# BATELLA BIFURCATA MIYA \& MIYAKE, 1968, A JUNIOR SYNONYM OF B. PARVIMANUS (BATE, 1888) (DECAPODA, ALPHEIDAE) 

BY

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In an earlier paper (Miya \& Miyake, 1968) a new alpheid, Batella bifurcata, was described from a single male specimen collected near Danjo-gunto Islands off the west coast of Kyushu, Japan. This second species of Batella Holthuis, 1955 ( = Cheirothrix Bate, 1888, nom. preocc.) seemed very near to the other species of the genus, Batella parvimanus (Bate, 1888), from Cape York, Queensland, Australia, but it was thought to be distinguished by having (1) a protuberance on the mesial gastric region, (2) the outer antennular flagellum bifurcate, with tufts of long hairs on the two-segmented stouter branch, and (3) the dactyli of the last three pereopods biunguiculate, with a tiny accompanying tooth at the midlength of the ventral margin (Miya \& Miyake, 1968: 120). During a visit to the British Museum (Natural History) in 1978 I had a chance to examine the type specimen of Cheirothrix parvimanus Bate, 1888. This type material shows, however, that the characters supposed to be different from those of B. bifurcata were erroneously described and illustrated (Bate, 1888: 533, pl. 96 figs. 2, 2b).

Descriptive remarks on the type of Cheirothrix parvimanus are provided below:

1. Type: Male, Reg. no. 88.22 in British Museum (Nat. Hist.), from "'Challenger"' Station 186 (8 September $1874 ; 10^{\circ} 30^{\prime} \mathrm{S} 142^{\circ} 18^{\prime} \mathrm{E}$ ) off Cape York, Queensland; preserved in rather good condition. The body is 13.0 mm long (carapace length 4.3 mm ); eyes, left antennule, right antenna, right mandible, right second and third maxillipeds, right first, right second, left fourth and both of fifth pereopods are detached from the body and missing.
2. The carapace is partly damaged; smooth, and provided on the gastric region with a mesial protuberance, which is less distinct than in the Japanese specimen of $B$. bifurcata (fig. 1A, B). The low rostral carina as seen in the Japanese specimen is absent (fig. 1A).
3. The outer antennular flagellum is bifurcate; the stouter branch is twosegmented and bears a tuft of hairs at the distal margin of each segment (fig. 1C).
4. The third maxilliped bears a movable, seta-like spinelet at the distal sixth of the ventral margin of the antepenultimate segment (fig. 1D); the Japanese specimen bears no such spinelet but a few hairs only.
5. The dactyli of the third and fourth pereopods are biunguiculate and provided with the same accompanying tooth as found in the Japanese specimen (fig. 1E).
6. The telson is 4.2 times as long as broad at the posterior margin. It bears two pairs of dorsal spines, the anterior pair being situated at the midlength, the posterior pair in the distal fourth of the length (fig. 1F); in the Japanese specimen the anterior pair is nearer to the posterior.


Fig. 1. Type of Cheirothrix parvimanus Bate, 1888 , male, carapace length 4.3 mm , British Museum (Nat. Hist.) Reg. no. 88.22 from 'Challenger' Sta. 186. A, B, anterior part of carapace, $p$, mesial protuberance; C, right antennule, lateral view; D, left third maxilliped, mesial view; E, dactylus and distal part of propodus of left third pereopod; F, telson.

These characters displayed by the type of Cheirothrix parvimanus apparently indicate that B. bifurcata Miya \& Miyake should be merged with B. parvimanus. Minor descrepancies stated above are of no systematic importance.

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## AN INVERTEBRATE HOST FOR CALIGUS (COPEPODA, CALIGIDAE)?

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While investigating a report of an unusual parasite occurring on the giant tiger prawn, Penaeus monodon Fabricius, 1798, in a private prawn farm in Chantaburi Province, Thailand, in 1977, one of us (L.R.) discovered the cultured decapod to be heavily infected with Caligus. On closer examination, the parasite proved to be Caligus epidemicus Hewitt, 1971. The identity of the species was apparent in the shape and proportions of both male and female genital complexes and in the structural details of the appendages. In particular, the fourth leg had a two-segmented exopod, with the first terminal spine longer than the ramus itself, the second less than half the length of the first, and the third vestigial and easily overlooked. This combination of morphological characteristics ruled out the possibility of misidentification. The size of both males and females was within the range of measurements given by Hewitt (1971).

The host prawns, measuring from 6 to 19 cm in length, were quite heavily infected. The average intensity of infection was 19 Caligus per host and the

