

Periclimenes colemani sp. nov., a new shrimp
associate of a rare sea urchin from Heron
Island, Queensland (Decapoda Natantia,
Pontoniinae)

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Figures 1-8.

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SUMMARY

Periclimenes colemani, a new species of pontoniinid shrimp, is described and illustrated. This species was found at Heron Island on the Australian Great Barrier Reef. It lives in pairs on the test of the sea urchin *Asthenosoma intermedium* H. L. Clark. The new species is considered to occupy a rather isolated systematic position, most closely related to another echinoid associate, *P. hirsutus* Bruce. It is also remarkable for its cryptic white, red spotted colour pattern. The associations between Indo-West Pacific *Periclimenes* spp. and echinoids are briefly reviewed.

INTRODUCTION

The association of echinoderms with many species of the large pontoniinid genus *Periclimenes* Costa, has been well established for many years but relatively few species have been found to occur in associations with echinoids. The first species to be reported as an echinoid associate was *Periclimenes maldivensis* Bruce, by Borradaile, (1915, as *P. (Cristiger) brocki*). Subsequently, Balss (1913, 1914) described *P. hertwigi*, which was also later recorded by Kubo (1940, as *P. gracilirostris*), a deep water species, that was found between the spines of an echinothuroid urchin. More recently several species have been reported from shallow water mainly in association with diadematid urchins, but also with a temnopleurid echinoid (Bruce, in press).

From Australian waters, only two species have so far been recorded. *Periclimenes hertwigi* Balss has been found on the echinothuroid *Areosoma thetidis* (H. L. Clark) in deep water off Mooloolaba, Queensland (Bruce, 1972), and *Periclimenes zanzibaricus* Bruce, has also been found on the diadematid urchin *Centrostephanus tenuispinus* (Clark) from Geraldton, Western Australia (Bruce, 1973). The discovery of a further species of echinoid associate is also of particular interest as the association is with a "venomous" urchin of the family Echinothuriidae.