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# Update on the ecological risk assessment of deepwater chondrichthyan species

## Abstract of restricted document

**Delegation of Australia**

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<b>Abstract</b>	
<p>This paper presents a revised and updated ecological risk assessment (ERA) for SIOFA chondrichthyans, which was last presented at SERAWG2 in March 2020 (See, SERAWG-02-10). This updated assessment uses two tools, Productivity-Susceptibility Analysis (PSA) and Sustainability Assessment for Fishing Effects (SAFE), to assess the vulnerability of chondrichthyans to demersal trawl, midwater trawl, 'shallow demersal trawl' (Saya de Malha bank fishery), demersal longline and pelagic longline gears (targeting oilfish) in SIOFA fisheries. The species list is identical to that which was used previously and was developed using logbook and observer records in the SIOFA database and information from annual reports submitted by SIOFA Contracting Parties. The vertical and horizontal overlap was updated based on new fishing effort data from 2015 to 2019. Species distribution data was collated from multiple mapping sources (AquaMaps, FAO GeoNetwork and IUCN) with the sensitivity of the risk scores to data from each of these mapping sources also assessed. Life history attribute data was sourced from the CSIRO database that underpins the CSIRO ERA online tool and was available for most species with updates made to the database in the intervening period. Several species were classified as either at high or extreme vulnerability according to the SAFE, including some deepwater shark species that are still reported as retained in large numbers in the SIOFA area, including <i>Dalatias licha</i> in the demersal longline fishery. The</p>	

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choice of mapping source (AquaMaps, FAO GeoNetwork and IUCN) had a significant effect on the vulnerability score of chondrichthyan species in the SAFE across all five fisheries and therefore any assessment of overall species-level vulnerability and the effectiveness of conservation and management measures within the SIOFA area must consider the underlying reliability of predicted distributions from these mapping sources. Consequently, it is recommended that further investigation is undertaken into the different mapping sources to determine which of these provide the most accurate representation of distribution for the different deepwater chondrichthyans in the SIOFA area.

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