

Present status of the coastal tuna fishery in eastern coast of Sri Lanka

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Abstract

Sri Lanka is one of the oldest and most important tuna producing nations in Indian Ocean. Tuna fishery is a major component of large pelagic fishery in the country and fishing activities carried out both in coastal and offshore ranges. Coastal tuna fishery plays an important role in east coast specially in Maleikadu, Kalmunae (*Eastern statistical zone) and Trincomalee (*Northeastern statistical zone). Catch, effort and biological data were collected in major landing sites from January to December 2005.

Coastal large pelagic fish production in the east coast was estimated as 11,273 tons (2005). Tuna species contributed to 45.5% (5,129 t) where *Thunnus albacares* (35.2%), *Katsuwonus pelamis* (36.4%) and *Euthynnus affinis* (26.2%) dominated. The fishing season is from March to August. The highest production was recorded in August (1,188 t) where as the lowest was in November (4 t). Two types of crafts are engaged in this fishery, 3.5 ton boats and Fiber Reinforced boats (FRP) with outboard engines. In both zones, 3.5 tones day boats are engaged in tuna fishing using 5" meshed gillnets as the major gear. However there is a seasonal longline fishery in Northwestern zone using FRP boats targeting for *T. albacares*. Monthly average CPUE was estimated in terms of catch/boat/day and catch/100 net pieces. Significantly high CPUE was observed in eastern zone for both types ($t=3.99$, $t=3.33$, $P>0.05$). The estimated CPUE for tuna longline fishery ranged from 78 - 663 kg/ boat/ day and 124 - 210 kg / 100 hooks. The length frequency analysis indicated three distinct modes (42.5, 52.5 and 62.5 cm) for *K. pelamis* and two modes (52.5 and 67.5) for *T. albacares* in gillnet fishery while a single mode (87.5 cm) for *T. albacares* in longline fishery.

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