

Preliminary Description of a New Crab of the Parthenopidae from the Seychelles Bank

By

Masatsune TAKEDA

Department of Zoology, National Science Museum, Tokyo

A small collection of crabs from the Seychelles Bank and its neighborhood in the Indian Ocean came to the author's hand for study through the courtesy of Dr. M. AMIO of the Shimonoseki University of Fisheries. These crabs represented by 13 species of 5 families were all collected in 1968 by the Training Vessel Kôyô Maru during her expedition to the Indian Ocean. The descriptive account has been almost completed, but due to certain situations of the science bulletin, to which the manuscript is to be submitted, its publication may be delayed. Therefore, only a distinctive new species of the family Parthenopidae is preliminarily described in the following lines.

Before going further, the author wishes to express his sincere gratitude to Dr. Masaru AMIO for this interesting collection of crabs, and to Mr. Hajime CHOKKI of Yokohama National University for the information about a specimen of *Aethra scruposa* at his hand.

Family Parthenopidae

Genus *Aethra* LEACH, 1816

Aethra seychellensis sp. nov.

(Pl. 1)

Type. Holotype, ♂, NSMT-Cr. 4380; Seychelles Bank; Dec. 25-30, 1968.

Description. Greatest breadth, 57.0 mm, and length including rostrum, 39.8 mm. Carapace transversely elliptical, the thin lateral borders concealing chelipeds and ambulatory legs. Dorsum minutely punctate with a few scattered minute tubercles. Hepatic, lateral and posterior regions depressed or rather concave due to the upturned lateral and posterior borders. Gastric region pronouncedly and widely convex with a high plate which is directed obliquely backward and shallowly divided into two at its tip; anterior surface of this gastric plate medially channelled toward the rostrum, being laterally bordered with a pair of ridges running each to supraocular cave; each lateral end of gastric plate continuous posterolaterally with a short ridge of branchial region.

Rostrum short, rather truncated at its summit, and broad at base; its free margin

irregularly granular, only its lateral part being eroded and double-rimmed. Lateral border of carapace regularly convex, strongly turned up, and divided into seven lobes by the deep closed fissures, each lobe being again marginally subdivided into two; a distinct tooth bordering suture line, a more distinct one in the middle of each lobe, and some minute ones laterally. Posterior border of carapace curved upward and inward, and thus its median part strongly concave in its dorsal view. Sternum and abdomen sculptured with the eroded grooves or pits.

Antennal basal segment broad and long, completely filling orbital hiatus. Chelipeds equal, with cristate borders; upper border of carpus cut into six conical teeth; lower border of palm of right chela armed with five teeth, but that of left chela irregular without distinct teeth. Ambulatory legs short, decreasing in length from first to fourth pair; anterior crest of merus unarmed, but upper crest of its posterior border armed with two conical teeth; anterior crest of carpus also with two, and anterior crest of propodus with one and the posterior with two; dactylus small and tuberculated.

Remarks. There is no difficulty in the definition of this genus with the expanded and upturned lateral borders of the carapace. GUINOT (1966, 1967) showed the close affinities of this characteristic genus to the genera *Osachila* STIMPSON, *Hepatus* LATREILLE, *Hepatella* SMITH and *Actaeomorpha* MIERS, which have hitherto been considered as the constituents of the Leucosiidae and are now thus referred to the Parthenopidae. The type-species, *A. scruposa* (LINNAEUS) is generally considered to be well known, though the records of occurrences are rather few and the descriptions only by ALCOCK (1895) and SAKAI (1938) are available for references. It ranges from the vicinity of the Kii Peninsula in Japan to New Caledonia and through the coast of India to East Africa. Another valid species, *A. scutata* SMITH from the East Pacific, which is often considered to be a subspecies of the Indo-West Pacific species, was well figured by RATHBUN (1925), GARTH (1958) and GUINOT (*loc. cit.*). In 1951, EDMONDSON described a third species from Hawaii which is small only 30 mm in its greatest breadth and characterized by the complete absence of dentition on the lower border of the palm.

Though the known species mentioned above are closely related to each other in the general appearance, the present new species is the nearest kin of *A. scruposa*. Even if the characteristic plate of the gastric region and the upturned posterolateral border of the carapace referred to the small size of the type-specimen, the new species is readily distinguished from the previously known species by the simple sculpture of the rostrum. As regards the distinguishing features, it is shortly noted that in *A. scruposa* the gastric region is prominently convex and divided into two mounds, the posterolateral border of the carapace is not upturned, but only depressed or rather directed downward, and that the rostrum is for its whole length eroded to be double-rimmed.

The first and second pleopods of *A. scruposa* were figured by GUINOT and those of *A. scutata* by GARTH. In a male at hand from Tosa Bay, which is identified with *A. scruposa*, the first and second pleopods excellently agree with the figures given by the

French author. The first pleopod is strongly compressed at its distal portion and the second with a spinule at the median junction is slender throughout the length along the whip, while the first pleopod of the new species is not strongly compressed and seems to be generally similar to the figure of *A. scutata* given by the American author. The second pleopod of the new species is different from those of both species in having no spinule at the median junction, from that of the Indo-West Pacific species in having the stouter whip, and from that of the East Pacific species in having the longer whip.

Literature

- ALCOCK, A., 1895. Materials for a carcinological fauna of India. No. 1. The Brachyura Oxyrhyncha. *J. Asiat. Soc. Bengal*, **64**: 157-291, pls. 3-5.
- EDMONDSON, C. H., 1951. Some Central Pacific crustaceans. *Occ. Pap. Bernice P. Bishop Mus.*, **20**: 183-243.
- GARTH, J. S., 1958. Brachyura of the Pacific coast of America. Oxyrhyncha. *Allan Hancock Pacif. Exped.*, **21**: i-xii+1-854.
- GUINOT, D., 1966, 1967. Recherches préliminaires sur les groupements naturels chez les Crustacés Décapodes Brachyours. I. Les affinités des genres *Aethra*, *Osachila*, *Hepatus*, *Hepatella* et *Actaeomorpha*. *Bull. Mus. Hist. nat. Paris*, (2), **38**: 744-762, 828-845.
- RATHBUN, M. J., 1925. The spider crabs of America. *Bull. U. S. Natn. Mus.*, **129**: i-xx+1-613, pls. 1-283.
- SAKAI, T., 1938. Studies on the Crabs of Japan. III. Brachygnatha, Oxyrhyncha (pp.193-364, pls. 20-41). Tokyo.

Explanation of Plate 1

Figs. 1–4. *Aethra seychellensis* sp. nov., holotype, ♂. Dorsal (Fig. 1), ventral (Fig. 2), lateral (Fig. 3), and frontal (Fig. 4) views.



