



## **Fishery Summary: orange roughy (*Hoplostethus atlanticus*)**

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## 1. Species Summary

Common name	orange roughy
Scientific name	<i>Hoplostethus atlanticus</i> Collet 1889
Scientific synonyms	<i>Hoplostethus gilchristi</i> , <i>Hoplostethus islandicus</i>
FAO species code	ORY
Year of this report	2023
Assessment	One assessment area, Walter's Shoal Ridge, within FAO area 51
Areas/Management Units	
Assessment method	Integrated stock assessment (using CASAL)
Most recent assessment	2022
Year of next assessment	2025
Harvest strategy	Not yet defined
Summary of current stock status	For the Walter's Shoal Ridge, there is a 76% probability that the stock was not overfished and no overfishing was taking place in 2020 (para 92, SC7 report 2022) No other assessments are available in other areas

This report describes the orange roughy fishery in the SIOFA Area and available biological parameters for orange roughy. Management advice for this species is given in the Report of the Scientific Committee of SIOFA (2022) and management decisions are summarised in the Report of the Meeting of Parties of SIOFA (2022).

Fisheries for orange roughy in the SIOFA Area are managed under CMM 2020/01 (Interim Management of Bottom Fishing) and CMM2021/15 (Management of Demersal Stocks). A harvest strategy for the orange roughy stocks has not yet been developed ([Butterworth 2022](#)).

Orange roughy is assessed through an integrated stock assessment, using the CASAL software package ([Bull et al. 2012](#)). The current stock status of orange roughy provided in the [SC7](#) report was based on SC7-07-35 ([Roa Ureta et al. 2022](#)).

## 2. Biological Summary

Orange roughy is globally widespread in deeper waters. In the south-central Indian Ocean, it has been found in association with bottom features to a depth of 180–1800 m. For orange roughy, there is evidence for ontogeny changes with increasing depth ([Dunn et al. 2009](#); [Dunn & Forman 2011](#)). Orange roughy are benthic pelagic and are usually found near the bottom, but sometimes up to 50–200 m above the seabed to forage, or in spawning plumes in areas of high-water mass movement and mixing ([Lorance et al., 2002](#)). Parasite and trace element analyses indicate orange roughy is a relatively sedentary species with little movement between fishery management areas ([Edmonds et al. 1991](#)).

Aggregations of orange roughy form in cold waters (3–9 °C) at depths between 700 and 1600 m on steep continental slopes, over canyons, ridges and other underwater topographical features such as seamounts, especially to spawn and feed ([Clark et al. 2000](#), [Uiblein et al. 2003](#), [Clark et al. 2016](#)), with individuals migrating up to 100 km to reach a spawning ground ([Coburn & Doonan 1994](#), [Francis & Clark 1998](#)). Spawning occurs in specific areas, generally at depths of 700–1000 m near pinnacles and canyons from May to August (in the southern hemisphere), with differences in the onset of spawning