

**11th MEETING OF THE SPC
STANDING COMMITTEE ON TUNA AND BILLFISH
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NATIONAL TUNA FISHERY REPORT — NEW ZEALAND

Background to fisheries

From the 1950s until the 1980s most tuna in and adjacent to the New Zealand area was caught by foreign flagged vessels from Japan, Korea, Taiwan and the United States. This picture began changing with the establishment of the 200 nautical mile zone (EEZ) and the realisation that excellent catches were possible, at least in summer months. Trolling for albacore and purse seining for skipjack began to be important in the 1970s and in most years since that time has been the mainstay of the New Zealand tuna industry. These fish, while seasonally abundant, were suitable only for canning and fetched low prices. New Zealand's entry into winter fishing by handline and trolling for southern bluefin marked our entry into the high valued "sashimi" market where price is determined by an individual fish's flesh condition and how well it is handled.

In each of these fisheries New Zealand fishers developed their own approaches and have been successful. Until the last 4–6 years, however, tuna fishing has not been a year round option and much of the catch continued to go to Japanese longliners targeting southern bluefin and bigeye tunas. Since 1991, however, Japanese fishing has continually declined in the EEZ. This decline in effort has resulted from several factors, including: declining abundance of southern bluefin tuna, area and vessel number restrictions, costs of licenses and observers. During the same period New Zealand fishers have expanded their longline fishing effort from fewer than 10 vessels to about 50 longline vessels. As with albacore and skipjack fisheries, New Zealand fishers have also introduced their own style to longline fishing, predominantly using monofilament mainlines.

New Zealand's tuna industry is now very diverse (longline, handline, troll and purse seine), operates throughout the year and makes a notable contribution to the combined tuna fisheries of the western Pacific Ocean. While most New Zealand effort takes place within the EEZ some fishing is done in high seas areas to the north and east of New Zealand, in addition some fishing by New Zealand companies takes place in the Fiji EEZ and Australian AFZ.

The seasonality of domestic fisheries by species is given in Table 1 which shows the percent contribution of each month to the total annual landings on average.

Table 1. Average monthly domestic tuna landings as a percent of the average annual landing (1993–1997), percentages shown in bold reflect the main fishing season (<90% of landings), data are from Ministry of Fisheries Licensed Fish Receiver Reports.

	Albacore	Bigeye	Skipjack	Yellowfin	Swordfish
Jan.	26.0	11.2	25.4	20.1	4.7
Feb.	31.5	12.1	25.5	19.6	10.2
Mar.	22.4	12.1	25.2	15.3	18.3
Apr.	9.4	10.6	10.2	8.5	15.3
May	3.8	8.3	6.7	2.5	15.3
June	2.0	6.1	1.3	0.6	11.0
July	0.7	2.7	0	0	12.5
Aug.	0.2	1.3	0	0	4.2
Sept.	0.1	2.5	0	0.8	2.4
Oct.	0.1	3.2	0	16.1	1.0
Nov.	0.3	10.9	0	4.3	2.1
Dec.	3.5	19.0	5.7	12.3	2.8

New Zealand tuna fisheries are most active during summer months but catches of all but skipjack and yellowfin tunas are possible year round. Over 90% of all landings are made a mixture of surface and longline fisheries that operate from spring through autumn (December—April for albacore, November—June for bigeye, December—May for skipjack, and October—April for yellowfin tunas). Swordfish are caught throughout the year with over 90% of all landings occurring during January—August, they can be landed if caught as bycatch but cannot be targeted. A prohibition on retention of all other billfish means that no marlins are landed in New Zealand although striped, blue and black marlins along with occasional short billed spearfish and sailfish are caught, particularly in the tuna longline fishery.

Total tuna catch, 1993–1997

Table 2 shows the New Zealand domestic tuna landings since 1993 by all gear types combined. By far the majority of these landings are from catches made within the EEZ although some high seas catches are also included. The Ministry of Fisheries Licensed Fish Receiver Reports, on which this summary is based, provides the most accurate estimates of total catches but does not allow separation of catches by area (eg EEZ or high seas) or gear type.

Table 2. Total New Zealand domestic tuna landings by calendar year since 1993 in tonnes (green weight), data are from Ministry of Fisheries Licensed Fish Receiver Reports.

	Albacore	Bigeye	Skipjack	Yellowfin	Swordfish
1993	3386.7	73.9	945.6	124.2	92.9
1994	5316.9	70.7	3136.6	53.1	93.8
1995	6295.1	59.7	1728.5	140.8	108.0
1996	6346.3	88.7	3652.4	200.9	182.4
1997	3626.3	141.9	5779.8	142.6	282.1

Fleet Structure

Fleet structure has not been analysed. However, the following general comments can be made regarding the range of vessels operating in New Zealand domestic tuna fisheries. The albacore troll fishery is a summer fishery with a wide range of mostly small vessels. Up to 500 vessels (mostly about 15 m length) enter this fishery from a range of other domestic fisheries. The longline fishery involves two fleets, 20–60 New Zealand owned and operated vessels ranging in size from 15 to 50 m long. In the 1996/97 fishing year many of these vessels have fished in the Australian Fisheries Zone or high seas areas to reduce the costs of operating in the NZ EEZ and several vessels are known to have been sold to Australian fishing companies in the past two years. The second fleet is comprised of five 50 m long Japanese longliners chartered to a New Zealand company. These vessels are permitted as New Zealand flag vessels but are operated by Japanese crew. Domestic owned and operated vessels target both southern bluefin and bigeye tunas, charter vessels primarily target southern bluefin but also occasionally target bigeye tuna. The remaining tuna fleet is comprised of 5–6 medium sized purse seiners which target skipjack in summer months and other endemic pelagic species the remainder of the year.

Catch by species and gear type

Estimated catch by species and gear type for the New Zealand EEZ for 1993–97 are shown in Table 3.

Markets

The markets for New Zealand caught tuna are varied. Albacore and skipjack are brine or blast frozen (longline caught albacore only) and shipped to a range of canneries. Bigeye is primarily caught for the fresh tuna market and air freighted primarily to Japan, yellowfin and swordfish are similarly treated.

Onshore developments

Although the onshore infrastructure of the New Zealand fishing industry is quite sophisticated, this is largely geared towards processing a range of trawl caught species. The tuna are largely processed at sea and onshore activities are mostly packing and shipping. In the 1970–80s several canneries operated for skipjack but these have all

been converted to other products and canning for domestic sale is a variety of overseas
canneries and canned skipjack is returned for domestic sale.

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Table 3. Number of vessels and estimated tuna catches by gear type 1993–97, data are from the Ministry of Fisheries Catch Effort Landing Returns and Tuna Longline Catch Effort Returns.

Handline (number of fish)

Year	no. vessels	albacore	bigeye	skipjack	yellowfin
1993	12	915	0	0	103
1994	13	292	0	0	22
1995	18	288	0	1549	256
1996	5	20	0	0	53
1997	1	110	0	0	0

Pole and Line (number of fish)

Year	no. vessels	albacore	bigeye	skipjack	yellowfin
1993	7	8802	0	280	60
1994	13	10 105	0	1887	49
1995	15	18 033	0	6973	653
1996	9	7209	0	32 859	328
1997	3	0	0	13 248	4

longline (number of fish)

Year	no. vessels	albacore	bigeye	skipjack	yellowfin
1993	22	24 627	808	0	71
1994	39	55 149	1353	60	1681
1995	56	64 598	916	283	3317
1996	50	6648	1629	399	4619
1997	21	0	272	21	1146

Trolling (number of fish)

Year	no. vessels	albacore	bigeye	skipjack	yellowfin
1993	425	732 221	24	5962	2047
1994	500	1 313 306	120	26 724	3220
1995	478	1 390 604	14	16 947	5622
1996	429	1 727 275	172	26356	11 897
1997	268	737 739	45	2945	4258

Purse seine (tonnes)

Year	no. vessels	albacore	bigeye	skipjack	yellowfin
1993	5	0	0	894.5	0
1994	6	0	0	2770.2	0
1995	6	0	0	1283.5	0
1996	6	0	0	3340.2	6.3
1997	6	0	5393.7 0	5393.7	0