

Biodiversity Record: New Singapore record of the superb coral shrimp, *Coralliocaris superba*

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Subject: Superb coral shrimp, *Coralliocaris superba* (Crustacea: Decapoda: Caridea: Palaemonidae).

Subject identified by: Navaraj Rajendran and Zeehan Jaafar.

Location, date and time: Singapore Strait at Sister's Island Marine Park, 21 August 2023; 1500–1600 hrs.

Habitat: Marine. Fringing coral reef with sand-silt substrate. Subject was found on a live *Acropora* coral at a depth of about 3 m.

Observer: Navaraj Rajendran. Observation was conducted using SCUBA and subject photographed with an Olympus TG-5 camera.

Observation: One individual (Figs. 1, 2) of approximately 12 mm total length was observed among the branches of a live *Acropora* sp. colony that had been transplanted onto a metal frame. The shrimp exhibited high avoidance behaviour, moving quickly into the deeper recesses of the coral colony while the photographs were taken. Within the same coral colony, pairs of the fish, *Gobiodon histrio*, the crab, *Tetralia nigrolineata*, and the shrimp, *Coralliocaris graminea*, were also present. No conflict between *Coralliocaris superba* and other coral-associated organisms within the coral was observed.



Fig. 1. Lateral view of *Coralliocaris superba*, in-situ (Photograph by: Navaraj Rajendran).

Remarks: The genus *Coralliocaris* Stimpson (1860) comprises eleven species of commensal shrimps that inhabit scleractinian corals in the tropical Indo-Pacific region (Mitsuhashi & Takeda, 2008; Li & Poupin, 2012). Of these, only *Coralliocaris graminea* was known to occur in Singapore (Anker & De Grave, 2016). This report, based on in-situ images, adds *Coralliocaris superba* to the Singapore fauna. *Coralliocaris superba* is widely distributed in the Indo-Pacific, from the Red Sea to French Polynesia (Bruce, 1981, 1993; Li, 1997; Poupin, 1998; De Grave, 2000), therefore, the presence of this species in the waters of Singapore is not unexpected.

Coralliocaris superba can readily be identified from its congeners by the characteristic white carapace, pleon and eyestalks and the golden-brown pereopods and tail fan with small scattered yellow and black spots (Figs. 1, 2; see Humann & De Loach, 2010). This specimen appears to have an unusually extensive speckled-brown colouration extending to the anterior portion of the third pleonite. In specimens from other locations, however, this colouration appears to terminate at the fourth or fifth pleonite (see CalPhotos, 2012; LazyDiving, n.d.; Reeflex, 2020). Some species of *Coralliocaris* (e.g., *Coralliocaris graminea*) possess enlarged chelae that allow the production of clicking sounds (Patton, 1994), but *Coralliocaris superba* does not appear to have the morphology to produce such sounds (Bruce, 1969). This species is an obligate associate of several species of *Acropora* (see Patton, 1994; Humann & De Loach, 2010).



Fig. 2. Dorsal-rear view of *Coralliocaris superba* (Photograph by: Navaraj Rajendran).

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