

CATCH COMPOSITION OF SHRIMP TRAWL LANDING OFF THE COAST OF GURUNAGAR, JAFFNA

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Shrimp trawl fishery is one of the major fishing activities in Gurunagar fishing community. There are around 150 mechanized fishing boats actively engaged in shrimp trawling. The bycatch and discards are common and have detrimental effects on shrimp trawling due to their low selectivity. A portion of the catch is discarded from shrimp trawls for many reasons, including small size, damaged organism, lower market price and lack of space onboard. Besides, shrimp is a commercially valuable species brought to the landing site, and the remaining catches are discarded at sea. To date, there have been no detailed studies on bycatch estimation in shrimp trawling in Jaffna. This survey was carried out from six shrimp trawlers operated in coastal waters off Gurunagar, Jaffna, from January to December 2020 to assess the quantity and monthly variation of shrimp, commercial valuable bycatch and discards. The number of discards was quantified onboard before discarding to the sea. The average ratio of shrimp: bycatch was 8%:92%. The mean monthly total bycatch generated from shrimp trawling varied from 87.9% to 92.4%. The average shrimp: commercial bycatch: discards composition ratio was 8:23:69. Commercial bycatch ranged from 20% to 30% of a catch, with a comparatively higher amount of commercial bycatch in April and December. The mean monthly shrimp catch ranged from 300 to 570 kg/month. Mean monthly bycatch generated by shrimp trawling ranged from 4,425 to 6,150 kg/month and in different months with an overall average of $5,268.75 \pm 128.81$ ($n = 12$) kg/month. The obtained data will be an important tool for fishery management measures. Bycatch is unavoidable in shrimp trawling, and fishers will always be under pressure to reduce the bycatch. However, with responsible fishing, fishers can be educated to ensure the health of the marine environment and species diversity.

Keywords: Bycatch, Discards, Shrimp, Shrimp trawling, Total catch