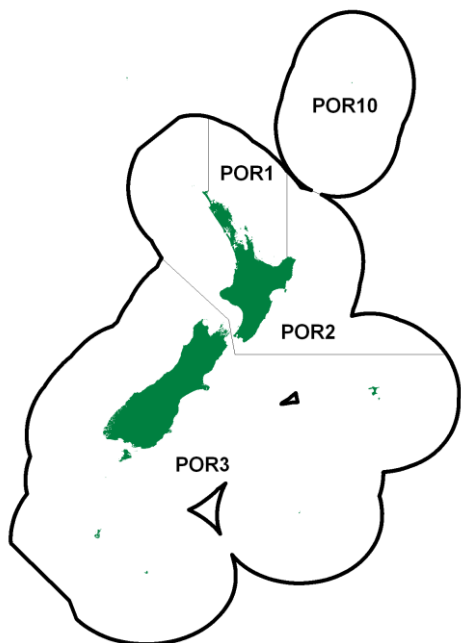


**PORAE (POR)***(Nemadactylus douglasii)*

Porae

**1. FISHERY SUMMARY**

Porae was introduced into the Quota Management System on 1 October 2004 with the following TACs, TACCs and allowances (Table 1). These have not been changed.

**Table 1: TACs (t), TACCs (t) and allowances (t) for porae.**

Fishstock	Recreational Allowance	Customary non-commercial Allowance	Other sources of mortality	TACC	TAC
POR 1	6	3	4	62	75
POR 2	1	1	1	18	9
POR 3	1	1	1	2	5
POR 10	1	1	1	1	4
Total	9	6	7	83	93

**1.1 Commercial fisheries**

Commercial catches of porae throughout New Zealand are generally small (Table 2, Table 3 and Table 4). Annual catches in FMA 1, where the majority of porae are caught, have approximately halved since the early 1990s. Catches in FMAs 2, 3, 7, and 9 have remained low. No catches have been reported from FMAs 4, 5, or 6.

Porae is principally caught as a bycatch in inshore setnet fisheries in northern New Zealand. It is generally taken in association with snapper and trevally in east Northland and Coromandel, and tarakihi and blue moki around Gisborne. Small quantities are taken by bottom longline and trawl fisheries targeting snapper off east Northland and Ninety Mile Beach.

Landings are typically under 10 t and the proportion of vessels reporting catches declined steadily during the 1990s. Fishers may confuse the codes PAR (parore) and POR (porae) when reporting catches, but given that both species occur in shallow northern waters, misreporting is difficult to discern.

## PORAE (POR)

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

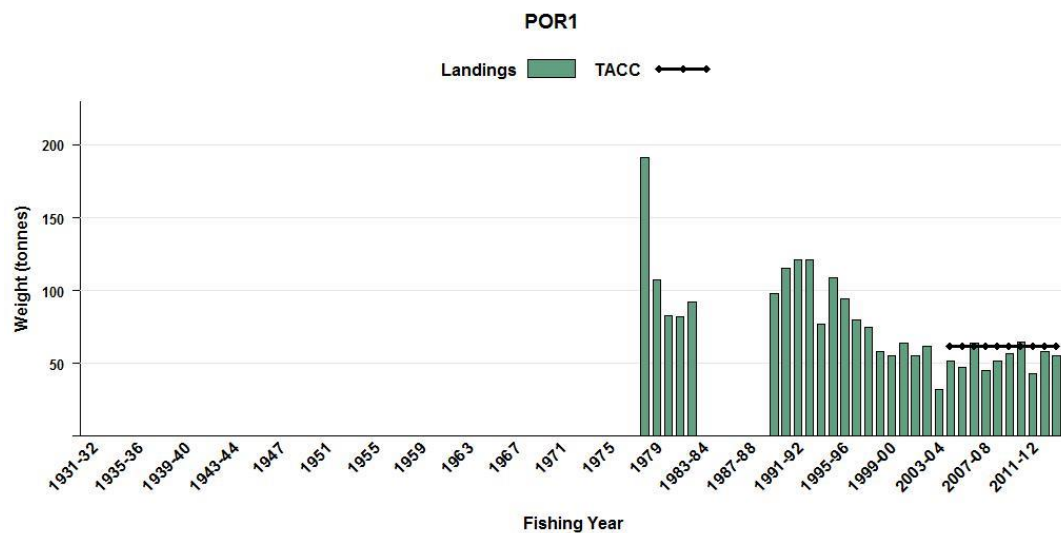
Year	POR 1	POR 2	POR 3	Year	POR 1	POR 2	POR 3
1931-32	0	0	0	1957	0	0	0
1932-33	0	0	0	1958	0	0	0
1933-34	0	0	0	1959	0	0	0
1934-35	0	0	0	1960	0	0	0
1935-36	0	0	0	1961	0	0	0
1936-37	0	0	0	1962	0	0	0
1937-38	0	0	0	1963	0	0	0
1938-39	0	0	0	1964	0	0	0
1939-40	0	0	0	1965	0	0	0
1940-41	0	0	0	1966	0	0	0
1941-42	0	0	0	1967	0	0	0
1942-43	0	0	0	1968	0	0	0
1943-44	0	0	0	1969	0	0	0
1944	0	0	0	1970	0	0	0
1945	0	0	0	1971	0	0	0
1946	0	0	0	1972	0	0	0
1947	0	0	0	1973	0	0	0
1948	0	0	0	1974	0	0	0
1949	0	0	0	1975	0	0	0
1950	0	0	0	1976	0	0	0
1951	0	0	0	1977	0	0	0
1952	0	0	0	1978	191	4	0
1953	0	0	0	1979	107	0	0
1954	0	0	0	1980	83	4	0
1955	0	0	0	1981	82	8	0
1956	0	0	0	1982	92	5	0

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) of porae by FMA, fishing years 1989–90 to 2003–04.**

	FMA 1	FMA 2	FMA 3	FMA 7	FMA 8	FMA 9	FMA 10
1989–90	98	4	< 1	< 1	< 1	0	0
1990–91	115	2	0	0	< 1	4	0
1991–92	121	5	< 1	0	0	3	0
1992–93	121	8	0	1	< 1	< 1	0
1993–94	77	12	2	0	< 1	1	< 1
1994–95	109	5	0	0	< 1	1	< 1
1995–96	94	8	< 1	< 1	< 1	4	0
1996–97	80	7	< 1	1	< 1	2	0
1997–98	75	4	< 1	< 1	< 1	3	0
1998–99	58	3	3	< 1	< 1	1	0
1999–00	55	4	< 1	2	< 1	1	0
2000–01	64	2	1	< 1	< 1	2	0
2001–02	55	3	1	< 1	< 1	< 1	0
2002–03	62	2	< 1	0	< 1	2	0
2003–04	32	2	< 1	< 1	< 1	2	0



**Figure 1: Reported commercial landings and TACC for POR 1 (Auckland East).**

**Table 4: Reported domestic landings (t) and TACC by Porae Fishstock, fishing years 2004–05 to 2012–13**

Fishstock FMA	POR 1		POR 2		POR 3		POR 10		Total	
	Landings	TACC	Landings	TACC	Landings	TACC	Landings	TACC	Landings	TACC
2004–05	52	62	5	6	< 1	2	0	1	57	71
2005–06	47	62	2	6	< 1	2	0	1	49	71
2006–07	64	62	9	6	0	2	0	1	73	71
2007–08	45	62	7	6	< 1	2	0	1	53	71
2008–09	52	62	5	6	0	2	0	1	57	71
2009–10	57	62	11	6	< 1	2	0	1	68	71
2010–11	65	62	7	6	< 1	2	0	1	72	71
2011–12	43	62	7	6	< 1	2	0	1	51	71
2012–13	58	62	9	18	0	2	0	1	67	83
2013–14	55	62	10	18	<1	2	0	1	66	83

## 1.2 Recreational fisheries

Recreational fishers are likely to catch porae whilst targeting species such as snapper, tarakihi and trevally with either hook and line or setnet. Opportunistic targeting of porae is also likely when spearfishing.

## 1.3 Customary non-commercial fisheries

There is no quantitative information on customary non-commercial harvest levels of porae. Customary non-commercial fishers are likely to catch small quantities of porae when targeting other species such as snapper, tarakihi and trevally.

# 2. BIOLOGY

Porae (*Nemadactylus douglasii*) is a common inshore species of northern New Zealand (Kermadec Islands, west Auckland and Northland, east Northland, Hauraki Gulf, and the Bay of Plenty). It is also found at some localities as far south as Kapiti Island, Cook Strait and Kaikoura over the summer months, but has not been recorded around the Chatham Islands. Porae also occurs in southeast Australia (New South Wales to Tasmania), where it is known as the grey or rubberlip morwong.

Porae are generally found on reef/sand interfaces in 10–60 m depth, but have been recorded at 100 m. This diurnal species tends to aggregate to form small to large groups over sandy areas. Adults are thought to occupy distinctive home ranges, with individuals residing in the same area for many years. A study along the east coast of Northland recorded an average of 200 porae for each kilometre of rocky coastline.

Very little is known about the biology of this species. They spawn in late summer and autumn, and have an extended planktonic postlarval stage. Juveniles settle to the seafloor at 8–10 cm long. Although they attain a maximum length of at least 70 cm, the average size is 40–60 cm. They live to at least 30 years and growth is believed to slow substantially at maturity (Ayling & Cox 1984, Francis 2001).

# 3. STOCKS AND AREAS

There is no biological information to suggest separate stocks around New Zealand. However, evidence of residential behaviour and the fact that they are long-lived, suggests that localised depletion is likely to occur.

# 4. STOCK ASSESSMENT

There is no fishery independent stock assessment information to determine the stock status of porae. Biomass estimates have not been determined for porae.

## 5. STATUS OF THE STOCK

Estimates of current and reference biomass are not available. It is not known if recent catch levels or TACs are sustainable. The status of POR 1, 2 and 3 relative to  $B_{MSY}$  is unknown.

TACCs and reported landings for the 2012–13 fishing year are summarised in Table 5.

**Table 5: Summary of TACCs (t) and reported landings (t) of porae for the most recent fishing year.**

Fishstock		FMA	2013–14 Actual TACC	2013–14 Reported landings
POR 1	Auckland (East)		62	55
POR 2	Central (East)	2	18	10
POR 3	South east, Southland, sub-Antarctic, Challenger	3,4,5,6,7, 8 &9	2	<1
POR 10	Kermadec	10	1	0
Total			83	66

## 6. FOR FURTHER INFORMATION

Ayling, T; Cox, G J (1984) *Collins guide to the sea fishes of New Zealand*. Collins, Auckland. 343 p.

Francis, M (2001) *Coastal fishes of New Zealand. An identification guide*. Reed Books, Auckland. 103 p. + pls.

Stewart, P (1993) Morwong, *Nemadactylus* species. In Kailola *et al.* (Eds), Australian fisheries resources. pp. 324–326. Bureau of Resource Sciences, Canberra. 422 p.

Thompson, S (1981) *Fish of the Marine Reserve. A guide to the identification and biology of common coastal fish of north-eastern New Zealand*. Leigh Laboratory, University of Auckland. 364 p.