九州大学学術情報リポジトリ
Kyushu University Institutional Repository

A new record for Galathea ternatensis de Man from Kyushu, Japan (Crustacea, Anomura)

Miyake, Sadayoshi
Zoological Laboratory, Department of Agriculture, Kyushu University

Baba, Keiji
Zoological Laboratory, Department of Agriculture, Kyushu University

https://doi.org/10.5109/22710

出版情報：九州大学大学院農学研究院紀要. 12 (4), pp.405-409, 1963-08. Kyushu University
バージョン：
権利関係：

KYUSHU UNIVERSITY

Journal of the Faculty of Agriculture, Kyushu University, Vol. 12, No. 4
August 30, 1963

A new record for *Galathea ternatensis* de Man from Kyushu, Japan (Crustacea, Anomura)[1,2]

Sadayoshi MIYAKE and Keiji BABA

Examining galatheids collected off Tomioka, Amakusa Islands, on the west side of Kyushu where stands the Amakusa Marine Biological Laboratory of Kyushu University, we found that only one specimen agreed in general with *Galathea orientalis* var. *ternatensis* which was at first described by de Man and later by Melin as *G. ternatensis*. This species is rare and perhaps new to the fauna of Japan, so far as we know.

This specimen at our disposal was collected by Mr. Taiji Kikuchi of the Amakusa Marine Biological Laboratory, to whom we wish to express our hearty thanks for his kindness to send us the material.

Galathea ternatensis de Man

(Figs. 1-2)

Galathea orientalis var. *ternatensis* de Man, 1902, p. 714—Ternate.
Galathea providentia Laurie, 1926, p. 125, pl. 8, figs. 1-4—Providence.
Galathea ternatensis Melin, 1939, p. 67, figs. 39-42—Bonin Islands.

Material examined.

Off Tomioka, Amakusa Islands, Kyushu, 20-40 m deep; 1 female, Cat. No. 4581, Zoological Laboratory, Faculty of Agriculture, Kyushu University; collected by T. Kikuchi; Aug. 22-24, 1956.

Description. Carapace nearly as long as broad, exclusive of the rostrum; the upper surface strigose and pubescent; the striation rather deep and provided with the usual fringe of fine setae which are

[1] Contributions from the Zoological Laboratory, Faculty of Agriculture, Kyushu University, No. 317.

[2] Contributions from the Amakusa Marine Biological Laboratory, Kyushu University, No. 176.

mostly short and devoid of long setae; number and arrangement of the transverse ridges as represented in Fig. 1; no spines on the first transverse ridge in front of the gastric region which is rather circumscribed. The rostrum about twice as long as broad, armed with four teeth on each side; the tip of the rostrum sharp and elongated; the dorsal surface pubescent and scale-like.

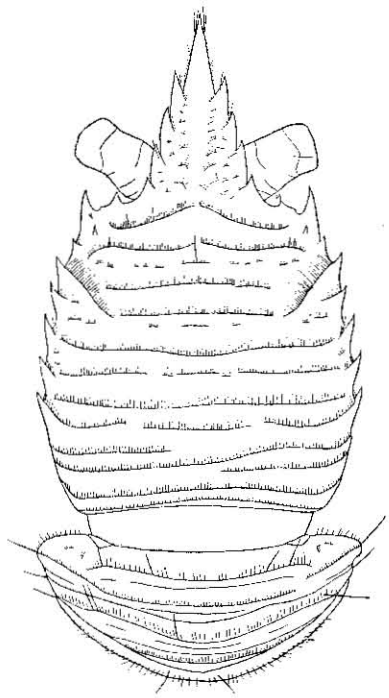

Fig. 1. *Galathea ternatensis* de Man, in dorsal view, ×6.

The outer orbital angle slightly toothed and pyramid-like, behind this the carapace armed on both sides with seven teeth of which the first is the largest and the second is quite small; behind the first lateral tooth lies a spinule; the second transverse ridge has a tubercular tooth near the lateral end of it on the left, and two near the same on the right side; behind the insertion of the antenna or below the second lateral tooth of the carapace, there is a small spine which is not seen from a dorsal view.

There is a deep median transverse ridge on the dorsal surface of each abdominal segment except the first and last; on both sides anterior and posterior to it run less prominent striae than the median in the second to fourth abdominal segments; each transverse ridge provided with short fine setae.

The form of the anterior sternal segments as represented in Fig. 2, D. The first joint of the antennular peduncle armed with three forwardly directed spines on its distal margin, one of which extends to the top of the second rostral tooth. The second peduncle of the antenna armed with an outer distal and an inner distal spine, the third peduncle with an inner distal spine.

The merus of the third maxilliped nearly as long as the ischium, with the inner margin trispinose, and also with the outer margin bispinose; on the inner ridge the ischium has a row of 21 closely placed denticles.

The cheliped as represented in Fig. 2, E; they are thickly provided with long setae chiefly on the propodus and dactylus; the fingers not

gapped. The ambulatory legs have long setae; the first and second ambulatory legs armed with a row of spines along the upper and lower margins of the merus, and along the upper margin of the carpus, proximal half of the propodus, and a second row of spines lies to the outer side of the marginal carpal row; number and arrangement of these spines as represented in Figs. 2, F–H; there are also slender, elongated, and anteriorly directed spines on the lower margin of the propodus; in the third ambulatory leg the armature is weak; the dactylus of each ambulatory leg has a large unguiform tooth and three small ones above the true unguiculus on the inner margin, and from the base of each a long movable seta or spine stands.

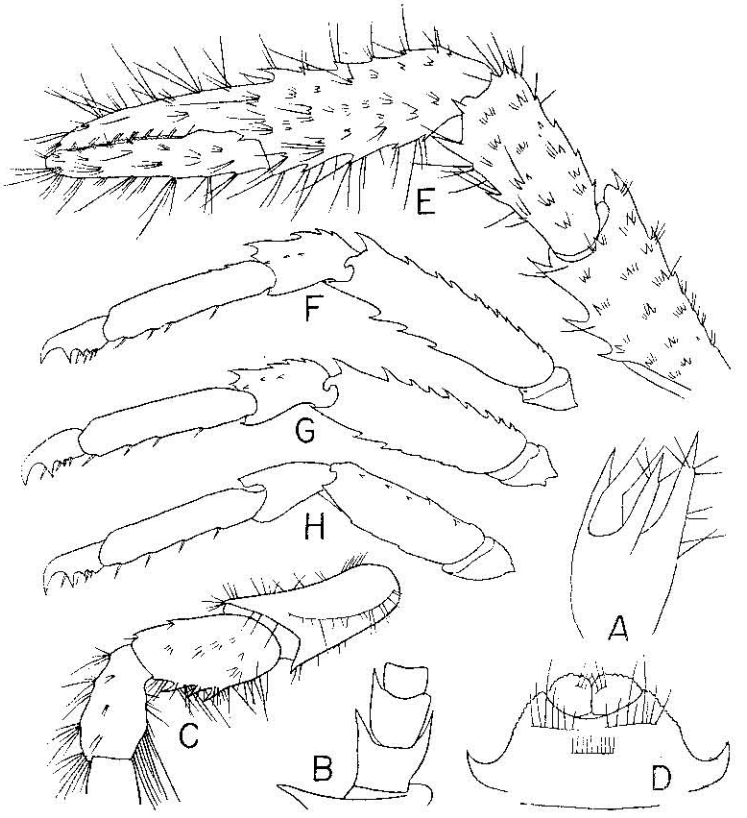

Fig. 2. *Galathea ternatensis* de Man.

A: first joint of left antennule, ×10, B: basal joints of left antenna, ×12, C: endopodite of left third maxilliped, ×10, D: anterior part of sternal segments, ×9, E: right cheliped in dorsal view, ×6, F: left first ambulatory leg, ×6, G: left second ambulatory leg, ×6, P: left third ambulatory leg, ×6.

Colour in life. This specimen is of a light reddish purple all over the surface.

Dimensions (in mm):

Length of carapace including rostrum	11.70
Breadth of carapace	7.00
Length of rostrum	4.10
Breadth of rostrum	2.25
Length of cheliped	24.80
Length of carpus	4.25
Breadth of carpus	2.05
Length of palm	5.60
Breadth of palm	2.40
Length of dactylus	4.75
Breadth of dactylus	1.10
Length of ischium of third maxilliped	1.85
Length of merus of third maxilliped	1.90

Each appendage is measured on the left. The length of the rostrum is from the tip of the rostrum to the level of the angle between the basal and the anterior spine to it.

Remarks. This specimen agrees in general with the descriptions of the species given by de Man and Melin, though this shows some differences in the following characters: (1) Number of the inner marginal spines of the dactylus of the ambulatory legs. That of our specimen is as in Figs. 2, F–H, while the specimens from the Ternate and Bonin Islands have six and five respectively. (2) The arrangement of the transverse ridges on the posterior portion of the charapace. In addition to above facts, this also has a strong resemblance to *G. providentia* Laurie, from which it differs in general arrangement of the transverse ridges on the carapace, in being thickly ornamented with long setae on the cheliped, and in number of the lower marginal meral spines of the ambulatory legs.

It seems to be an important character that the dactylus of the ambulatory legs of our specimen has a large unguiform tooth above the true unguiculus on the inner margin, which is not mentioned by the previous authors, though the Laurie's figure resembles our specimen. It is of interest to note that this is of rather large size, while *G. orientalis* Stimpson, of the largest specimen we have seen, is rather smaller than the former. In considering this species as different from *G. orientalis* var., we think right to follow Melin, but de Man has priority.

LITERATURE

Laurie, R. D. 1926. Anomura collected by Mr. Stanley Gardiner in the Western Indian Ocean in H.M.S. "Sealark." Trans. Linn. Soc., London, ser. 2, Zool. vol. 19, pt. 1, pp. 125–128, pl. 8, figs. 1–4.

de Man, J. G. 1902. Decapoden und Stomatopoden. Abh. Senckenb. Naturf. Ges., Frankfurt a.M., vol. 25, pp. 714–717.

Melin, G. 1939. Paguriden und Galatheiden von Prof. Dr. Sixten Bocks Expedition nach den Bonin-Inseln 1914. Kungl. Svenska Vetensk.-Akad. Handl., Stockholm, ser. 3, vol. 18, pp. 67–72, figs. 39–42.