

## Occurrence of Japanese sponge crab *Lauridromia dehaani*



Adult *Lauridromia dehaani* collected from Sakthikulangara Fisheries Harbour

In recent times, good numbers of Japanese sponge crab *Lauridromia dehaani* were landed at Sakthikulangara Fisheries Harbour, Kollam. Samples were procured from by-catch landings of multiday trawlers which operated at a depth of around 40 m, off the southwest coast of Kerala. This sponge crab is usually found in the landings along with puffer fish, *Lagocephalus inermis*. The estimated landings of the crab in multiday trawls operated from Sakthikulangara Fisheries Harbour during September 2022, was 20 kg. One female specimen was deposited in the Designated National Repository (DNR) of ICAR-CMFRI with accession number ED.5.1.2.1.1. The species was studied in detail with samples collected during January–March 2023 period which is reported below.

*L. dehaani* belongs to the suborder Pleocyemata and the family Dromiidae. The species is distributed in the Indo-west Pacific region and in India

distribution is along both east and west coasts. Crab is known to camouflage itself by carrying something above it such as a piece of sponge, a shell of similar dimensions or leaves with a clear preference for sponges (Morton, 1989) and hence are commonly known as sponge crabs.

The carapace of the crab is broader than wide and blackish brown in colour. The dorsal, ventral surfaces of the carapace in both male and female crabs, chelate and ambulatory legs as well as the margins of the pleon are covered with tufts of soft silky setae. The tips of the chelate legs are very noticeable as they are in brilliant pink colour. The last two pairs of ambulatory legs are comparatively smaller and placed one above the other. Carapace bears four antero-lateral teeth; the first three are placed at equidistance, whereas the last one is more prominent and widely separated. The male crabs were in a size range of 70–79 mm carapace

width (CW), 59–69 mm carapace length (CL) and total weight (TW) between 72–98 g each. Female crab sizes varied between 59–78 mm CW, 50–68 mm CL with TW between 30–99 g each. All the crabs were matured and among the females, two were in berried condition. The eggs are bright orangish-yellow in colour with an average size of  $576 \pm 0.05\mu$ . To confirm its genetic identity gene sequences captured from the mitochondrial COI gene were used. Possibility of antimicrobial peptides from the crab's haemolymph, which is functionally important against pathogens has been reported (Anbuchejian *et al.*, 2018). Presently the species has no consumer preference and belongs to the non-edible category. However due to its reported content of valuable bio-compounds, it may become a targeted fishery resource in the future.

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