

Aethra edentata Edmondson, 1951 (Crustacea, Decapoda, Brachyura,
Parthenopidae), New Records for the Izu-Mariana Arch

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Abstract The rare parthenopid crab, *Aethra edentata* Edmondson, 1951, previously known only from Hawaii, is reported from the Izu-Mariana Arch (Chichi-jima Island in the Ogasawara Islands, Pagan and Guam in the Mariana Islands) for the first time. This species is differentiated from the other three species of the genus by its smaller adult size, unarmed ventral margin of the chela, and relatively long front which is deflexed downwards.

Key words: Crustacea, Decapoda, Parthenopidae, *Aethra*, new species, Izu-Mariana Arch.

The Indo-Pacific parthenopid genus *Aethra* Leach, 1816, is currently represented by four species, viz. *A. scruposa* (Linnaeus, 1764) (type species by monotypy) widely distributed in the whole Indo-West Pacific, *A. scutata* Smith, 1869, from the East Pacific, *A. edentata* Edmondson, 1951, from Hawaii in the Central Pacific, and *A. seychellensis* Takeda, 1975, from the Seychelles in the western Indian Ocean.

The best known and most widely distributed species is *A. scruposa*, which is the only *Aethra* species known from Japan (Sakai, 1976). Recently, the second author obtained an interesting parthenopid crab from the Ogasawara Islands which appeared to be *A. edentata*, a species known previously only from Hawaii. Comparison with the type material by the first author confirmed this supposition. Then, the second author also had a chance to examine three additional specimens from the Mariana Islands during his short stay at the University of Guam Marine Laboratory through the courtesy of Dr. G. Pauley. The present note serves to record *A. edentata* from Japan and the Mariana Islands for the first time since the original description.

Measurements are of the carapace width and length respectively unless stated. Specimens examined are deposited in the National Science Museum, Tokyo (NSMT), Bernice P. Bishop Museum, Honolulu (BPBM), and the University of Guam Marine Laboratory, Guam (UGML).

Family Parthenopidae

Aethra edentata Edmondson, 1951

[New Japanese name: Hime-menko-hishigani]

(Fig. 1)

Aethra edentata Edmondson, 1951: 214, figs. 19–20. — Eldredge, 1967: 14.

Material examined. Hawaii—Southwest coast of Oahu, 40–350 feet depth, 1 ♀, holotype, 30.0 by 19.6 mm, BPBM 5561a, 1 ♂, paratype, 26.8 by 18.2 mm, BPBM 5561b, coll. 8.viii.1949; 1 ♀, 50.0 by 32.5 mm, BPBM 1979.384, coll. J. Earle; Oahu-Makua, 80 feet depth, 1 ♂, ca. 37.8 by 23.4 mm, right side of carapace broken, BPBM S7045, coll. Hickam Sea Lancers, 4.vii.1964; Off Waikiki, Oahu, 10 fathoms depth, 1 ♀, 45.5 by 30.3 mm, BPBM 6996, coll. D. P. Fellows, 12.ix.1963; Off Ewa Beach, Oahu, 1 ♂, 22.7 by 15.7 mm, BPBM 7051, coll. 30.v.1965.

Ogasawara Islands—Futami Bay, Chichi-jima I., 1 ♀, 49.1 by 29.4 mm, NSMT, coll. Ogasawara Fisheries Center.

Mariana Islands—Pagan, coral rubble, 10 m depth, 1 ♂, ca. 34 mm breadth of carapace (cb), UGML, coll. P. Schupp, 26.v.1992; Guam, Hospital Point, 42 m depth on gorgonian, 1 ♂, ca. 35 mm cb, UGML, coll. H. T. Conley, 9.viii.1992; South of Orote Peninsula, among rocks, 50 feet depth, 1 ♂, ca. 32 mm cb, coll. H. T. Conley, 20.xi.1994.

Remarks. Edmondson (1951) described *Aethra edentata* on a pair of specimens from Hawaii. Both specimens, although relatively small, are already adult. Edmondson (1951: 216) noted that *A. edentata* differed from *A. scruposa* and *A. scutata* in “...the complete absence of dentition on the lower border of the palm of the cheliped. Also the rostrum appears to be more pronounced in the Hawaiian specimens.”

The Bishop Museum has a good series of specimens of *A. edentata*, and the species is not as rare as the literature would suggest. These specimens vary in size and show some variation. The ventral margins of the chela (including the pollex) are finely serrated and sometimes quite uneven, but never with well defined teeth. The shape of the frontal margin (when viewed dorsally) varies from triangular to subtruncate. The front is relatively longer than that of *A. scruposa* and *A. scutata*, but in *A. edentata*, it is also distinctly deflexed downwards. Otherwise, the specimens agree well with the excellent original description.

Both *A. scruposa* and *A. scutata* are much larger species, with carapace widths easily exceeding 60 mm (A. Milne Edwards, 1878; Rathbun, 1925; Garth, 1958). Small specimens of these two species less than 30 mm carapace width which have been reported or we have examined are still juveniles or immature.

Aethra seychellensis is known only by the sole type specimen, 57 mm carapace width, which is preserved in the National Science Museum, Tokyo. It is rather close to *A. scruposa* in its general appearance including the armature of the chela, but, as

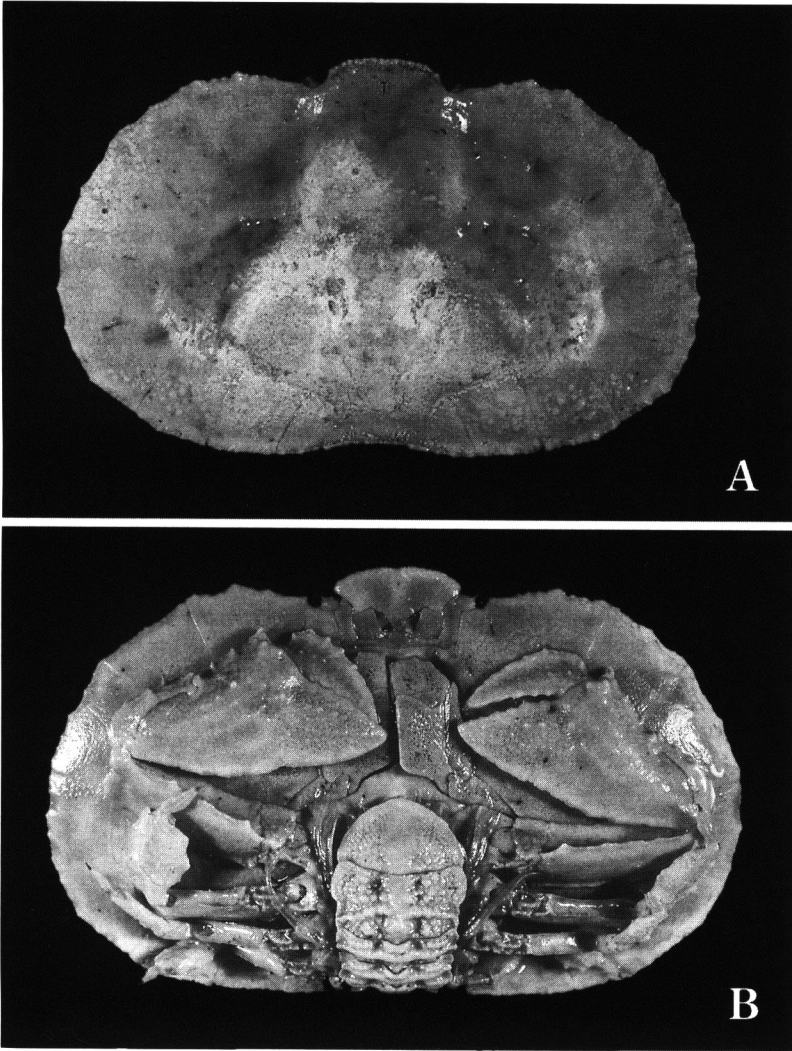


Fig. 1. *Aethra edentata* Edmondson, ♀ (49.1 by 29.4 mm, NSMT) from the Ogasawara Islands. Dorsal (A) and ventral (B) views.

rightly noted in the original description, readily distinguished from the latter by having the suberect plate on the gastric region, the upturned posterolateral margin of the carapace, and the simple sculpture of the rostrum.

Distribution. *Aethra edentata* has previously been known only from Hawaii. The present records from the Izu-Mariana Arc (Chichi-jima, Pagan and Guam) considerably extended its range westwards.

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