# Lauriea, a New Genus Proposed for Galathea gardineri LAURIE (Crustacea, Anomura, Galatheidae)

By

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Galathea gardineri Laurie, 1926, known as an aberrant form was considered to be placed in a different genus rather than in the present. A new generic name, Lauriea, was hereby proposed.

In the course of revising the Japanese galatheids, special attention has been paid to Galathea gardineri Laurie. This species has only three times been recorded, including Galathea biunguiculata Miyake which was considered by Tirmizi (1966) a synonym of this species and was known from the Red Sea, Indian Ocean and the Palau Islands. Very recently I had a chance to examine a single specimen identical with this species from the north coast of Kyushu, Japan. From an examination of the specimen and previous records the species proved to be quite aberrant in shapes of dactyli of walking legs, endopods of uropods and third thoracic sternites. Likewise the absence of first pleopods appears, so far as I know, only in this species and Phylladiorhynchus pusillus (Henderson) when we consider this regard in Galathea s.l. For this reason it is thought that the species in question is placed in a different genus rather than in Galathea. A new genus, Lauriea, was therefore established in honour of R. D. Laurie who is the first to discover the species.

#### Lauriea gen. nov.

Type species. Galathea gardineri Laurie, 1926.

DIAGNOSIS. Carapace weak and broken in striation, in most cases spinous and setose above. Its lateral margin armed with spines. Basal antennular segment with three terminal spines. Second segment of antennal peduncle produced distally to form an outer and an inner marginal spine, its inner margin having a distinct spine medially. Anterior margin of third thoracic sternite produced forwards.

Chelipeds stout and setose, with the wrist strongly spined internally. Dactylus of walking leg curved inward distally, with a well-developed claw on inner margin. Endopod of uropod elongated and concealed both beneath the protopod of uropod and telson at its inner side, and consequently its outer margin becoming posterior in natural condition.

REMARKS. A large genus Galathea comprised some groups of aberrant forms to which new genera, Liogalathea, Phylladiorhynchus and Allogalathea, were assigned in the previous paper (BABA, 1969). The closest allies to the present form is the genus

52 Keiji Baba

Galathea proper. As has been pointed out by Tirmizi (1966), this form is characterized by the fact that the lateral margin of the endopod of the uropod becomes posterior in natural condition (Fig. 1, a). In most cases, in Galathea proper the tail fan is well developed for swimming, as represented in Fig. 1, b. Somewhat reduced tail fan, in proportion to its body size, is seen in Allogalathea elegans (Fig. 1, c), but its endopod of

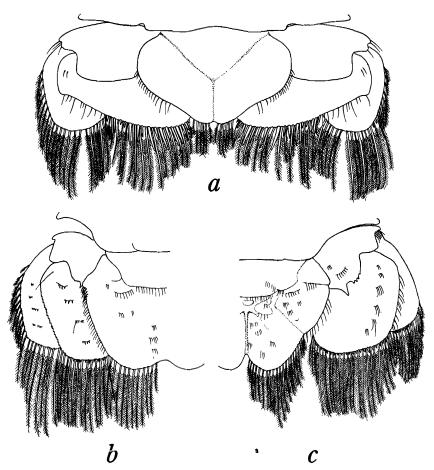


Fig. 1. Tail fans, a, Lauriea gardineri (LAURIE); b, Galathea orientalis STIMPSON; c, Allogalathea elegans (Adams et White).

the uropod possesses a normal form. The dactyli of walking legs I-III in the present bear each a well-developed claw internally. In large *Galathea*, the dactyli of the walking legs usually have the inner margin serrated or spined, but none of the other species is known to bear such a large claw only. In addition very conspicuous in this form is the third thoracic sternite, the anterior margin of which protrudes forwards to represent a triangular shape in ventral view. A whole survey of the Japanese groups of *Galathea* s.l., further, proves that the present and *Phylladiorhynchus pusillus* alone have no first pleopod. From the above-mentioned respects it is thought that the present form should be placed in a new genus.

## Lauriea gardineri (LAURIE, 1926), comb. nov. (Fig. 1, a)

Galathea gardineri Laurie, 1926, p. 131, pl. 9, figs. 1-5—Providence; Seychelles. Galathea biunguiculata Miyake, 1953, p. 199, figs. 1, 2—Palau Islands. Galathea gardineri: Tirmizi, 1966, p. 177, fig. 2—Red Sea. Galathea gardineri: Lewinsohn, 1969, p. 112.

MATERIAL. South of Okino-shima Islet, north coast of Kyushu, 34°16.4′N, 130°06.4′E, 95 m deep, coarse sand & shells, Aug. 5, 1968—1  $\diamondsuit$ , ZLKU 15786 (carapace length, 5.5 mm).

COLOUR. No information on colour has been procured of this species. After preservation in five percent of formalin for two months the present specimen is of a light seashell pink on all over the surface.

REMARKS. The specimen before me agrees quite well with the original description and Tirmizi's account. Miyake's species, Galathea biunguiculata, was considered by Tirmizi (1966) a synonym of the present species, with a slight hesitation. She mentioned that the only difference between the two species is that in Miyake's specimen the inner margin of the third leg is unarmed whereas in the Indian Ocean specimens it has a few distal spines. In this respect the specimen before me coincides with the Indian Ocean material. In consideration of the fact that the walking legs in other members in the Galatheidae, as usual, gradually reduce in armature posteriorly, such a slight difference may be thought to fall within a range of variation.

DISTRIBUTION. The species has hitherto been known from the Red Sea, Indian Ocean and the Palau Islands in depths between 14 and 104 m, with a bottom nature, sand and mud (MIYAKE, 1953). The present is for the first time taken in the Japanese waters and therefore extends its known range far northward.

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