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Fisheries of New Zealand, 1971

RICHARD S. BAUDER

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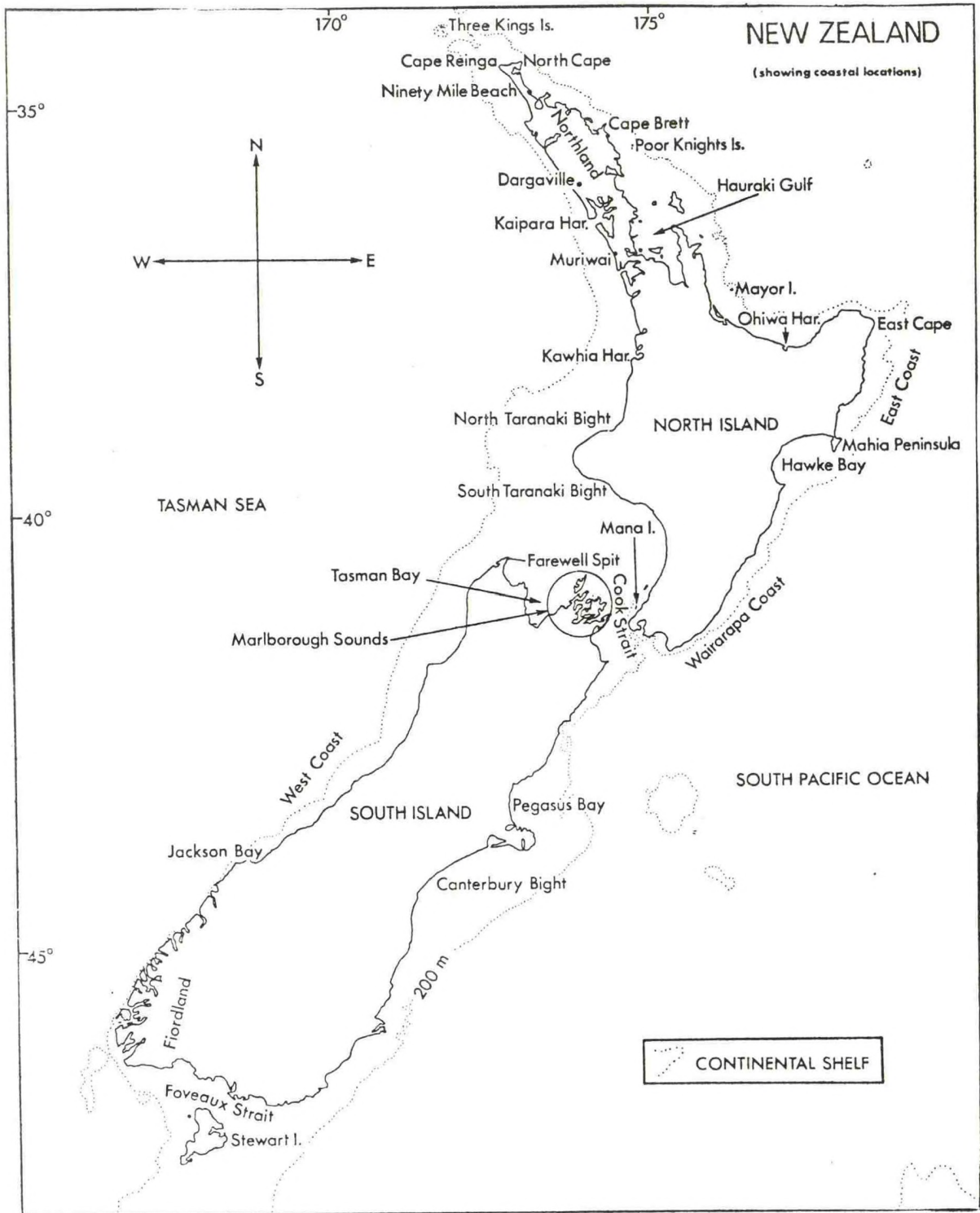
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Fisheries of New Zealand, 1971

	Page
Summary	1
Catch	1
Fleet	3
Ports	4
Foreign Trade	4
Research	7
Development Prospects	7



Fisheries of New Zealand, 1971^{1/}

By R. Bauder

SUMMARY

The New Zealand fish catch increased in both volume and value in 1971, and the fisheries enjoyed a profitable year. The rock lobster catch continued to decline, but the value increased considerably. The quantity and value of exports rose again in 1971. Frozen rock lobster accounted for two-thirds of the value, and fresh and frozen fish accounted for another one-fourth of the value.

CATCH

The 1971 catch increased 9 percent to 63,760 metric tons, of which 43,973 tons were fish and 19,787 tons were shellfish and crustaceans. The value of the 1971 catch was US\$22,261,402, up 18 percent from 1970, and the highest value in New Zealand's history. Fish was valued at US\$8,242,835, and shellfish at US\$14,018,567.

Rock lobster is by far the leading shellfish product of New Zealand. New Zealand snapper (Chrysophrys auratus) was the most important fish landed, comprising close to one-third of both the weight and value of the total fish catch in 1971. Trevally (Caranx luteschens) and tarakihi (Cheilodactylus macropterus) were second and third to snapper in volume. These three species accounted for 57 percent of the volume of catch in 1971. Snapper is marketed as fillets exported to Australia and the United States, and locally whole or as fillets. Table 1 gives the quantity and value of the 1970 and 1971 New Zealand fish landings.

Tarakihi has for many years been the second most important species of fish landed in New Zealand. As well as being a popular fish locally, it is exported in large quantities, particularly to Australia. In recent years catches have shown a decline, some of which is due to a stabilization of the fishery after initial heavy exploitation of almost virgin stock. Trevally catches have been increasing steadily. It is marketed principally as frozen fillets and sometimes as fillets or fish sticks. Red gurnard (Chelidonichtys kumu), ranked fourth in landings, is marketed whole and as fillets. Next to snapper and tarakihi, flounders (Rhombosolea plebeia and R. leporina), soles (Pelotretis flavilatus and Peltorhampus novaezeelandiae), and hapaku (Polyprion oxygeneios) are the most valuable species.

^{1/} Prepared by R. Bauder, International Activities Staff. Based on the Report of the Marine Department, Wellington, New Zealand, March 1972.

Table 1.--New Zealand fish landings, 1970-71

Species	1970		1971	
	<u>Metric tons</u>	<u>US\$</u>	<u>Metric tons</u>	<u>US\$</u>
New Zealand snapper	12,810	2,075,542	14,090	2,486,056
Trevally	4,239	346,705	5,948	538,971
Tarakihi	5,207	851,097	5,231	912,708
Gurnard	3,718	414,383	3,266	369,918
Eels	864	133,355	1,431	245,821
Elephant fish	1,130	446,735	1,383	527,739
Hapuku	1,499	535,380	1,346	585,332
Pioke	930	286,846	1,119	382,327
Barracouta	755	36,178	1,100	52,714
Soles	1,174	465,397	973	405,912
Moki	955	122,750	882	119,103
Flounders	1,114	568,311	860	468,191
Blue cod	1,022	353,336	644	204,845
Mackerel	250	11,675	631	28,703
Kingfish	526	88,786	629	108,448
Shark	450	97,471	597	177,003
Kahawai	294	19,691	572	41,784
Warehou	370	35,131	438	46,636
John Dory	419	120,343	413	138,682
Red cod	760	102,940	393	64,809
Others	<u>2,143</u>	<u>291,901</u>	<u>2,027</u>	<u>337,133</u>
Total	40,629	7,403,953	43,973	8,242,835

Sixty-eight percent of the fish catch was caught by trawling (table 2).

Table 2.--New Zealand wet fish landings by gear, 1971

Method	Quantity	Value
	<u>Metric tons</u>	<u>US\$</u>
Danish seines	5,896	959,550
Longlines and hand lines	3,670	1,142,682
Purse seines	565	32,472
Set and drag nets	3,818	930,252
Trawls	29,812	5,140,352
Other	<u>212</u>	<u>37,527</u>
Total	43,973	8,242,835

The catch of rock lobster in 1971 was valued at US\$10,869,281, or almost half the value of the combined fish and shellfish landings. Since 1968, the value of rock lobster has risen, while the catch has dropped from 10,908 tons to 5,676 tons. Table 3 shows the New Zealand rock lobster catches for the last 10 years.

Table 3.--New Zealand's rock lobster catches, 1962-71

Year	Quantity <u>Metric tons</u>	Value <u>US\$</u>	Year	Quantity <u>Metric tons</u>	Value <u>US\$</u>
1962	4,572	2,468,183	1967	8,077	4,978,268
1963	4,543	2,168,195	1968	10,908	8,565,796
1964	4,587	2,667,778	1969	8,894	10,211,345
1965	4,974	3,767,880	1970	6,464	9,278,642
1966	6,551	4,430,181	1971	5,676	10,869,281

Oysters worth US\$2,046,880 were dredged mainly in the Stewart Island area. New Zealanders caught 1,461 tons of abalone. Other products (including cockles, scallops, mussels, squid, octopus, and sea eggs or sea urchins) amounted to 3,177 tons worth US\$467,310.

FLEET

In 1971 New Zealand had 3,100 registered fishing vessels. About 5,275 fishermen took part in New Zealand fisheries in 1971.

The fleet can be described by types of vessels as follows: 67 Danish seiners, 413 trawlers, 2 purse seiners, 2,060 vessels using lines and set nets, 44 oyster dredges, 68 scallop and mussel dredges, and 1,389 rock lobster boats.

In 1965, the Government set up a loan and mortgage guarantee scheme to enable fishermen to purchase modern fishing vessels. Up to May 1972, loans amounting to \$2,290,500 were granted to fishing interests to purchase 81 fishing vessels, 2 flake ice plants, and 2 oyster farms. In 1972, 34 loans totaling almost 1 million dollars were approved for new vessels and projects planned in order to expand the New Zealand fishing industry and to enable New Zealanders to compete with Japanese vessels fishing off the New Zealand coast.

The present fleet is designed for coastal fishing. Most of the catch is of demersal species. Most vessels are small and are not designed or equipped for ocean fishing far from shore. Because the fishing industry is of recent development in New Zealand, fishermen have not yet mastered the techniques or equipment used by more experienced, better equipped fleets.

Although fishing has figured prominently in the way of life in New Zealand for many years, it was not until 1964, with the removal of restrictive licensing of fishing vessels and the establishment of the Fishing Industry Board to help promote the industry that the industry showed much expansion. New Zealand's fisheries have grown at an accelerating rate in the past decade as the result of Marine Department research and governmental assistance.

PORTS

About 88 percent of the fish landings in 1971 were landed in 18 New Zealand ports. Table 4 shows the landings in the leading ports.

Table 4.--Wet fish landings in leading New Zealand ports, 1971

Port	1971 <u>Metric tons</u>	Port	1971 <u>Metric tons</u>
Auckland	9,351	New Plymouth	878
Gisborne	4,576	Thames	760
Tauranga	3,801	Raglan	624
Manukau	3,702	Wanganui	616
Nelson	3,010	Coromandel	606
Napier	2,746	Bluff and Stewart Is.	596
Wellington	1,463	Akaroa	556
Lyttelton	1,240	Greymouth	518
Port Chalmers	1,069		

FOREIGN TRADE

Exports of fish products from New Zealand in 1971 were 12,035 tons, valued at US\$23,396,956, an increase from 1970 when exports totaled 10,596 tons worth US\$19,665,721. Exports of fresh and frozen fish increased 14 percent to US\$5,646,556. About 8,310 tons of fresh and frozen fish were exported in 1971. New Zealand snapper was the leading fish exported with 2,782 tons worth US\$1,908,440. Eel was second, totaling 1,604 tons worth US\$1,159,977. Significant amounts of flatfish, trevally, and white fillets were also exported (table 5).

Rock lobster totaling 2,323 tons worth US\$15,520,937, were exported in 1971. Exports of lobster comprised about two-thirds of the gross value of fish exports from New Zealand in 1971.

Table 5.--Exports of fish and shellfish products from New Zealand, 1971

Species	Quantity (Metric tons)	Value (US\$)
<u>Fresh, frozen, chilled</u>		
Barracouta	68	24,699
Blue cod	68	51,678
Eel	1,604	1,159,977
John Dory	36	77,074
Flatfish	702	482,970
Gurnard	315	192,091
Red cod	19	7,976
New Zealand snapper	2,782	1,908,440
Tarakihi	543	443,955
Trevally	667	292,704
Tuna	44	16,659
White fillets	618	534,946
Others	844	452,387
Total	8,310	5,645,556
<u>Prepared or preserved</u>		
Smoked eel	33	27,093
Smoked, other	42	37,316
Canned eel	4	3,705
Canned whitebait	8	6,995
Canned, other	52	48,908
Fish meal	142	28,389
Total	281	152,406
<u>Rock lobster and rock lobster tails</u>		
Frozen	2,166	15,083,183
Prepared	157	437,754
Total	2,323	15,520,937
<u>Other crustacea and mollusks</u>		
Oysters, raw	124	110,411
Others	101	156,323
Abalone, canned and preserved	844	1,705,831
Others	52	105,492
Total	1,121	2,078,057
Grand total	12,035	23,396,956

Table 6 shows trends in exports of major fish products from New Zealand for the last 3 years. Fresh and frozen exports have increased greatly in both volume and value since 1969. The volume of exports of frozen rock lobster dropped consistently, while the value fluctuated.

Table 6.--New Zealand exports of fresh and frozen fish and rock lobster, 1969-71

Year	Fresh and frozen fish		Rock lobster, frozen	
	<u>Metric tons</u>	<u>US\$</u>	<u>Metric tons</u>	<u>US\$</u>
1969	3,760	2,189,153	2,953	16,404,847
1970	7,323	4,889,352	2,716	14,326,984
1971	8,310	5,645,556	2,323	15,520,937

The export value of fish products from New Zealand to the United States in 1971 was US\$13,019,000. Fish and fish products were the fourth most valuable commodity exported to the United States. Exports to the United States are being hampered by the unacceptability of New Zealand fish names.

New Zealand's imports of fish products in 1971 remained minimal. Canned sardines and salmon were the leading products imported. Canned salmon amounted to almost one-third of the imports.

Table 7.--New Zealand imports of fish and fish products, 1971

Product	<u>Quantity</u>	<u>Value</u>
	<u>Metric tons</u>	<u>US\$</u>
Fish, fresh, chilled, or frozen	32	100,490
Fish, salted, dried, or in brine	6	10,475
Crustacea (other than canned)	18	16,744
Herring, pilchards, sardines (canned)	1,813	908,715
Salmon (canned)	1,343	2,435,528
Crustacea and mollusks (canned)	363	767,460
Fish pastes and preparations	439	556,568
Others	<u>248</u>	<u>160,558</u>
Total	4,262	4,956,538

RESEARCH

The fishing industry of New Zealand is small, but plans call for expansion. Investigations are being made to determine whether certain species are found in sufficient numbers off New Zealand to justify an expanded fishery. Because of its importance to the New Zealand fishing industry, rock lobster is investigated thoroughly. Most of the rock lobster research involves finding sources of lobsters to ensure a continuing supply. Other research aims at improving the catching techniques.

A recent study of prawns has determined that the establishment of a fishery would not be feasible with present vessels and gear. Mussels, prawn, and oysters are being studied to determine whether fisheries can be established.

The Fisheries Committee has recommended developing New Zealand's pelagic fish catch. In 1971, pelagic fish comprised 21 percent of the catch. The New Zealand government has been asked to provide about US\$700,000 to help develop this fishery. Kahawai, trevally, and horse mackerel will be the principal species sought. Most of the catch from this project will be delivered to a proposed US\$230,000 fish meal plant.

DEVELOPMENT PROSPECTS

The most promising area for development by the New Zealand fishing industry is the abundant resource of marketable species living on or near the continental shelf of New Zealand.

New Zealand has no established prawn fishery, and only recently have investigations been made on the distribution and abundance of stocks around New Zealand. Although several species are widely distributed, they are not found in sufficient quantities to be taken commercially. Since these species occur between 100 and 400 fathoms, often far from shore, few New Zealand fishing vessels are large enough or sufficiently equipped to fish for them. The resource includes the New Zealand scampi (Metanephrops challengeri), jackknife prawn (Mymenopenaeus sibogae), sabre prawn (Campylonotus rathbunae), and royal red prawn (Aristeomorpha foliacea). The commercially fished grounds are off the North coast of North Island, where one vessel is fishing with an experimental trawl. The catch is cooked and frozen on board and sold at local markets.

The New Zealand government seeks to promote maximum development of fishery resources off New Zealand. The basic policy set out in the Fisheries Act provides that only New Zealand-domiciled fishermen, or New Zealand-controlled companies may own and operate fishing vessels inside the New Zealand 12-mile zone or land fish in New Zealand ports. Expansion of the fishery has been stimulated by the State Loan and Mortgage Guarantee Scheme. A Fisheries Development Council was established in 1970 to review progress in fisheries growth. The pelagic fishery was considered capable of significant development (tuna, kahawai, "Australian salmon," trevally, and pilchard). An experimental

purse seine study has been recommended by the Government to demonstrate the viability of this method in providing food and industrial fish.