. 3. Body, ventral.

region and a small distal process bearing 7 setae. Second antenna (Fig. 9) 2-segmented, with accessory antennule; terminal segment uncinately, strongly curved.

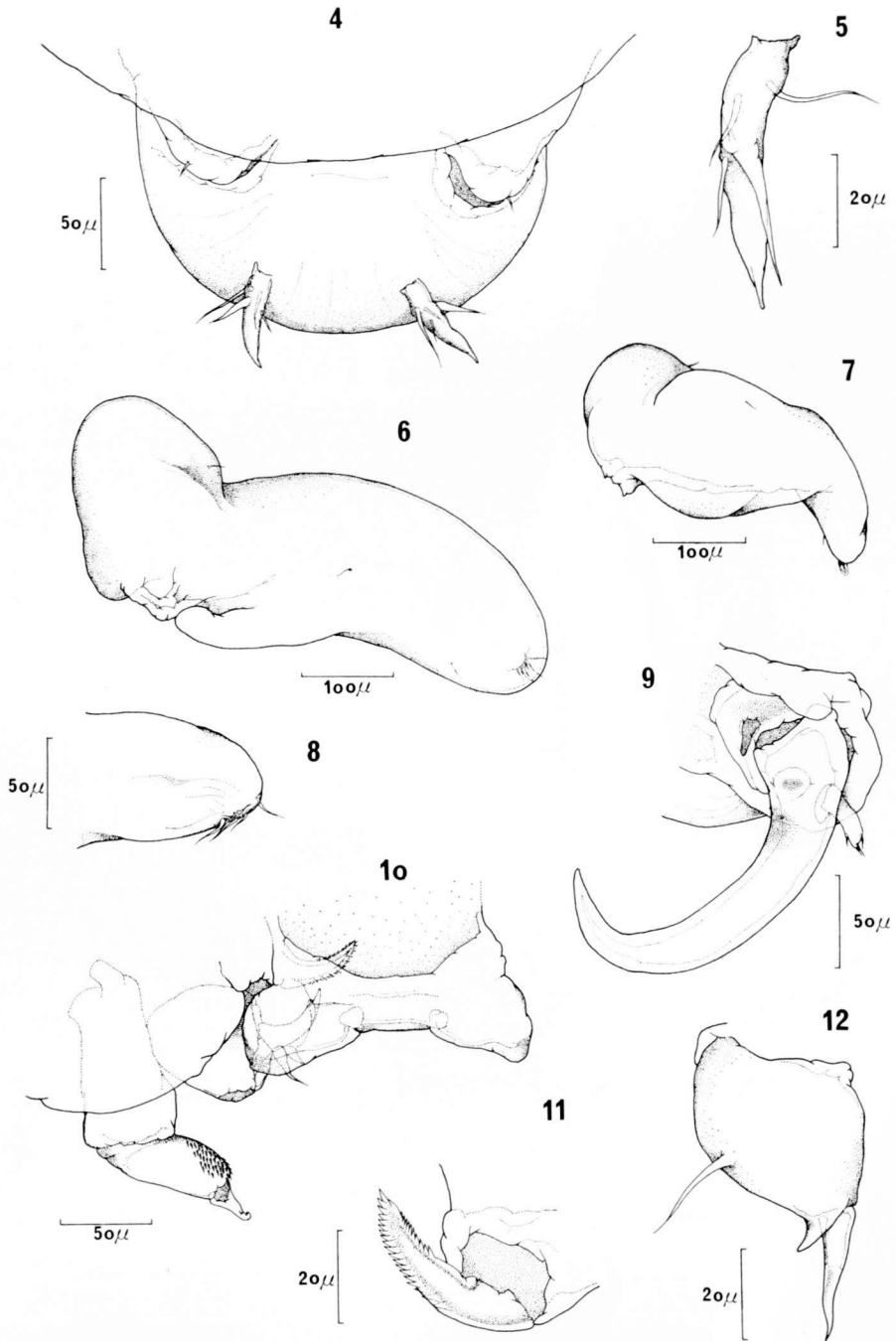
Labrum (Fig. 10) unusually shaped, with expanded lateral lobe. Mandible (Fig. 11) falcate, bearing about 20 denticles on convex side and 10 denticles on concave side. First maxilla (Fig. 12) with two spiniform setae at tip and one feeble seta at middle. Second maxilla (Fig. 13) 2-segmented; terminal segment bearing one basal seta, one subterminal tooth on concave side of claw, and a row of small denticles on dorsal surface of claw. Maxilliped (Figs. 10, 14) 3-segmented; basal segment naked; second segment with a large patch of subterminal denticles; terminal segment a curved claw with one small tooth on concave margin.

Leg 1 (Fig. 15) biramose, small. Exopod larger than endopod, and bearing 3 terminal

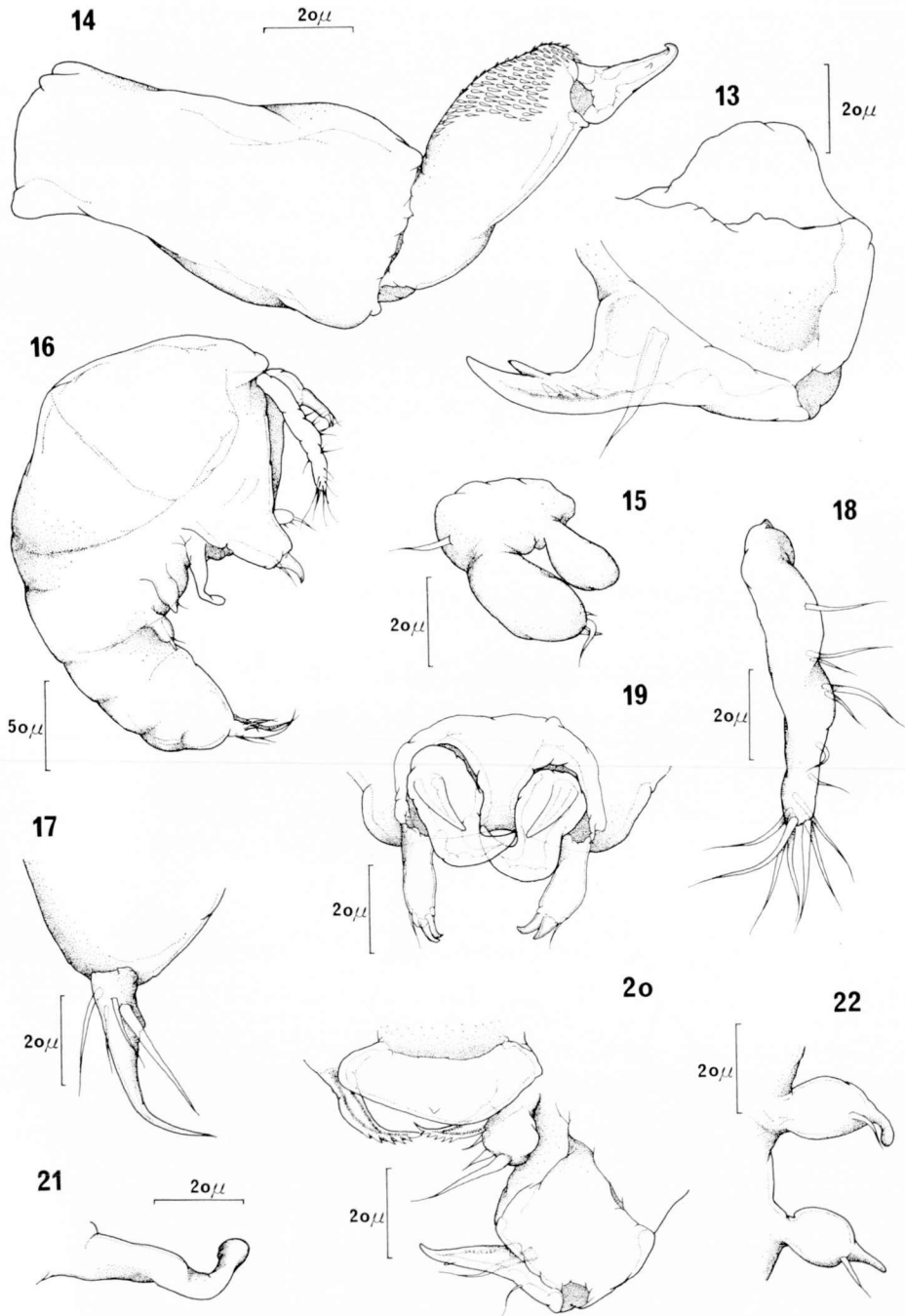
setae. Endopod a simple naked lobe. Propod bearing an outer seta.

Measurements (in μm): Body 1505 (1350–1660) (not including first antenna); cephalothorax (head) 275 (250–300) \times 645 (630–660); cephalic process L': 275 (230–370), L'': 295 (240–350); trunk 1075 (900–1250) \times 705 (590–820); genito-abdomen 135 (130–140) \times 175 (170–180); uropod 20 \times 5; egg sac 1632 (980–2350) \times 330 (270–390); egg 100.5 (80–110). First antenna 402.5 (380–420); digitiform process 190 (170–210); second antenna's claw 130.

Male: Body (Fig. 16) dwarf, strongly curved in lateral view. Cephalothorax comprising cephalosome and first pedigerous segment, much arched and larger than remaining somites of body. Trunk indistinctly segmented, somewhat rounded posteriorly. Genito-abdominal region smallest, subcircular. Uropod (Fig. 17) as in female, but smaller and with more slender terminal



Humphreysia hoi sp. nov., Female: **Fig. 4.** Genito-abdomen, dorsal. **Fig. 5.** Uropod, dorsal. **Fig. 6.** First antenna, ventral. **Fig. 7.** First antenna of a juvenile female, ventral. **Fig. 8.** Tip of first antenna, lateral. **Fig. 9.** Second antenna, ventral. **Fig. 10.** Oral area, ventral. **Fig. 11.** Mandible, ventral. **Fig. 12.** First maxilla, ventral.



Humphreysia hoi sp. nov., Female: **Fig. 13.** Second maxilla, ventral. **Fig. 14.** Maxilliped, inner. **Fig. 15.** Leg 1, antero-outer. Male: **Fig. 16.** Body, lateral. **Fig. 17.** Uropod, lateral. **Fig. 18.** First antenna, lateral. **Fig. 19.** Second antenna, ventral. **Fig. 20.** Oral area, ventral. **Fig. 21.** Maxilliped, lateral. **Fig. 22.** Leg 1 and leg 2, lateral.

process. Total length of body 350 μm .

First antenna (Fig. 18) elongate, somewhat cylindrical and indistinctly segmented; bearing 14 setae. Second antenna (Fig. 19) strongly curved; base of terminal claw with a strong accessory hook; accessory antennule relatively long, cylindrical, tipped with two feeble claws and one dorsal seta.

Labrum (Fig. 20) somewhat different from that of female, with expanded posterior margin. Mandible (Fig. 20) small, with only a row of about five denticles on convex side. First and second maxilla (Fig. 20) as in female though smaller. Maxilliped (Fig. 21) greatly reduced, elongate, cylindrical, without segmentation and ending. Leg 1 and leg 2 (Fig. 22) similar, and unilobate; each tipped with a slender process and bearing a subterminal outer seta.

Remarks: *Humphreysia hoi* is easily distinguishable from the type-species *H. floreata* Leigh-Sharpe, 1934 by the body shape, the two pairs of cephalic processes, and the appendages. According to Ho's (1970) redescription of *H. floreata*, the digitiform basal process of first antenna is elongate, but that of *H. hoi* is relatively short.

Although the second antenna of the type-species was broken, but judging from the one in *H. hoi*, it probably was uncinatate and with accessory antennule. As to the oral appendages, *H. hoi* differs from the type-species in the labrum, the second maxilla and number of teeth in the mandible. Although the leg is similarly built in both species, they are different in the segmentation and armature. It is interesting to note that *H. hoi* bears certain resemblance to *Prochondracanthopsis quadricornutus* Shiino, 1960, especially in the body shape.

The male is recorded for the first time in this genus and shows some relatively interesting characters. As in many mature males of chondracanthids, the cephalothorax of the present species is also much swollen and globose with the remaining part of the body curved ventrally.

The first antenna is as usual, being slender, cylindrical and bearing more setae than in the female but the second antenna is quite different in having a strong hook at the base of the terminal claw. The maxilliped is perhaps the most remarkable appendage. It is different from all the known species of Chondracanthidae.

Two ovigerous females of *Taeniacanthus neopercis* Yamaguti, 1939, were also collected from the same host.

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寄生性橈脚類 Poecilostomatoida 亜目, Chondracanthidae 科の新種,
Humphreysia hoi について

Tran The Do^{*,1)}・笠原正五郎*

(昭和 56 年 10 月 19 日受理)

岡山県児島湾産のクラカケトラギス (*Parapercis sexfasciata*) の鰓から見出だされた寄生性橈脚類, Chondracanthidae 科の新種, *Humphreysia hoi* を記載した。本種は *Humphreysia* 属の単一種で, type species の *H. floreata* LEIGH-SHARPE, 1934 とは体の形態, ならびに第 1 触角や口部附属肢などに見られる差異から容易に区別できる。

本種の雄は本属の雄として初めて記載され, その顎脚に鉤のないことは Chondracanthidae 科の既知の雄には見られない特徴である。

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