



**Australian Government**  
**Bureau of Rural Sciences**

**AUSTRALIAN FISHING FOR NON-HIGHLY  
MIGRATORY FISH (1987 – 2006) IN THE AREA  
OF THE PROPOSED SOUTH PACIFIC  
REGIONAL FISHERIES MANAGEMENT  
ORGANISATION**

by

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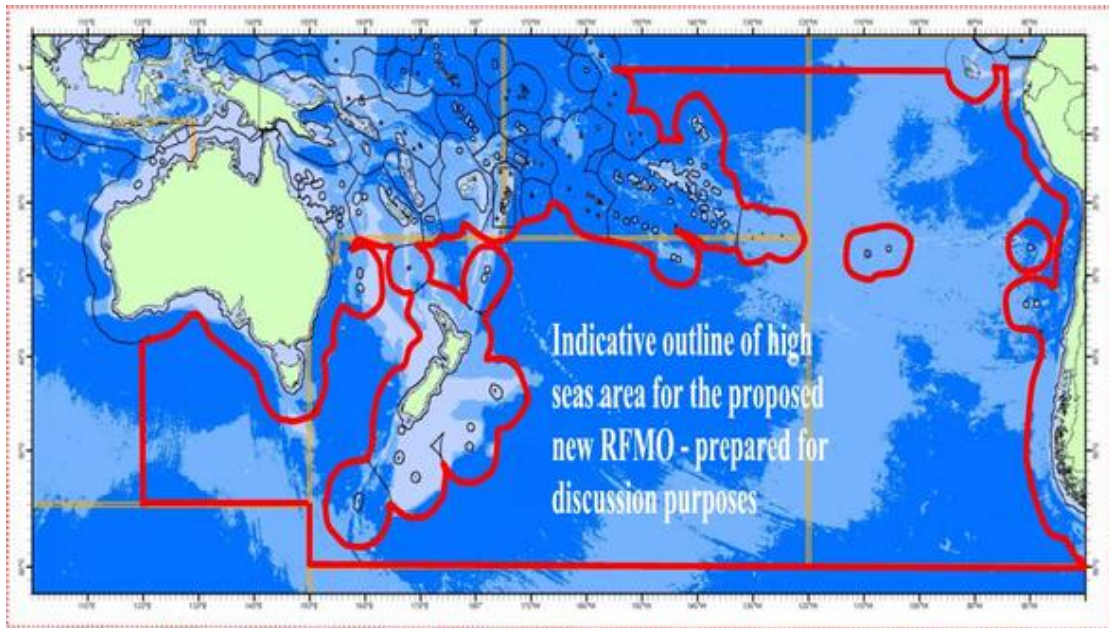
## 1. Introduction

This report provides a summary of catch and effort of Australian-registered vessels targeting various species with mid-water and demersal gear on high seas in the indicative area of the proposed South Pacific Regional Fisheries Management Organisation (SPRFMO) (23.5°S to 60°S and 120°E to 180°E - the reporting area) (Figure 1).

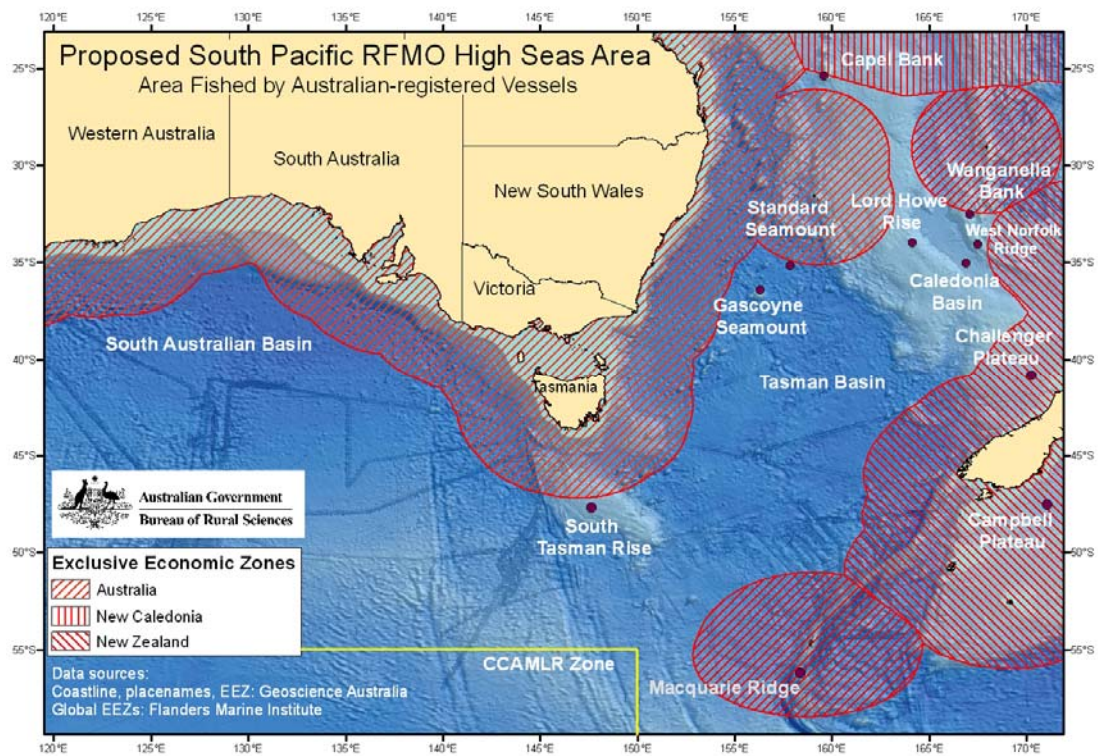
This summary excludes data from within the Exclusive Economic Zone (EEZ) of mainland Australia, external territories (e.g. Macquarie Island or Norfolk Island) and other countries (e.g. New Zealand). The report also excludes data collected from within the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) zone (55°S to 60°S and 120°E to 150°E) (Figure 2).

The majority of the high seas demersal catch was taken by vessels using trawl gear, however some vessels used bottom lines, drop lines, fish traps or gillnets. Data presented are logbook records collected and reported by fishers from 1987 to 2006 inclusive. To meet confidentiality requirements under Australian privacy legislation, the data have been aggregated spatially and temporally to ensure that reported values represent the results of fishing operations by at least five vessels. To maintain confidentiality, data for trawl catches are pooled for some years. Similarly, data from drop line, bottom line, fish trap and gillnet operations have been pooled across gear type (and are hereafter referred to as non-trawl) and for some years.

The vessels undertaking high seas fishing in South Pacific waters do so under permits issued by the Australian Fisheries Management Authority (AFMA). However, they also operate in a number of Australian Government-managed fisheries including the South East Scalefish and Shark Fishery, South Tasman Rise Fishery and the Norfolk Island Fishery.



**Figure 1: Proposed South Pacific Regional Fisheries Management Organisation area. Source: South Pacific RFMO.**



**Figure 2: South Pacific RFMO area examined in this report highlighting boundaries surrounding EEZs and the CCAMLR zone.**

## 2. Regulatory Measures

### Management Arrangements

Australian vessels require a permit from AFMA to be able to fish in the reporting area. These permits require annual renewal, with renewal subject to satisfactory compliance with permit conditions. From 2002, permit conditions have included the requirement to record catch and effort data in logbooks on a shot-by-shot basis, including position of fishing operations. These logbooks also allow fishers to record discards and bycatch.

### 3. Catch and Effort

It is uncertain whether all catches taken prior to the implementation of mandatory logbooks in 2002 have been reported. Earliest catch records by Australian vessels in the reporting area are from trawl fishing in 1987 (Table 1). Trawl effort (1987 – 2006) was focussed on the South Tasman Rise and the Lord Howe Rise while to a lesser degree, the Tasman Basin and the Gascoyne and Standard seamounts areas were also targeted. A total trawl effort of 1868 h and 1403 h was reported from the South Tasman Rise and Lord Howe Rise respectively. Non-trawl effort (1997 – 2006) was largely focussed on the Gascoyne and Standard seamounts area, Capel Bank and a large area skirting the Australia EEZ from the Great Australian Bight to 140°E (Figure 2).

Over 100 species have been reported to have been taken from the reporting area. Trawl catches have been dominated by orange roughy (*Hoplostethus atlanticus*), with other prevalent species including alfonsino (*Beryx splendens*), smooth oreo (*Pseudocyttus maculatus*) and spikey oreo (*Neocyttus rhomboidalis*). The non-trawl catch was dominated by blue-eye trevalla (*Hyperoglyphe antarctica*), morwongs (*Nemadactylus* spp.), ocean blue-eye trevalla (*Schedophilus labyrinthica*) and yellowtail kingfish (*Seriola lalandi*). The difference in the dominant species reflects both the different gear types and the different species that occupy the midwater habitats targeted by these gears compared to the benthic habitats fished by trawlers.

Over the reporting period data records, 7240 t of orange roughy was caught off the South Tasman Rise and 3120 t from the Lord Howe Rise. Smaller catches of orange roughy were also taken from the area surrounding Gascoyne and Standard seamounts and the Tasman Basin. The South Tasman Rise was also an important area for smooth oreo (1268 t) and spikey oreo (1342 t). Alfonsino have largely been caught on the Lord Howe Rise where 311 t was caught. Most of the non-trawl catch was taken from the area surrounding Gascoyne and Standard seamounts.

#### **4. Annual Fleet Size and Distribution**

The number of vessels operating in the reporting area are presented in Table 3. The majority of vessels using trawl gear also operated in the south east trawl fishery, with a small number operating in the Great Australia Bight and South Tasman Rise fisheries. Most trawl vessels operated out of ports in Tasmania, New South Wales and Victoria while two vessels from Japan also contributed logbook data. Most non-trawl vessels operated out of ports in Tasmania, Victoria and South Australia.

#### **5. Fisheries Monitoring**

##### **Logbook Data**

Fishers with permits to fish in the reporting area are required by law to keep logbook records and provide these records to AFMA for the purposes of monitoring, compliance and research. High seas fishing data in this report are sourced from Australian catch and effort logbooks. For the trawl sector, the period of record ranges from 1987 to 2006, whereas data from the non-trawl sector is from 1997 to 2006.

##### **Observer Programme**

Observer coverage occurs on an *ad hoc* basis and is carried out opportunistically on vessels operating across fishery jurisdictions (i.e. from within Australia's EEZ to high seas). The observer programme collects data on catch, effort, discards, bycatch and wildlife interactions.

**Table 1: Number of high seas vessels, effort and annual catch of major species using trawl gear in the reporting area 1987-2006.**

Year	No. Vessels	Effort (Trawl h)	Catch of major species (t)					Total Catch (t)	
			Orange roughy	Smooth oreo	Spikey oreo	Alfonsino	Cardinal- fishes		Other species
1987 – 1990*	6	105	9	0	0	0	0	8	17
1991 – 1993*	6	85	367	1	107	0	0	4	479
1994	7	257	192	0	6	0	2	3	203
1995 – 1996*	6	62	21	12	10	0	52	2	98
1997	10	396	1458	505	448	1	15	41	2468
1998	12	916	3098	420	620	1	2	3	4143
1999	10	777	2514	106	89	8	1	4	2720
2000	12	752	948	123	86	4	7	1	1170
2001	9	307	751	13	31	1	0	3	799
2002	14	215	383	4	35	3	0	5	429
2003	10	115	156	3	32	2	0	5	198
2004	10	69	351	16	9	1	0	2	381
2005	7	47	207	74	1	81	0	17	380
2006	7	121	166	0	0	209	0	77	452
<b>Total</b>		<b>4224</b>	<b>10 620</b>	<b>1277</b>	<b>1475</b>	<b>311</b>	<b>78</b>	<b>175</b>	<b>13 935</b>

\* Data pooled across years to maintain operator confidentiality

**Table 2. Number of high seas vessels and annual catch of major species using non-trawl gear in the reporting area 1997-2006.**

Year	No. Vessels	Catch of major species (t)					Total catch (t)
		Morwong	Blue eye trevalla	Ocean blue eye trevalla	Yellowtail kingfish	Other spp.	
1997 – 1998*	5	31	32	0	15	36	114
1999	5	29	22	0	13	20	85
2000 – 2001*	5	121	27	35	19	72	274
2002	6	81	27	66	32	39	244
2003	5	16	30	13	1	28	89
2004	6	0	2	7	0	9	19
2005 – 2006*	5	0	3	0	0	4	8
Total		279	144	121	80	209	833

\* Data pooled across years to maintain operator confidentiality



**Table 3: No of high seas fishing vessels by gear type operating in the reporting area.**

Year	Bottom Line	Drop Line	Fish Trap	Gillnet	Trawl
1987					1
1988					1
1989					3
1990					3
1991					1
1992					1
1993					4
1994					7
1995					3
1996					3
1997		1			10
1998	1	2		1	12
1999	2	3		1	10
2000	1			1	12
2001	2	2	1	1	9
2002	2	2		3	14
2003	1	3		1	10
2004	1	3		2	10
2005	1	3		1	7
2006	1				7