

FISHERY AND SOME ASPECTS OF REPRODUCTIVE BIOLOGY OF THE SLIPPER LOBSTER (*THENUS ORIENTALIS*) IN SRI LANKA

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Until recent, slipper lobster *Thenus orientalis* (Lund, 1793) in Sri Lanka received little attention. With the opening up of the fisheries in northern and eastern coasts after the civil disturbances prevailed over 30 years and as the main spiny lobster fishery is depleting in other areas. There is an increasing pressure on *T. orientalis* from a subsistence fishery to export oriented fishery. The landings are mainly by-catch of bottom set gill nets and trawlers operating targeting shrimp and other demersal fishes. The objective of this study was to collect some basic scientific information related to reproductive biology such as size at first maturity and fecundity of *T. orientalis* that can be used for the management of this valuable resource. Berried females were regularly collected from Alpex Marine and P.N Fernando Company (pvt) Ltd at Handala and Negombo. Additionally, limited number of samples was collected from actual fisherman operating their bottom set gill nets in Negombo, Kalpitiya and Kalmunai areas. The resource shows its distribution up to a depth of 40m in soft sedimentary mud and sand. Reproductive studies suggest the onset of sexual maturity as 35 mm to 39 mm in carapace length. The annual sex ratio of males and females remained as 1:1.06. Size at 50 % maturity was observed at 93 mm in total length. The fecundity of 232 females ranging in size from 118 to 231 mm in total length showed a linear relationship. The results agree with the relationship as Fecundity (in thousand eggs) = $40.41 + 0.3133 \times TL$. A typical management issues exist as slipper lobsters are incidentally caught in bottom set nets and trawl nets used for harvesting shrimp and other demersal fishes.

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