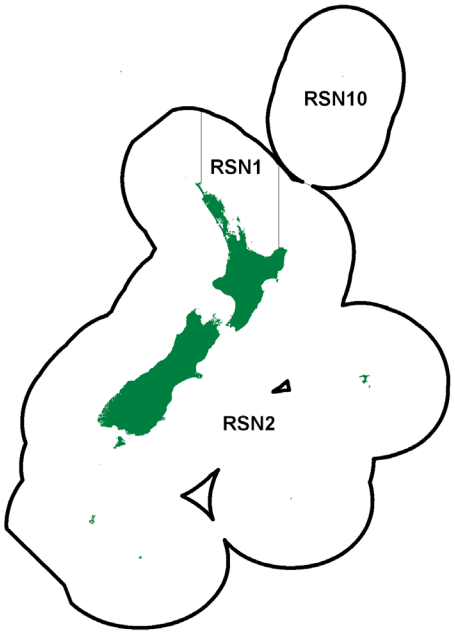
RED SNAPPER (RSN)

(Centroberyx affinis)
Kaorea



1. FISHERY SUMMARY

Red snapper was introduced into the Quota Management System on 1 October 2004 with the TACs, TACCs and allowances as shown in Table 1.

Table 1: Recreational and Customary non-commercial allowances, other mortality, TACCs, and TACs (t) for red snapper by Fishstock.

Fishstock	Recreational allowance	Customary non-commercial allowance	Other sources of mortality	TACC	TAC
RSN 1	13	2	1	64	80
RSN 2	2	1	1	81	85
RSN 10	1	1	1	1	4

1.1 Commercial fisheries

Small commercial catches of red snapper in New Zealand have almost certainly been made for decades, but would have been included among "assorted minor species" in reported landings. Historical estimated and recent reported red snapper landings and TACCs are shown in Tables 2, 3 and 4, while Figure 1 shows the historical and recent landings and TACC values for the main red snapper stocks.

Reported total annual landings increased to a peak of 212 t in 1996–97, and declined to an average of 50 t since the fishing year 2003–04. From 1989–90 to 2012–13 an average of 80% of total landings originated from RSN 1. Since 2013–14 landings in RSN 2 have increased, exceeding the TACCs in 2013–14, 2014–15, 2016–17, and 2017–18; in 2017–18 and 2018–19 similar amounts of landings were recorded in RSN 1 and RSN 2, and in 2019–20, landings in RSN 1 remained at the=is level while landings in RSN 2 increased to 38 t. RSN 10 landings have always been negligible, with no landing recorded at all since the late 1990s.

Red snapper is mostly taken as a bycatch of 1) the longline fishery for snapper off east Northland, 2) the trawl fisheries for tarakihi off east and west Northland, and 3) the setnet fishery for snapper and trevally in the Bay of Plenty.

Table 2: Reported landings (t) for the main QMAs from 1931 to 1982.

Year	RSN 1	RSN 2	Year	RSN 1	RSN 2
1931–32	0	0	1957	0	0
1932–33	0	0	1958	0	0
1933–34	0	0	1959	0	0
1934–35	0	0	1960	0	0
1935–36	0	0	1961	0	0
1936–37	0	0	1962	0	0
1937–38	0	0	1963	0	0
1938–39	0	0	1964	0	0
1939–40	0	0	1965	0	0
1940–41	0	0	1966	0	0
1941–42	0	0	1967	0	0
1942–43	0	0	1968	0	0
1943–44	0	0	1969	0	0
1944	0	0	1970	0	0
1945	0	0	1971	0	0
1946	0	0	1972	0	0
1947	0	0	1973	0	0
1948	0	1	1974	0	1
1949	0	1	1975	0	0
1950	0	13	1976	0	4
1951	0	47	1977	0	7
1952	0	57	1978	0	4
1953	0	35	1979	0	1
1954	0	23	1980	0	9
1955	0	18	1981	0	3
1956	0	18	1982	0	3

Notes:

1. The 1931–1943 years are April–March but from 1944 onwards are calendar years.
2. Data up to 1985 are from fishing returns: Data from 1986 to 1990 are from Quota Management Reports.
3. Data for the period 1931 to 1982 are based on reported landings by harbour and are likely to be underestimated as a result of under-reporting and discarding practices. Data includes both foreign and domestic landings.

Table 3: Reported landings (t) by commercial fishers of red snapper by FMA from 1989–90 to 2003–04. Data are derived from the landing section of CELRs and CLRs.

	FMA 1	FMA 2	FMA 3	FMA 4	FMA 7	FMA 8	FMA 9	FMA 10	Unknown	Total
1989–90	67.9	3	3.1	0	1.8	0.9	0	0	0.0	76.7
1990–91	107.3	1.2	2.8	0	0.6	0.7	0	0	0.0	112.7
1991–92	89.1	0.7	1.1	0	0	1.6	0	0.6	0.0	93.2
1992–93	98.2	2.1	0.4	0	0	0.6	0	0	0.3	101.6
1993–94	78.2	2.6	0.3	0.1	0.4	0.4	0.2	0	0.0	82.4
1994–95	78.2	1.8	0.3	0	0.2	0.6	0.5	0	1.0	82.6
1995–96	126.7	2.1	0.8	0.2	1.2	0.2	1	0	1.3	133.4
1996–97	186.4	17.4	0.9	0	1	0.3	2.9	0.2	2.8	211.8
1997–98	159.1	3.4	0.3	0	0.2	0.7	3.6	0	0.8	168.2
1998–99	134.4	1.5	0.4	0.1	0.3	1	4.7	0	0.4	142.8
1999–00	108.1	1.3	0.8	0	0.1	21.3	25.4	0	0.7	157.7
2000–01	140.0	1.1	2.3	0.8	0	0.8	51.5	0	0.0	196.5
2001–02	109.7	1.5	2.2	0.1	0	0.4	12.3	0	0.6	126.7
2002–03	117.5	2.2	0.3	0	0	0.6	37.5	0	14.2	172.5
2003–04	40.9	1.8	0.2	0	0.3	1.3	6.7	0	0	51.3

1.2 Recreational fisheries

None of the telephone-diary surveys of recreational fishers in 1994, 1996, and 2000 nor the National Panel Survey conducted over the 2011–12, 2017–18 and 2022–23 fishing years (Wynne-Jones et al 2014, 2019, Heinemann & Gray 2024) provided estimates of the recreational catch of red snapper. However, recreational fishers periodically catch this species while line fishing on deep reefs in Northland, the outer Hauraki Gulf, and Bay of Plenty.

1.3 Customary Fisheries

There is no quantitative information available to allow the estimation of the amount of red snapper taken by customary non-commercial fishers.

Table 4: Reported domestic landings (t) of red snapper Fishstock and TACCs from 2004–05 to present.

	RSN 1 FMA 1		RSN 2 FMA 2–9		RSN 10 FMA 10		Total	
	Landings	TACC	Landings	TACC	Landings	TACC	Landings	TACC
2004–05	43	124	11	21	0	1	54	146
2005–06	41	124	8	21	0	1	49	146
2006–07	44	124	10	21	0	1	53	146
2007–08	70	124	17	21	0	1	87	146
2008–09	30	124	12	21	0	1	42	146
2009–10	22	124	9	21	0	1	31	146
2010–11	27	124	8	21	0	1	35	146
2011–12	23	124	5	21	0	1	27	146
2012–13	38	124	7	21	0	1	45	146
2013–14	38	124	25	21	0	1	63	146
2014–15	33	124	25	21	0	1	58	146
2015–16	26	124	18	21	0	1	44	146
2016–17	43	124	23	21	0	1	66	146
2017–18	23	124	24	21	0	1	46	146
2018–19	22	124	16	21	0	1	38	146
2019–20	23	64	38	81	0	1	61	146
2020–21	23	64	57	81	0	1	80	146
2021–22	35	64	79	81	0	1	114	146
2022–23	32	64	53	81	0	1	85	146
2023–24	31	64	36	81	0	1	67	146

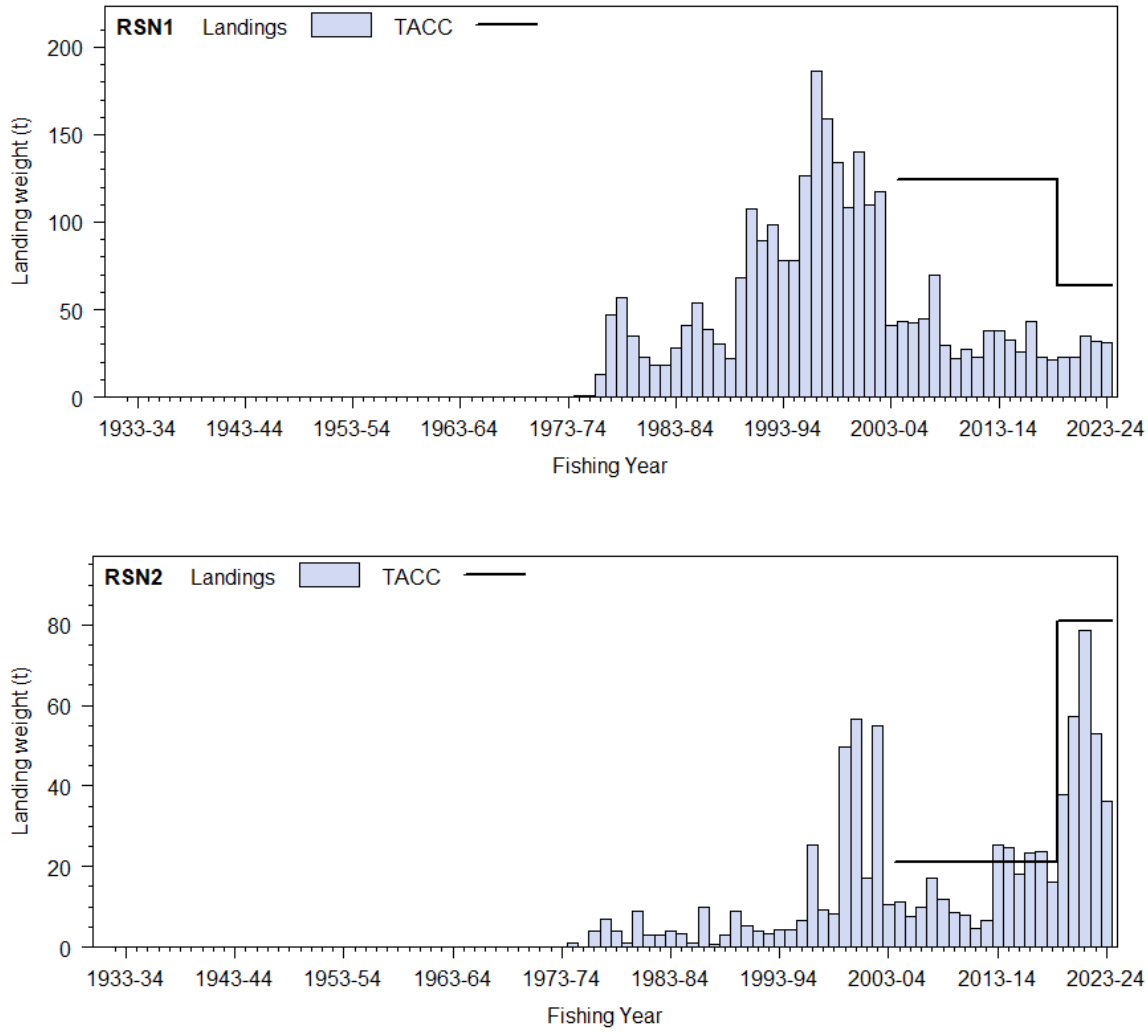


Figure 1: Reported commercial landings and TACC for the main RSN stock, RSN 1 (Auckland) and RSN 2 (Central East).

2. BIOLOGY

The red snapper (*Centroberyx affinis*) is present throughout New Zealand coastal waters, but is generally rare south of East Cape and Cape Egmont. In southeastern Australia (known as redfish) it occurs from Brisbane to Melbourne, and off northern Tasmania.

Red snapper occur in association with deep coastal reefs, in particular caves and overhangs, as well as in open water, to depths of about 400 m. Their relative abundance within this depth range is unknown. The southeastern Australian target fishery operates at depths of 100–250 m (Rowling 1994).

There have been no formal ageing studies of New Zealand red snapper, but Leachman et al (1978) reported a maximum ring count of 80, based on examination of a few broken and burned otoliths. These rings were not, however, validated. Research in Australia, based on tagging and thin otolith sections suggest unvalidated ages of at least 35 (Rowling 1994) and 40 years (Smith & Robertson 1992). Radiocarbon analysis supported an age of at least 37 years (Kalish 1995).

Red snapper attain 55 cm in New Zealand but average 30–40 cm. Nothing is known of their reproductive biology.

The Intrinsic Productivity Level is categorised as Low for this species.

3. STOCKS AND AREAS

There has been no research to determine if there are separate biological stocks of red snapper.

4. STOCK ASSESSMENT

There has been no scientific stock assessment of the biomass that can support the Maximum Sustainable Yield (*MSY*) for red snapper.

5. STATUS OF THE STOCKS

For all Fishstocks there is insufficient information to estimate current stock status.

6. FOR FURTHER INFORMATION

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