

Monitoring of Spanish flagged purse seine fishery targeting tropical tuna in the Indian ocean: Timeline and history

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The Spanish tuna purse seine freezer fleet targeting tropical tuna in the Indian Ocean is one of the most important fleets in the world. The present study firstly describes the history and evolution of this fishery (including its current status, following the economic crisis and the upsurge of Somali piracy of this last decade), and secondly describes the effort of Spanish scientific institutions to collect data (including estimates of catch, effort, and length-frequency distributions by species) from distant fisheries. This monitoring has been carried out in collaboration with stakeholders and other regional scientific organizations since its origins in the early 1980s. During this period the monitoring have been adapted to the change in the fishery, improving both the scientific estimates of the exploited species, as well as our knowledge of the impact of the fishery on the ecosystem, which in turn has served to improve the management and sustainability of the fishery. Although, in general,

data quality has improved over time, there are periods with poor data quality. Currently, the priority is to eliminate possible biases from sampling at port. Finally, our general assessment of the adequacy of past and present monitoring systems, is that the current estimation system (called T3) is an important tool throughout the historical series to provide total tropical tuna catches, but in the new context of the TAC proposed for the yellowfin tuna, it is necessary to separate this scientific tool from others used for the flag state authorities to manage the TAC. © 2020 Elsevier Ltd

Indian ocean

Spanish purse seining

Timeline

Tropical tuna fisheries

biomonitoring

catch statistics

data quality

economic history

fishery management

stakeholder

sustainability

tuna fishery

Indian Ocean

Scombridae

Thunnus albacares