

**10th MEETING OF THE SPC
STANDING COMMITTEE ON TUNA AND BILLFISH
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NATIONAL TUNA FISHERY REPORT - NEW ZEALAND

1. 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 hence fetched low prices. New Zealand's entry into winter fishing by handline and trolling for southern bluefin marked our entry into the high valued specialist "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 3-5 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, and costs of licenses and observers. During the same period New Zealand fishers have expanded their longline fishing effort from fewer than 10 vessels to 50-60 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.

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, data are from Ministry of Fisheries Licensed Fish Receiver Reports.

	Albacore	Bigeye	Skipjack	Yellowfin	Swordfish
Jan.	26.4	11.4	23.5	19.8	3.3
Feb.	35.5	12.3	23.4	21.7	8.9
Mar.	22.5	11.2	36.3	16.7	16.3
Apr.	7.8	9.6	12.1	6.9	13.3
May	2.3	10.3	1.9	1.7	13.2
June	1.1	7.2	0.2	0.5	10.4
July	0.5	3.3	0.2	0.0	7.5
Aug.	0.3	4.4	0.0	0.0	16.0
Sept.	0.1	6.5	0.1	0.4	4.6
Oct.	0.1	3.1	0.2	18.3	1.2
Nov.	0.2	9.1	0.1	4.3	2.6
Dec.	3.2	11.4	2.1	9.6	2.7

2. Total tuna catch, 1992-1996

Table 2 shows the New Zealand domestic tuna landings since 1992 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 1992 in tonnes (green weight), data are from Ministry of Fisheries Licensed Fish Receiver Reports.

	Albacore	Bigeye	Skipjack	Yellowfin	Swordfish
1992	3470.8	30.2	988.4	19.7	25.9
1993	3386.7	73.9	945.6	124.2	92.9
1994	5323.0	70.7	3136.6	53.1	93.8
1995	6277.7	59.0	1318.2	135.9	107.1
1996	6278.6	80.2	3648.4	189.9	179.2

3. Fleet Structure

Fleet structure has not been analysed. However, the following general comments can be made regarding the range of vessels operating in the domestic tuna fisheries.. The albacore troll fishery is a summer fishery with a wide range of mostly small vessels. Up to 200 vessels (mostly about 15 m length) enter this fishery from a range of other domestic fisheries. The longline fishery involves two fleets, about 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. 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 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.

4. Catch by species and gear type

Estimated catches by species and gear type for the New Zealand EEZ since 1990 are shown in Table 3.

5. 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 is similarly treated.

6. 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.

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Table 3. Estimated landings, by method, of tunas caught in the New Zealand EEZ. Data are from Ministry of Fisheries Catch and Effort Landing Returns (estimated catch for HL, PL, T and PS) and Tuna Longline Catch and Effort Returns (actual catch)

A. Handlining (number of fish)

year	ALB	BIG	SKJ	YFN	No. of vessels
1990			2		1
1991	1162		30	33	18
1992	75				16
1993	915			103	12
1994	292			22	13
1995	288		1549	256	18
1996	20			53	5
1997	110				1

B. Pole and Line (number of fish)

year	ALB	BIG	SKJ	YFN	No of Vessels
1990					
1991	1231		42		3
1992	776				1
1993	8802		280	60	7
1994	10105		1887	49	13
1995	18033		6973	653	15
1996	7209		32859	328	9
1997			13248	4	3

C. Surface long lining (number of fish)

year	ALB	BIG	SKJ	YFN	No. of vessels
1990					
1991	42	8		4	6
1992	5243	659		66	11
1993	24627	808		71	22
1994	55149	1353	60	1681	39
1995	64598	916	283	3317	56
1996	6648	1629	399	4619	50
1997		272	21	1146	21

D. Trolling (number of fish)

year	ALB	BIG	SKJ	YFN	No. of vessels
1990	16552		617	238	34
1991	784289	1	7033	563	246
1992	1088318	1	3807	5500	294
1993	732221	24	5962	2047	425
1994	1313306	120	26724	3220	500
1995	1390604	14	16947	5622	478
1996	1727275	172	26356	11897	429
1997	737739	45	2945	4258	268

E. Purse Seine (tonnes)

year	ALB	BIG	SKJ	YFN	No. of vessels
1990			187.0		3
1991			6903.1		6
1992			1061		7
1993			894.5		5
1994			2770.2		6
1995			1283.5		6
1996			3340.2	6.3	6
1997			5393.7		6