

ON THE OCCURRENCE OF DIFFERENT STAGES OF
SPINY LOBSTERS IN KAKINADA REGION

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ABSTRACT

The occurrence of puerulus, juvenile and adult stages of spiny lobsters of the genus *Panulirus* is reported from the Bay and estuary of Kakinada region. The occurrence of juvenile of *P. homarus* up to 132 mm length in the Godavary estuary and the pueruli of *P. polyphagus* in this region are new records.

Juveniles of *Panulirus homarus* were encountered in the dragnet catches of B. V. Palem (Lat. 16° 45-55' N, long 82° 15-21' E) on various occasions during February to May 1981. The carapace length of the specimens ranged from 23 mm to 52 mm and total length from 61 to 132 mm. Adult specimens, 2 males and 2 females, were also recorded from the trawl catches off Bhairavapalem and Kakinada. The carapace length and total length ranged from 75 mm to 87 mm and 198 mm to 226 mm respectively.

On 21-1-81 a school of pueruli of *P. polyphagus* were also recorded in the shore-sea catches at Uppada. (Lat. 17° 22' E, long 82° 51' E). Among 17 specimens collected, the carapace length varied from 9 mm to 10.5 mm and total length 23 mm to 25 mm; breadth of carapace from 5.1 to 5.5 mm; length of antennule (complete) from 8.5 to 9 mm and length of antennae (complete) 8.4 to 8.8 cm.

In November 1978, one adult (male) of *P. polyphagus* was recorded from the gillnet catches. The carapace length and total length measured 93.5 mm and 243 mm respectively.

The pueruli and juveniles of *P. homarus* and *P. polyphagus* have been reported from the estuaries and backwaters on West Coast by George (1968) Tampi and George (1975) Kathirvel (1977), Balasubrahmanyam (1962), Rao and Kathirvel (1971) and Thomas (1975). Dutt and Ravindranath (1974) and Girijavallabhan and Deva Raj (1981) recorded pueruli of *P. polyphagus* from Krishna estuary and off Madras coast, respectively.

Although juveniles and pueruli of *Panulirus* have been encountered in estuaries and backwaters, the occurrence of juveniles with total lengths up to 132 mm is quite unusual. Kathirvel's (1977) specimens of pueruli and post-jueruli of *P. homarus* from the backwaters of Cochin ranged from 60 to 65 mm only. In comparison, the present specimens obtained from the Kakinada estuary are quite large and such large sizes of the species are recorded from backwaters for the first time. George (1968) observed that the juveniles of *P. homarus* prefer muddy bottom and turbid waters, a condition that prevails in the bay and estuary of Kakinada throughout the year (Ramasarma and Ganapathi 1971). The record of pueruli of *P. polyphagus* from the inshore waters is also interesting though they have been recorded earlier (Dutt and Ravindranath 1974) from the Krishna estuary.

The occurrence of pueruli and juveniles of the genus *Panulirus* in the bay and estuaries of Kakinada region suggests their migratory habits in search of food and suitable substratum during the summer months (February-May) when the physicochemical conditions of this region are probably favourable. The occurrence of these early stages in the inshore waters also reveals the possibility of the presence of lobster grounds in the nearby deeper areas of the region, although the number of adults obtained from the inshore region so far is very limited. Experimental fishing with suitable gear like lobster traps might help in exploring the resource.

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