

"Kotan del" fishery in southern Sri Lanka: A ring net fishery associated with floating objects

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The ring net fisheries associated with floating objects are reported from the marine fisheries of many parts of the world. All multi-day boats operating from Galle and Hikkaduwa fisheries harbours of southern Sri Lanka, are engaged in tuna long-lining and drift gillnetting and in these boats, fishermen carry ring nets to encircle fishes attracted to floating objects, i.e. flotsam, such as drift wood (trees), entangled bunches of rope discarded from ships etc. that they encounter on their way. This gear type is locally known as "Kotan dela."

The present study was carried out in Galle fisheries harbour from August 2007 to January 2008 to investigate "Kotan del" fishery. Seventy seven multi-day boats landed during the study period were observed to collect data on fishing area, mode of fishing, total catch and species composition. The boat owners were consulted to gather information on the cost of fishing operation and income derived from the landings.

Of the 77 boats observed, 23 multi-day boats were not engaged in purse seining (Kotan del fishery) so that the landings were essentially from longlines and drift gillnets. Fishermen in twenty one boats operated "Kotan del" and 33 boats were engaged in both "Kotan del" and longlines/drift gillnets. In "Kotan del" landings, the dominant fish species were *Decapterus russelli*, *Elagatis bipinnulata*, *Abalistes stellatus* and *Coryphaena hippurus* in contrast to landings of longline/drift gillnet boats, which were dominated by *Thunnus albacares*, and *Katsuwonus pelamis*. Catches from the boats that were involved in both the fishing methods, species caught in "Kotan del" were dominant. Non-parametric multi-dimensional scaling indicated that the species composition in the boats that both fishing methods were practiced, showed greater similarity with the "Kotan del" boats than longlines/drift gillnet boats.

Although tuna landings in longlines/drift gillnet boats are fetched higher prices, cost of operation (mainly fuel cost) brings down the net profit than that of from "Kotan del" boats. Due to high profit margins in "Kotan del" operations, there is a propensity to expand this fishery in southern Sri Lankan waters. During the study period, 46% - 84% of total monthly landings in Galle harbour were from "Kotan del" catches. As this fishery is still not reported in official fisheries statistics, there is a necessity to revise the existing fisheries statistics collection procedures. As it was observed that juveniles of *T. albacares* were caught in significant proportions by this fishing method, detailed investigation of this fishery is necessary for defining management strategies for offshore fisheries.