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ABSTRACTS



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Use of spatio-temporal data in reducing low value bycatch in trawl fisheries

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In Indian trawl fisheries, fishes brought for human consumption in fresh or processed form are termed as commercial landing and the rest brought to shore for fishmeal and fertilizers are called low valued bycatch (LVB). LVB is supplementing economical benefit to trawl operators, which is fetching a good amount in fish meal market and in 2011 the estimated value realised for LVB was about Rs. 72 crores from eight major trawl fishing centres in India. This demand is turning out to be a threat for marine fish production in the future, since LVB was found to be constituted by 247 species of fishes and shellfishes and most of them are juveniles of commercial fishes. The study conducted during 2008-2011 showed that the percentage of low valued bycatch from the trawlers in India increased from 21% (2008) to 23% (2011). The increase in trawl landing during the period was contributed entirely by the increase in LVB landing, whereas the edible part in the landing remained same. For seasonal and spatial closures, sufficient data on spatio-temporal distribution of the species is required. Central Marine Fisheries Research Institute has been collecting marine fisheries data in spatio-temporal platform from 2007 onwards and came out with very reliable information on the distribution of marine biota off Karnataka coast in terms of commercial fishes, juveniles and non-commercial fauna. With the study CMFRI could identify some of the fishing grounds and

the seasons in which the juvenile bycatch of the commercial species are high in percentage. The paper stresses the need for such studies with more specialized objectives and illustrates the utility of the spatio-temporal data collection in suggesting seasonal and spatial restrictions in fishing operations in tropical multispecies scenario.

Keywords: Bycatch reduction interventions, spatio-temporal data, low valued bycatch, trawl fisheries, conservation and management