

Moulting anomalies in Scalloped spiny lobster

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Scalloped spiny lobster, *Panulirus homarus* (Linnaeus, 1758) is a commonly available and commercially important spiny lobster species along Gulf of Mannar, on the southeast coast of India. Specimens caught in the bottom set gillnet fishery were collected from Manapad fish landing centre, Thoothukudi District and after 30 days of holding period, a lobster (body length 145 mm; weight 98 g) with anomalies in the carapace and right antenna was recorded. The lobster maintained along with other healthy lobsters and fed *ad libitum* with pellet diet (Protein 40% and Lipid 8%) showed normal biological activity including feeding until it succumbed after 28 days of observation period. Another lobster (body length 92 mm; weight 24.2 g) collected from model sea cage farm at Sippikulam Sea, Thoothukudi and reared in the marine research aquarium, showed similar abnormality after few days of acclimation similar to the earlier lobster. This lobster succumbed to predation by another lobster.

In both the specimens, lower end of carapace shows deformity and completely exposing the gills (i.e., arthrobranchs) on both sides. The gills were initially pale yellow later turns to dusty brown in colour. The carapace and abdomen joint region was pliable as the shell uncovered in the body. In addition the first lobster showed a deep indentation at the middle point of the right side antenna and few twists at the distal end towards the tip. It was reported that such deformities may be associated to problems with chitin production

and shedding of exuvia. The role of nutrient deficiency or culpable shedding of exuvia due to stress or infection is also to be explored further.



Fig.1. Dorsal view of spiny lobster showing deformed antenna and exposed gill region