Ancylocaris brevicarpalis Schenkel, 1902

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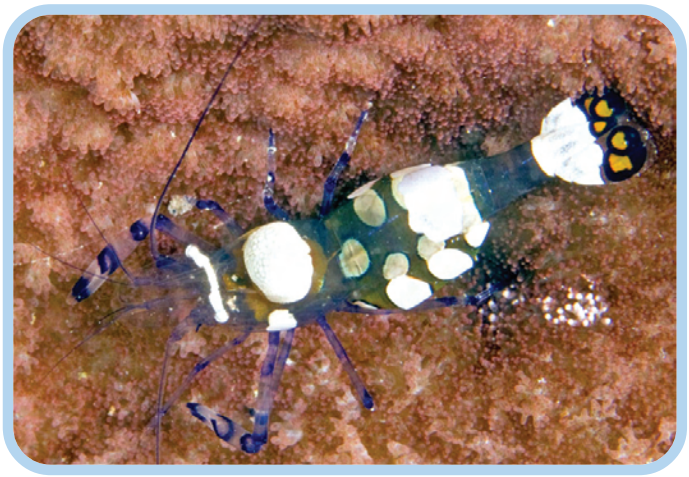
IDENTIFICATION

Order	:	**Decapoda**
Family	:	**Palaemonidae**
Common/FAO Name (English)	:	**Glass anemone shrimp**

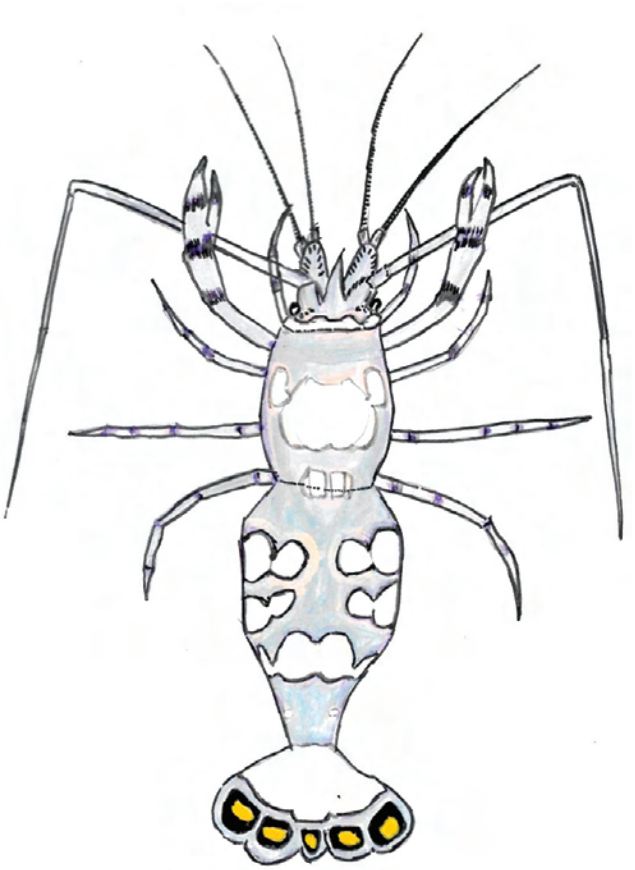


Local names: Not available

MORPHOLOGICAL DESCRIPTION

Body is almost transparent, with some white spots over carapace and tail, and five orange spots outlined in black over the caudal fin. Since the entire body is transparent it provides a clear view of the internal organs like the hepatopancreas, central nervous system and alimentary system. The colour of hepatopancreas keeps changing with the status of nourishment and gonadal maturation. There is violet colouration at the joints on the legs and 5 spots on the uropod and telson, which are typical to this shrimp. Males are larger than females and have more white spots.

Source of image : www.casc.it



PROFILE

GEOGRAPHICAL DISTRIBUTION

This species is distributed in the tropical realms of the Indian and the Pacific oceans, from Mozambique to Japan, Australia and Papua New Guinea. In India, they have been reported from the south-east coast.

HABITAT AND BIOLOGY

Ancylocaris brevicarpalis lives in association with sea anemones and sea cucumbers, hence the name anemone shrimp. The anemone secretes a mucous which gets coated on the shrimp's body thereby preventing it from getting stung by the anemone. The shrimp also takes on the colouration of its host anemone or sea cucumber. During molting the shrimp hides from its host and once the exoskeleton forms it moves to the host to cover itself with the mucous again. In the absence of anemones and sea cucumbers as hosts, it lives symbiotically with mushroom corals, bubble corals and jelly fish. The anemone shrimp is found in coastal waters from 1 to 27 m in depth.

It is an omnivore, eating detritus and meaty bits of seafood. In the absence of food in its vicinity, the shrimps venture out in search of food or else, it eats the food of the host anemone. Members of the order Decapoda are mostly gonochorist. Their mating behaviour commonly reveals precopulatory courtship ritual (through olfactory and tactile cues), with usually indirect sperm transfer.

PRODUCTION SYSTEMS

BREEDING IN CAPTIVE CONDITIONS

Information not available

LARVAL REARING

Larval development of *Ancylocaris brevicarpalis* with wild captured ovigerous females was studied in University of Ryukyus, Japan. A total of 300 larvae were observed to hatch from one female. Nine zoea stages and one decapodid stage was identified before they moulted to the first juvenile stage. The decapodid stage was reached in 18 days and first juvenile in 20 days at water temperatures of 27.4-28 °C. Newly hatched *Artemia* nauplii were fed to the larvae and the first juvenile stages.

FOOD AND FEEDING

Information not available

GROWTH RATE

Information not available

DISEASES AND CONTROL MEASURES

Information not available

PRODUCTION, MARKET AND TRADE

PRODUCTION

Information not available

MARKET AND TRADE

It is the most popular anemone shrimp species in the marine ornamental fish industry. Hence trade prospects are very high and they are valued at ₹ 1000-2000/individual.

CHALLENGES TO MARICULTURE

The major researchable issues related to *Ancylocaris brevicarpalis* are to develop protocols for domestication and development of broodstock and its captive breeding. Larval rearing protocols also need to be developed in India.

FUTURE PROSPECTS

Domestication, captive breeding and hatchery technology establishment for mass scale seed production of this species will augment the trade of this high-valued ornamental shrimp, thereby providing the Indian fish farmer with better economic prospects.

SUGGESTED READING

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