

## Update on an ecological risk assessment for SIOFA teleosts

*Relates to agenda item: 7*

Working paper  Info paper

### Delegation of Australia

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#### Abstract

This paper updates the SIOFA SC on an ecological risk assessment (ERA) for SIOFA teleosts. This assessment applies Productivity-Susceptibility Analysis (PSA) and Sustainability Assessment for Fishing Effects (SAFE) tools to assess the vulnerability of teleosts to demersal trawl, midwater trawl, 'shallow trawl' (Saya de Malha bank fishery), demersal line and demersal gillnet gears in the SIOFA area. The species list was developed using catch records in the SIOFA databases and information from annual reports submitted by SIOFA Contracting Parties. The species list is incomplete due to the developmental nature of the SIOFA databases and associated issues, a number of which were discussed in the paper 'SIOFA species list' submitted to SERAWG1 and SC4. Fishing effort data were provided by most Contracting Parties for the 2012-2016 period; however, some effort data are missing. Species distribution data was sourced from [AquaMaps.org](https://www.aquamaps.org) and the 80-100% probability of occurrence layer was used. Life history attribute data was sourced from the CSIRO database that underpins the CSIRO ERA online tool and was available for most species. This updated assessment refines the PSA methodology and responds to issues discussed during SERAWG1 and SC4. Progress on some aspects has been limited due in part to the request for funding for this work as part of the SC's workplan not being supported by the Meeting of the Parties in 2019. The prioritisation of further technical work would improve confidence in the ERA results and allow them to be used for potential categorisation of species into the SIOFA assessment framework, or for prioritisation of species for additional data collection, assessment and/or management actions. This would include additional effort to refine the SIOFA species list and resolve underlying database issues. Once the ERA results are finalised they should be considered in the context of information on current conservation and management measures, catches and species biology.

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## Recommendations *(working papers only)*

It is recommended that the SC:

- **Notes** that ERA can be a useful method for prioritising species that may require further data collection, assessment and/or management actions, particularly when results are considered against relevant conservation and management measures and in the context of information on catches, fishing effort and species biology;
  - **Notes** that these ERA tools could be extended to cover other taxa in SIOFA, including marine mammals, marine reptiles, seabirds and other species of concern;
  - **Notes** the methodological update made to this assessment;
  - **Notes** the actions described and proposed in response to discussions during SERAWG1 and SC4;
  - **Notes** that the uncertainties around the results indicate the need for additional work on the species list, species distribution, fishing effort data and selectivity assumptions;
  - **Notes** that until these uncertainties are reduced, results should be viewed with caution;
  - **Requests** the Secretariat to work collaboratively with each Contracting Party (CP) to resolve species coding and database issues (particularly whether catch data for 'unspecified trawl' gears can be disaggregated into specific trawl gear types) before SC6 in 2021;
  - **Requests** Australia to continue to lead this work in collaboration with the Secretariat and SIOFA CPs; and
  - **Recommends** to the Meeting of the Parties that an update to this work to resolve the aforementioned uncertainties is reflected in SIOFA SC's and SERAWG's workplans.
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