

情報

**Redescription of *Clavellisa dorosomatis* YAMAGUTI, 1939, a Lernaeopodid Copepod Parasitic on Gizzard Shad, *Konosirus punctatus* (TEMMINCK & SCHLEGEL) (Pisces: Dorosomatidae) in Japan**

Tran The Do\* and Ju-shey Ho\*\*

\*Ocean Research Institute, University of Tokyo, Nakano-ku, Tokyo 164, Japan

\*\*Department of Biology, California State University, Long Beach, California, 90840 U.S.A.

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*Clavellisa dorosomatis* YAMAGUTI, 1939 is redescribed based on the adult females recovered from the gill rakers of *Konosirus (Clupanodon) punctatus* (TEMMINCK & SCHLEGEL) collected in Kojima Bay, Japan.

*Clavellisa* WILSON, 1915 is a genus of lernaeopodid Copepoda with almost all of their members occurring as the gill parasites of teleosts of the order Clupeiformes. Two species of this genus of parasites are known from Japan, namely, *C. dorosomatis* YAMAGUTI and *C. scombri* (KURZ).

The occurrence of the later species in Japan was reported by YAMAGUTI (1939) and SHIINO (1959) and it has recently been excellently redescribed by KABATA (1979). However, the former species is still poorly known, it has not been seen again since the publication of its brief description by S. YAMAGUTI in 1939. Therefore, we are glad to have the opportunity of filling in the gap of our knowledge on this species. We would like to thank Dr. Shogoro Kasahara of the Faculty of Applied Biological Science, Hiroshima University for the use of facilities in his laboratory and Dr. Shin-ichi Uye of the same institution for his assistance in collecting the host fishes.

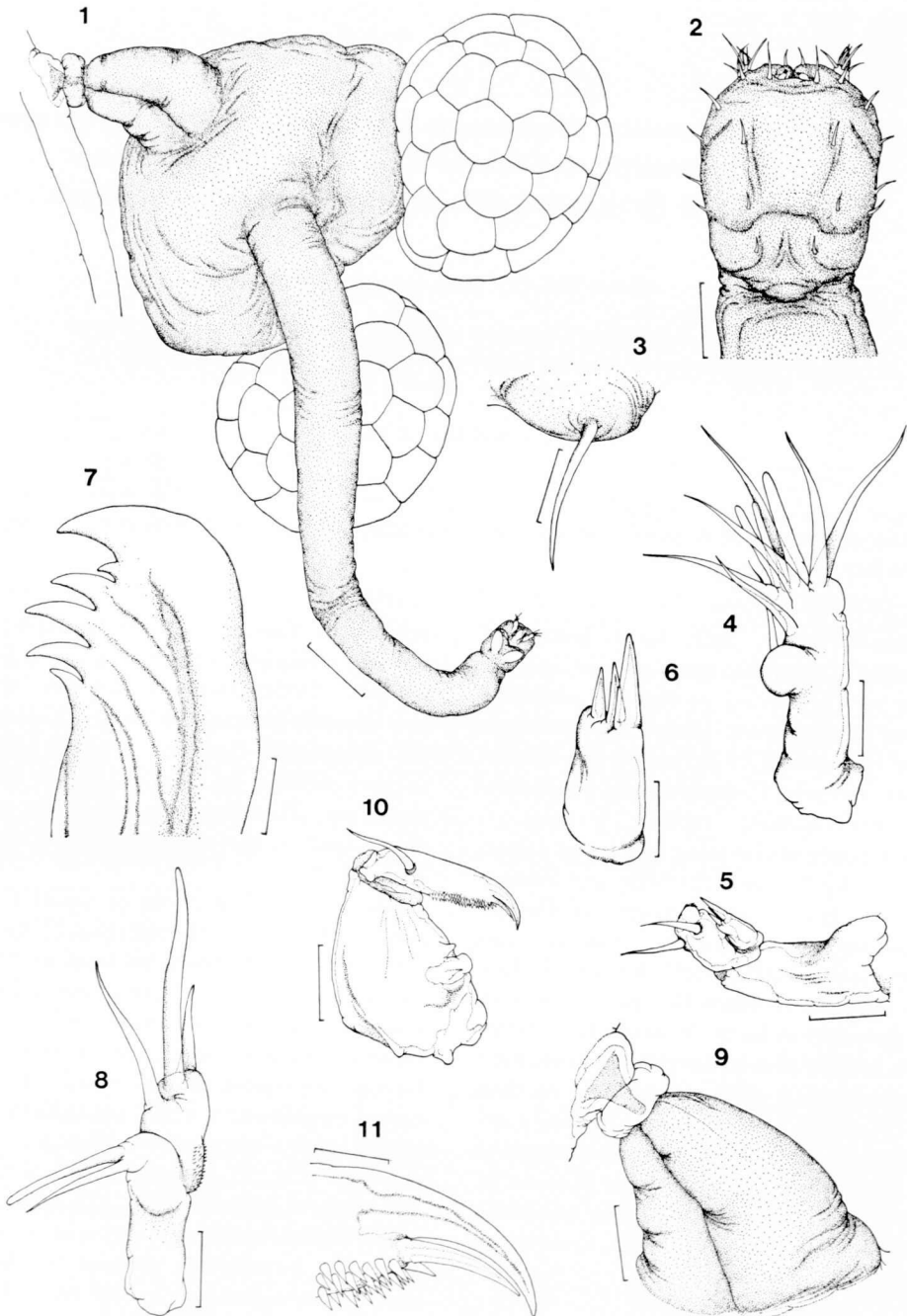
### Results

**Material:** Sixty-six adult females were recovered from the gill rakers of 16 *Konosirus (Clupanodon) punctatus* caught between May 11, 1980 and March 24, 1981.

**Remarks:** *Clavellisa dorosomatis* was de-

scribed by YAMAGUTI (1939) based on a single female obtained from the gill of *Dorosoma thrissa* (LINNAEUS). While our specimens are clearly identifiable with *C. dorosomatis*, we discovered that the original description lacked details in almost every single appendage. Therefore the following redescription based on the newly collected material is attempted.

The female (Fig. 1) is of usual *Clavellisa*-form. The cephalothorax (Fig. 1) is extremely elongated, about twice as long as the trunk. The head (Fig. 2) is nearly rectangular with slightly expanded anterior end. There are 18 seti-form (six dorsal, four distal, and eight lateral) processes on the head. The caudal ramus appears as a small papilliform process, tipped with a slender seta (Fig. 3). The first antenna (Fig. 4) is tipped with five slender and three digitiform setae. In addition there is one subterminal seta and a short seta that sits on a papilliform process in the middle part of the appendage. The second antenna (Fig. 5) is elongated, with unarmed protopod; exopod tipped with 3 unequal spines (Fig. 6); endopod larger than the former, armed with 2 seti-form elements and a row of small denticles. The mandible (Fig. 7) is extremely small, armed with only 6 teeth, of which one



*Clavellisa dorosomatis* YAMAGUTI, 1939, female: **Fig. 1.** Oviparous female, ventrolateral (200  $\mu\text{m}$ ). **Fig. 2.** Head, dorsal (50  $\mu\text{m}$ ). **Fig. 3.** Caudal ramus, ventral (20  $\mu\text{m}$ ). **Fig. 4.** First antenna, lateral (10  $\mu\text{m}$ ). **Fig. 5.** Second antenna, anterior (20  $\mu\text{m}$ ). **Fig. 6.** Same, endopod (7  $\mu\text{m}$ ). **Fig. 7.** Tip of mandible (2  $\mu\text{m}$ ). **Fig. 8.** First maxilla, lateral (10  $\mu\text{m}$ ). **Fig. 9.** Second maxilla, ventrolateral (100  $\mu\text{m}$ ). **Fig. 10.** Maxilliped, posterior (20  $\mu\text{m}$ ). **Fig. 11.** Tip of maxilliped, posterior (5  $\mu\text{m}$ ).

is a secondary tooth. The first maxilla (Fig. 8) has a lateral exopod and three unequal terminal setae; the exopod is a small swelling tipped with a digitiform seta and a simple seta subequal in length. The second maxilla (Fig. 9) is relatively long, about 1/2 of the length of the trunk and tipped with a large bulla. The maxilliped (Fig. 10) has its stout corpus armed with a short spine and a protrusion and its subchela with a basal seta, a terminal barb and rows of spinules between them; terminal claw slender, without secondary tooth (Fig. 11).

*Measurements (in  $\mu\text{m}$ ):* Cephalothorax 1037

(620–1500)×161 (125–190), trunk 536 (420–630)×812 (680–1010), egg sac 379 (290–470)×408 (345–460).

#### References

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### 児島湾産コノシロ (*Konosirus punctatus*) に寄生する橈脚類, *Clavellisa dorosomatis* YAMAGUTI, 1939 について

Tran The Do\* · Ju-shey Ho\*\*

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岡山県児島湾産コノシロ [*Konosirus (Clupanodon) punctatus* (TEMMINCK & SCHLEGEL)] の鰓耙に寄生する橈脚類, ナガクビムシの *Clavellisa dorosomatis* YAMAGUTI, 1939 について詳しく再記載した。

\* 東京大学海洋研究所

\*\* カリフォルニア州立大学