

**PRELIMINARY STUDY ON MUD CRAB FISHERY IN
MANNAR DISTRICT**

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ABSTRACT

Mannar district situated along the West coast of Sri Lanka lies between North latitude 8.8667° to and East longitude 80.0667° was selected as the study site for the current investigation to evaluate the status of mud crab fishery. Mud crab fishery in Mannar is an important livelihood that providing number of employment. Capture species, carapace width, weight of the crabs, capture method, mangrove density and number of fisherman engage in fishing activity were recorded in order to find out the size distribution, harvest pattern of the mud crabs and the existing capture method in that area. The carapace length frequency pattern of *Scylla serrata* was drawn separately for both male and female of each destination. It shows the crabs with 13 cm-16 cm size influence the harvest and rarely consist with the sizes beyond 19 cm. Moreover the size distribution of crabs shows a vast variation but at the present, the size distribution of *Scylla serrata* shows a narrow range with the mean carapace width of 15.347 cm and the mean weight of the crab is 600.89 g. The trend shows the strong depletion of stocks while increasing the harvest. There is three conventional crab fishing methods used in harvesting from wild such as crab cage, net and manually with wooden stick within these, cages are preferred by the fishers as its give the high harvest. Data obtain during the study period shown there are two different species harvest despite *S.serrata* was preferred by the fisherman. Few environmental, social and ecological factors impeding production while the more rises the harvest. Seasonal changes influences the crab fishery as its change, higher exploitation of crab was in March and lowest in April. The ecological factors encourage the crab fishery towards the peak while the socio economic state acts as a barrier to develop the fishery furthermore, the ignorance of biology and development planning of crab fishery and culture is a surging issue that leads a steady loss of wild stock. It predicts, in a short periods of time there will be possible depletion of mud crab, and in stressing the authority to take prompt measures to develop breeding technology to cater the crab stocks and regulation should target the crab fishery sector that yet practicing conventional type of fishery and reveal the guidance and importance of sustainable sectorial development of crab fishery and its resources.

Key words: Mud crab, Fishery, Depletion, Resources