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Reproductive Characters Observation and Gonadosomatic Index Estimation of Oilfish and Escolar in The Indian Ocean

Chinese Taipei

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Abstract	<p>Oilfish and escolar are the two bycatch species caught by longliner fishery in the Indian Ocean. There is limited biological information related these two species, especially in the estimation of reproductive parameters. Here, we provided the preliminary results related gonadal characteristics for the estimation of the reproductive parameters for oilfish and escolar in the Indian Ocean. For the basic biological information of the sample collection with two species, there were 268 specimens of oilfish and 716 specimens of escolar were collected from 2020 to 2022. And the ranges of the fork-length (FL) of the oilfish and escolar sample collection were from 51 to 145 cm and 44 to 148 cm, respectively. For the round weights (Rw) were measured 27 kg as maximum in oilfish and 36 kg as maximum in escolar. Also, the weight-length relationship of oilfish and escolar were estimated and listed bellowed. oilfish: $Rw = 1E-06 * FL^{3.3391}$ and escolar: $Rw = 3E-06 * FL^{3.2715}$. In order to understand the maturity of the oilfish and escolar in the Indian Ocean, the gonadosomatic index (GSI) values were estimated for these two species. Both the overall averages of GSI of females and males were under the value five (5.0) in these two species. Similar pattern of monthly GSI variation was observed in the females of both species, higher monthly GSI values were observed from July to the end of the years. For the further studies, we plan to increase the sample size and enlarge the coverage of sample location to explore the temporal and spatial distribution in the different maturity stages of oilfish and escolar in the Indian Ocean.</p>

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Recommendations

The delegation recommends that the SC10

- **Notes** that the estimations of reproductive biological index (GSI) of oilfish and escolar collected in the Indian Ocean were provided as preliminary information for the further research of oilfish and escolar.

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