

## Note on *Cryptodromiopsis tridens* (Brachyura, Dromiidae)<sup>1</sup>

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THE SPONGE CRAB *Cryptodromiopsis tridens* was originally described by Borradaile (1906) from Male and Minikoi Atolls in the Maldive Islands. [Borradaile's (1903) review of the genera of Dromiidae created a *nomen nudum* for this species by only mentioning the species as new.] Ihle (1913) provided a list of known species in the family by reporting Borradaile's species. Edmondson (1922) made the second record of the species, which consisted of five specimens from Waikiki, Oahu. Ward (1934) reported one male from Christmas Island in the Indian Ocean, and Buitendijk recorded Ward's specimen again in 1950. A total of 61 additional specimens have been examined in this report.

A search for additional specimens was carried out. Three specimens are in the National Museum, Singapore, and three in the Smithsonian Institution. Holthuis (personal communication) knew of no other specimens. His 1953 work does not list the species; however, USNM 106565 from Ifaluk was identified by him at a later date. Further correspondence with the British Museum (Natural History), Cambridge Museum, Museum National d'Histoire Naturelle, Paris, and the Australian Museum yielded no additional specimens. The type specimen has apparently been lost.

Little descriptive information is added to that of Borradaile's (1906) original description. The carapace surface is smooth (Figure 1). No lines divide the regions. The carapace is oval, being wider than long. The mean carapace width (53 specimens measured) is 7.69 mm, the range 4–10.5 mm, and the standard deviation 1.568. The mean carapace length is 6.23 mm, the range 3–9 mm, and

the standard deviation 1.248. The smooth boss in each cardiac region near the postero-lateral border is rounded and, as Edmondson (1922) pointed out for the Hawaiian specimens, oriented more at an anterior–posterior axis than at the branchial region as originally illustrated by Borradaile (1906); however, some have a slight elongation toward the branchial region. The front is composed of three sharp spines, two lateral and one medial at a lower level, all about the same length. There are small spines at the upper and lower inner orbital angle and the outer orbital angle. The anterolateral border has two spines; the anterior spine is the larger. The legs are ornamented with long setae at the flattened angles. On the cheliped two spines are present at the distal end of the carpus, and a medial ridge is also present on the carpus. The tips of the chelae are small and white. The last two pairs of walking legs are weakly chelate. The body color alive and preserved is evenly light brown with white bosses.

### MATERIAL EXAMINED

BPBM 568, 1 male, Waikiki, Oahu; BPBM 569, 1 male, Waikiki, Oahu, June 1921; BPBM 570, 1 male, 1 female, locality and date unknown; BPBM 715, 2 males, Waikiki, Oahu; BPBM 3170, 4 males, 6 females, Kahala, Oahu, 1930; BPBM 3277, 1 male, Kaaawa, Oahu, December 1929; BPBM 3278, 1 female, Waimea, Oahu, June 1923; BPBM 3543, 1 female, Waimanalo, Oahu, June 1931; BPBM 3544, 1 male, 1 female, Kahala, Oahu, 1931; BPBM 3622, 1 female, Oahu, 1932; BPBM 3688, 1 male, 1 female, Black Point, Oahu, November 1933; BPBM 3767, 1 male, Maili Point, Oahu, June 1934; BPBM 3841, 7 males, 2 females, Black Point, Oahu, July 1934; BPBM 4051, 2 males, Kawela Bay, Oahu, July 1935; BPBM 4239, 2 males, Barber's Point, Oahu, September 1936; BPBM

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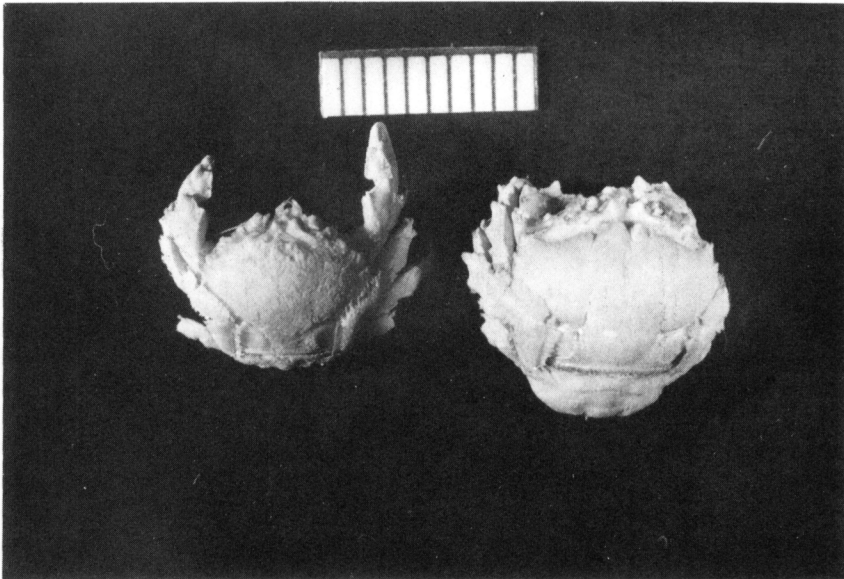


FIGURE 1. *Cryptodromiopsis tridens* Borradaile, male at left, female at right; measurement divisions 1 mm each.

4292, 1 male, Black Point, Oahu, January 1937; BPBM 4313, 1 male, Kawela Bay, Oahu, July 1937; BPBM 4400, 2 males, 1 female, Maili Point, Oahu, December 1937; BPBM 4581, 1 male, Midway Island, September 1941; BPBM 5097, 1 female, Waikiki, Oahu, January 1945; BPBM 5350, 1 male, Waikiki, Oahu, May 1948; BPBM 6823, 1 female, Hanamaula Bay, Kauai, September 1959; Hawaii Institute of Marine Biology, 2 males, 2 females, Oahu; Department of Zoology, University of Hawaii, 1 male, no locality; LGE no. 138, 1 male, Waikiki, Oahu, 12 September 1963; 1 female, between Captain Cook and Kailua, Hawaii, 23 August 1964; USNM 48963, 1 male, 1 female, Pukoo, Molokai, 1902?, identified by M. J. Rathbun; USNM 106565, 1 male, Ella, Ifaluk, 26 October 1953, identified by L. Holthuis; Singapore National Museum, Ward specimen, Christmas Island; Singapore National Museum, no. 106, Cocos Keeling, 1941.

#### Distribution

Oahu, Kauai, Molokai, Hawaii, Hawaiian Islands; Midway Island; Ifaluk Atoll; Christmas Island (Ward 1934); Cocos Keeling;

Male and Minikoi Atolls, Maldives Islands (Borradaile 1906).

#### Associates

Characteristically sponge crabs carry sponges; however, the majority of *Cryptodromiopsis tridens* carry ascidians belonging to the family Didemnidae. Containers with a number of specimens had no associates, and some even had more associates than crab specimens. Of the associates recorded, 70 percent were didemnid ascidians, primarily species of *Didemnum*. (The didemnid colonies have an average width of 11.13 mm and length of 7.86 mm.) The remaining associates consisted of 3 percent other ascidians and 27 percent various sponge species. Edmondson (1922, Pl. II-A) shows a didemnid rather than a sponge. Neither Borradaile's (1906) nor Ward's (1934) records report the associates found with their specimens.

#### ACKNOWLEDGMENT

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bridge Museum, Museum National d'Histoire Naturelle, and the Australian Museum. Many thanks are also extended to D. Devaney, B. P. Bishop Museum for the loan of the specimens.

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