

Outburst of FAD fishing following quota implementation: The case of Indian Ocean yellowfin

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Summary

Recent assessments of the Indian Ocean yellowfin tuna (*Thunnus albacares*) indicate that the stock has been overfished and subject to overfishing since 2014. As part of the rebuilding plan initiated in 2017, the Indian Ocean Tuna Commission (IOTC) has implemented an annual quota on high seas fisheries to reduce the catch of yellowfin to levels compatible with a stock recovery by 2024. The IOTC also set a limit of 350 for the number of buoys monitored by a purse seiner at any time as well as on the number of support vessels managing the network of fish aggregating devices (FADs). To comply with catch limit, purse seine fleets have sharply reduced the seasonal targeting of free-swimming schools of large yellowfin which contributed to about 38% of the yellowfin purse seine catch during 2012-2016. In 2018, fishing on schools associated with drifting floating objects (predominated by FADs) represented >95% of the catch of the Seychelles purse seine fleet. We review the information available from the Seychelles purse seine fishery to assess the recent changes in spatio-temporal distribution of the fleet and changes in catch and bycatch composition derived from port samples and observations at sea, respectively. In addition, we use a large data set of buoys satellite transmissions to analyze the fishermen strategies and tactics to optimize their now limited number of monitored FADs. We discuss the results and adverse impacts of the Indian Ocean yellowfin quota and recommend an impact assessment prior to the implementation of any major Conservation and Management Measure such as setting a total allowable catch for a stock.