

Declining Catches of Skipjack in the Indian Ocean – Observations from the Maldives

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Summary

Skipjack stock in the Ocean is considered to be robust. They are believed to have high population turnover rates, year round spawning, short life span, high mortality and fast growth. Because of these reasons skipjack stock is believed to be resilient and not easily prone to overfishing. So far there has not been a formal assessment of skipjack in the Indian Ocean.

Skipjack is one the most important tuna species in the Indian Ocean. The species is fished by purse seining in the WIO, from pole-and-line in the Maldives and Minicoy, India, gillnetting in Sri Lanka and Oman. Prior 1980s skipjack catches were negligible with most been taken by the pole-and-line fishery of the Maldives. Catches increased rapidly following the introduction of industrial purse seining and subsequent developments of coastal fisheries of Maldives, Sri Lanka and Oman.

India Ocean catches show a rapid increase following the development of the purse seine fishery in 1984, but also by the developments of pole-and-line and gillnet fisheries of the coastal states. Overall catches reached a peaked in 2006 and have been declining consistently since then. Catches in 2006 were 620,000 tons but catches dropped rapidly to 440,000 tons in 2009 – a drop of nearly 40%.

Reported catches in the Maldivian pole-and-line fishery reached a peak of 138,000 tons in 2006 and dropped to 66,000 tons in 2009 – a massive drop of over 50%. In the Maldives the situation is of great concern as fishing is the livelihood of most of the communities in the outer atolls and country depend its export for needed foreign exchange.

There are three possible explanations for this decline in catches; first there appears to be a decline in nominal fishing effort. In the purse seine fishery this is due to Somali pirate activities making one of the productive fishing areas out of bounds since 2006. Some 07 purse seiners have relocated to Atlantic since 2006 dropping the number of active purse seiners operating in the Indian Ocean from around 45 to 30. In the Maldives declines in fishing effort have been in part related to high fuel prices making the current fleet of larger boats economically not viable, but also in large part due to the combined effects of poor fishing and sub-optimal availability of

livebait. A more plausible explanation however, may be declining abundance of skipjack in the core fishery areas due to over-exploitation of the stock.

In the Maldives two distinct size classes of skipjack are observed through out its long history of the pole-and-line fishing; small skipjack 40-50 cm and 60+ cm size class. These have two distinct local names, *mas* and *godhaa*. The medium size fish of 50-60 cm fish is under represented in Maldivian catches. It is believed when skipjack reach maturity, and for reasons not clear, they move away from the Maldives but return as large skipjack. Medium sized fish are taken in the gillnet fishery of Sri Lanka and in the purse seine fishery in the Western Indian Ocean. Limited tag recoveries tend to support the hypothesis that medium-sized skipjack move away from the Maldives area with the prevailing surface currents, but return to Maldives area to be caught as large skipjack in the Maldivian fishery.

In the recent years, abundance of the large skipjack in the Maldivian fishery has declined. This is supported from the observation of size sampling data which shows that proportion of the large skipjack represented in the samples have decreased. There is also a strong belief by the fishermen that abundance of the large skipjack has declined during the last 4-5 as indicated by an opinion survey conducted in 2009.

It is also likely that declining catch rates in the Indian Ocean may be related to environmental factors. Skipjack catches in the Maldives are affected by large scale events in the Indian Ocean related to El Nino and La Nina Conditions.

It is recommended that assessment of skipjack stock should now be a priority by Working Party.

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