



# CATCH COMPOSITION AND SEASONAL VARIATIONS OF SHRIMP TRAWL LANDINGS WITH NEW SPECIES RECORDS OFF GURUNAGAR COAST, NORTHERN SRI LANKA

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**Abstract:** The present study aimed to identify and assess the shrimp species diversity in the marine trawl fishery of Jaffna, Sri Lanka, where detailed investigations were lacking. The research was conducted through fortnightly field visit at Gurunagar coast from April 2022 to March 2023, to observe trawl catches. On each sampling day 20% of active trawlers were sampled and their total harvest and shrimp harvest was computed. The shrimp species were identified immediately after the landings. The results showed that shrimps constituted 58% of the trawler harvest, while the remaining catch comprised bycatches. Shrimp catch rates varied, with the highest and lowest rates in June (56.7 kg/trawler/day) and March (16.4 kg/trawler/day). A total of 10 shrimp species were identified, i.e., *Penaeus semisulcatus*, *Metapenaeopsis sirudulans*, *Trachypenaeus curvirostris*, *Penaeus monodon*, *Penaeus indicus*, *Penaeus japonicus*, *Metapenaeus monocerous*, *Penaeus latisulcatus*, *Parapenaeopsis uncta*, and *Parapenaeopsis maxillipedo*. Notably, four of these species, namely *Metapenaeopsis sirudulans*, *Trachypenaeus curvirostris*, *Parapenaeopsis uncta*, and *Parapenaeopsis maxillipedo*, were reported for the first time in the Jaffna. The dominant species was *Penaeus semisulcatus*, contributing 65% to total shrimp landings, followed by *Metapenaeopsis stirudulans* (16%), *Trachypenaeus curvirostris* (12%), *Penaeus monodon* (7%), and *Penaeus indicus* (1%). The remaining species were comparatively rare and seasonal. The results details catch composition and seasonal variations of shrimps for the first time and provide baseline information for fishery managers that will be important in formulating sustainable management and conservation efforts.

**Keywords:** Catch rates, New records, Shrimps, Species diversity, Trawl