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Extension of the Range of *Holothuria zacae*, Deichmann 1937

In October 1970, 20 unusual holothurians were found off Ship Rock, Santa Catalina Island, California (33°27′48″N; 118°29′26″W) on a shelly debris bottom, at a depth of 30 meters. One specimen was sent to the Smithsonian Institution and it was identified as *Holothuria zacae* (Deichmann 1937), a species previously known to range from Cedros and Guadalupe Islands off Baja California south to the Galapagos Islands, and into the Gulf of California.

The Panamic region of the west coast of North America was explored extensively for shallow water holothurians during the Hancock Expeditions of 1932–1939 and 1944–1954 (Deichmann 1958). A search of these reports and other available literature and collections leads us to believe that the Ship Rock population is the only one known from north of Guadalupe Island. The locality data from the Hancock Expeditions suggest a rather disjunct distribution of *H. zacae*, hence the occurrence of this species so far north of its known range may be unusual.

Additionally, Pawson (pers. comm.) has suggested that since the genus is known to have a pelagic larva, this is probably an isolated population at the northern extreme of the range and that it has merely escaped detection until recently.

The physical characteristics of the Ship Rock forms comply with the "forma

Holothuria zacae, adult. 90′ of water, base of Ship Rock, Santa Catalina Island.

iota'' of *H. zacae* typical of the Baja California area (Pawson, pers. comm.). A representative individual (Fig. 1) was 40 cm long and 18 cm in circumference. Its basic coloration is a creamy background with two widely separated rows of dark brown papillae, each with a green tip. The rest of the dorsal surface is covered with closely spaced, lighter brown, warty projections. The numerous podia are green and distributed abundantly along the ventral surface. When disturbed, only a slight contraction of the body wall is exhibited and there is no evidence of evisceration.

Another large holothurian that occurs at Catalina, *Parastichopus parvimensis* (Clark 1913), is generally smaller, caramel-brown in color, has fewer dorsal papillae and fewer ventral podia than *H. zacae*. *P. parvimensis* has a great capacity for contraction and readily eviscerates when handled roughly.

More recent observations (March–May 1978) of the Ship Rock *H. zacae* population revealed only five individuals found exclusively on a shelly debris, around rocks, at depths of 25 to 35 meters. Some cursory investigations have been made for other populations in the southern California bight without success.

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