

**FIRST REPORT OF *PERICLIMENES YUCATANICUS* (IVES)
(DECAPODA, PALAEMONIDAE) IN ASSOCIATION WITH A
CORALLIMORPHARIAN ANEMONE**

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The spotted cleaner shrimp, *Periclimenes yucatanicus* (Ives), is known to associate with 3 species of anemones in the Order Actiniaria: *Bartholomea annulata* (Lesueur) (Aiptasiidae), *Condylactis gigantea* (Weinland) (Actiniidae), and *Lebrunia danae* (Duchassaing & Michelotti) (Aliciidae) (Chace, 1972; Limbaugh, Pederson & Chace, 1961; Mahnken, 1972). This shrimp was observed and photographed in association with solitary specimens of *Rhodactis sanctithomae* (Duchassaing & Michelotti) (Corallimorpharia, Actinodiscidae) occurring along the 15 m depth contour on the eastern wall of the Salt River Submarine Canyon, St. Croix, U.S. Virgin Islands, 15 to 26 September 1979; shrimp were not observed with this host when the latter occurred in groups. The wall possessed a 15° to 20° slope and was covered by scattered rock and coral rubble. No shrimp have previously been reported to associate with this anemone. Only one specimen of *R. sanctithomae* was found on 28 April 1981 in the area of the east wall which had been examined in 1979. Two *P. yucatanicus* were associated with this anemone. The anemone was in the same location as the specimen photographed 19 months before, and appeared (size, shape, and associated budding small anemones) to be the same specimen. One specimen of *P. yucatanicus* was collected from this anemone in a plastic bag, preserved in 70% ethanol, and

deposited in the U.S. National Museum Crustacean Collection (USNM 184663). A second specimen of the shrimp was allowed to remain in the anemone.

This apparently unusual association cannot be explained by lack of the possibly more favorable hosts (all 3 previously reported host anemones were present), rarity of potential hosts (*B. annulata* was much more abundant than *R. sanctithomae*), nor overcrowding or associate saturation of the possibly more favorable hosts (*P. yucatanicus* and *P. pedersoni* Chace did not occur on all of the *B. annulata* present). The association was not rare in the Salt River Canyon, but was not noted in St. Thomas by Mahnken (1972) and did not occur in a study of cleaner organisms in Puerto Rico (Williams & Williams, 1978). Subsequent observation in southwestern Puerto Rico by the present authors have failed to confirm the occurrence of this association.

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