**COMMISSION FOR THE CONSERVATION AND MANAGEMENT OF HIGHLY MIGRATORY FISH STOCKS IN THE WESTERN AND CENTRAL PACIFIC OCEAN**

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# NATIONAL REPORT

# NEW ZEALAND

## Introduction

1 New Zealand tuna fisheries are based on the principal market species: albacore *(Thunnus alalunga*), bigeye *(T. obesus*), Pacific bluefin *(T. orientalis*), southern bluefin (*T. maccoyii*), skipjack *(Katsuwonus pelamis*) and yellowfin tunas *(T. albacares*). Different gear types including purse seine, troll, longline, and occasionally pole-&-line and handline are used to catch these species. Other highly migratory species are taken as bycatch of target tuna fisheries or support targeted recreational fisheries. Most fisheries for highly migratory species are highly seasonal and rely on migrations of fish to New Zealand fisheries waters from adjacent areas of the Pacific Ocean.

2 Tuna longline species, swordfish and key bycatch species entered into the Quota Management System (QMS) from October 2004 (bigeye, southern bluefin, Pacific bluefin and yellowfin tunas and swordfish: blue, mako and porbeagle sharks, moonfish and Ray's bream). Albacore and skipjack tuna are not currently scheduled for entry into the QMS. Before October 2004, only southern bluefin tuna *(T. maccoyii*), was subject to catch restrictions, with a 420 t national catch limit set by the Commission for the Conservation of Southern Bluefin Tuna.

3 Striped marlin (*Tetrapturus audax*) is the main target species of a well-established recreational sport fishery in northern New Zealand. While billfish are also regularly a non-target catch on tuna longlines, no commercially caught marlin species can be kept (whether alive or dead) when caught. Swordfish (*Xiphias gladius*) catches are an important component of the domestic tuna longline fishery.

4 New Zealand tuna fisheries target commercially valuable tuna species when they are present in the EEZ, and tuna fishing, once regarded as minor seasonal fisheries controlled by climatic factors and weather, is now an important year-round activity. In addition to tuna fishing in the EEZ, New Zealand fishers (1989 to 1997) fishing over 1000 miles east of New Zealand, helped to establish the high seas troll fishery for albacore that is now primarily the domain of troll vessels from the USA. A more recent development has been the entry of New Zealand (formerly USA and Canadian) Class-6 purse seiners fishing in the equatorial western Pacific for skipjack and yellowfin tuna.

5 A number of domestic vessels have also fished outside the New Zealand EEZ using troll, or longline in most years, mostly in waters adjacent to the EEZ.

**New Zealand permitting, vessel registration and catch reporting arrangements**

6 Commercial fishers may only fish in New Zealand fisheries waters under the authority of a fishing permit and all vessels used for commercial fishing must be registered on the New Zealand fishing vessel register. Fishers using New Zealand flagged vessels for fishing on the high seas are required to hold a New Zealand High Seas Fishing Permit issued under the terms of the Fisheries Act 1996.

7 New Zealand implemented specific regulations in 2004 to give effect to obligations under the WCPFC Convention in relation to authorisations to fish within the Convention Area and reporting obligations. The regulations have the following components:

- All fishing by New Zealand flagged vessels within the Western Central Pacific Fisheries Convention Area beyond the New Zealand EEZ for fish stocks managed under the Convention must be properly authorised – either by means of a New Zealand High Seas Permit for fishing on the High Seas or with proper authorisation from the coastal state for fishing in areas under national jurisdiction;

- All New Zealand flagged vessels authorised and intending to fish anywhere in the Convention Area beyond the New Zealand EEZ for the fish stocks managed under the Convention must be registered on the 'New Zealand Western Central Pacific Fisheries Convention Vessel Register'. Applications for entry onto the register must be made on an approved form, enabling the Ministry of Fisheries to gather all the vessel information required under the Convention;

- The New Zealand Western Central Pacific Fisheries Convention Vessel Register records all New Zealand flagged vessels authorised by New Zealand (or by another coastal state in the region for fishing within their EEZ) to fish within the Convention Area for fish stocks covered by the Convention;

- New Zealand flagged fishing vessels fishing for the relevant fishstocks in areas under the national jurisdiction of another state within the Convention area are required to report catch and effort information to the Ministry of Fisheries. Exemptions may be granted if the vessel is reporting to the coastal state and that state is also a member of the Commission.

8 Current rules require that fish taken within New Zealand fisheries waters be landed in New Zealand. New Zealand reporting arrangements require catch (both target and bycatch), effort and landings to be reported for each fishing trip. In New Zealand fish may only be sold to a licensed fish receiver and each fish receiver must provide monthly reports of fish purchases from each fisher. Fish taken by New Zealand permit holders on the high seas and landed at ports outside New Zealand report catch, effort and landings only. Catch verification through sales documentation is not a current requirement.

9 Since October 2001, fishing permit holders have been required to fill out Monthly Harvest Returns. These returns provide a further verification of landed catch for both quota and non-quota species. The landed weight of fish taken outside the New Zealand EEZ but landed in New Zealand can be differentiated from landings of fish taken within the New Zealand EEZ. The landed weight of fish taken outside New Zealand fisheries waters and sold offshore (not through New Zealand licensed fish receivers) can be estimated through FFA logsheet data and from logsheets provided to the Ministry of Fisheries by the companies operating vessels in these areas.

**Fleet structure**

10 Four New Zealand flagged Class-6 purse seiners have fished under license in the EEZs of Pacific Island countries and in high seas areas of the equatorial western and central Pacific Ocean using purse seine since 2000. These vessels usually fish part of the year within New Zealand fisheries waters targeting skipjack together with five to seven smaller capacity domestic-based purse seiners. The number of purse-seiners has been stable over the period at around 10 vessels in each year (Table 1).

11 The remainder of the tuna fleet consists of around 300 domestically owned and operated vessels (mostly 15 to 25 m LOA) that fish for tuna using troll and longline gear, some of them switching between gear types with the season or indeed operating part of the year in non-tuna fisheries. The limited amount of pole & line and handline fishing done is also an occasional activity of these same vessels, rather than by dedicated vessels.

12 There has been no foreign licensed access for tuna longline fishing in the EEZ since 1995. A small fleet of foreign owned and operated longline vessels on charter to a New Zealand fishing company have operated in the New Zealand EEZ since the late 1980s. These longliners have almost exclusively targeted southern bluefin tuna although on occasion a few have been chartered to target other tuna species in some years. Unites States flagged purse seine vessels fish occasionally in New Zealand waters under the terms of the Multilateral Treaty between the Government of the United States and the Governments of Certain Pacific Island Countries.

13 Following the development of domestic longlining in the early 1990s, the domestic tuna fleet operating in New Zealand fisheries waters peaked in 2001 and has subsequently declined. The rapid expansion particularly in the late 1990s through to 2000 arose because tuna fisheries were among the few open access fisheries in New Zealand at that time. It is also likely to have been encouraged due to the potential for claiming an allowance of quota on the basis of fishing history once these species entered the QMS. From the time that the position of fishers was clarified (only fishing history prior to 30 September 2000 was used for determining allocations) the number of longline vessels targeting tuna has declined, as it was expected to.

14 Table 1 presents a summary of vessel numbers by size class (GRT) for the main tuna gear types since 2002 and shows that most of the reduction occurred in vessels smaller than 50 GRT, although some reduction was also seen in larger vessels. Elimination of smaller longline vessels is likely to be due to the more limited range of weather conditions and more restricted areas of operation in which they would be able to operate effectively relative to larger vessels.

15 Over half of all vessels fishing for tuna since 2002 (53–59%) have used trolling exclusively with 11–19% of vessels using longline exclusively, while 15–21% use both methods. Relatively few vessels use other gears to catch tuna in New Zealand waters. Although only a few vessels purse seine for tuna in New Zealand waters, purse seining accounts for most of the landings in New Zealand (over 65% of all tuna in tonnage).

**Annual catches by New Zealand flagged vessels in the WCPFC Convention Area, 2000–2004**

16 The catch by species taken within and beyond the New Zealand EEZ is summarized in Table 2. Since 2002, skipjack, nearly all taken by purse seine, has comprised the greatest part of the catch of all tuna species, both inside and outside the EEZ. Outside the EEZ, yellowfin makes up most of the balance, but are not part of the purse seine catch in New Zealand waters. Inside the EEZ, purse seine catches are comprised almost exclusively of skipjack.

**Table 1. Number of New Zealand flagged vessels fishing for tuna by vessel size class (GRT) and gear type. Note that many vessels use both troll and longline and will be included in both totals.**

| Fishing Method | Calendar Year | Total | 0 - 50 GRT | 51 - 200 GRT | 201 - 500 GRT | 500+ GRT |
|---|---|---|---|---|---|---|
| Surface Longline | 2002 | 156 | 105 | 46 | 5 | 0 |
| Surface Longline | 2003 | 132 | 77 | 48 | 5 | 2 |
| Surface Longline | 2004 | 99 | 55 | 39 | 5 | 0 |

| Fishing Method | Calendar Year | Total | 0 - 50 GRT | 51 - 100 GRT | 101 - 150 GRT | 150+ GRT |
|---|---|---|---|---|---|---|
| Troll | 2002 | 325 | 284 | 35 | 4 | 2 |
| Troll | 2003 | 283 | 240 | 38 | 3 | 2 |
| Troll | 2004 | 250 | 213 | 33 | 4 | 0 |

| Fishing Method | Calendar Year | Total | 101 - 200 GRT | 201 - 300 GRT | 301 - 400 GRT | 400+ GRT |
|---|---|---|---|---|---|---|
| Purse Seining | 2002 | 11 | 1 | 3 | 2 | 5 |
| Purse Seining | 2003 | 9 | 0 | 3 | 2 | 4 |
| Purse Seining | 2004 | 11 | 1 | 3 | 2 | 5 |

| Fishing Method | Calendar Year | Total | 0 - 50 GRT | 50+ GRT |
|---|---|---|---|---|
| Pole & Line | 2002 | 3 | 3 | 0 |
| Pole & Line | 2003 | 2 | 2 | 0 |
| Pole & Line | 2004 | 4 | 4 | 0 |

**Table 2: Estimated whole weight (t) of tuna and swordfish caught by New Zealand flagged vessels in the western and central Pacific Ocean, by species, 2002–2004 (0 refers to catches < 500 kg).**

| | | 2002 | 2003 | 2004 |
|---|---|---|---|---|
| Albacore | EEZ | 5 544 | 6 693 | 4 451 |
| | ET | 22 | 0 | 1 |
| | **Total** | **5 566** | **6 693** | **4 452** |
| Bigeye* | EEZ | 200 | 205 | 185 |
| | ET | 428 | 608 | 0 |
| | **Total** | **628** | **813** | **571** |
| Skipjack | EEZ | 3 321 | 4 035 | 9 424 |
| | ET | 15 812 | 15 445 | 10 865 |
| | **Total** | **19 133** | **19 480** | **20 288** |
| Pacific bluefin | EEZ | 56 | 41 | 67 |
| | ET | 0 | 0 | 0 |
| | **Total** | **56** | **41** | **67** |
| Southern bluefin | EEZ | 463 | 390 | 401 |
| | ET | 2 | 0 | 0 |
| | **Total** | **465** | **390** | **401** |
| Yellowfin* | EEZ | 25 | 40 | 57 |
| | ET | 3 107 | 2 945 | 2 500 |
| | **Total** | **3 132** | **2 985** | **2 557** |
| Swordfish | EEZ | 917 | 635 | 532 |
| | ET | 8 | 1 | 6 |
| | **Total** | **924** | **637** | **538** |

* ET purse-seine catches of bigeye and yellowfin tuna are combined for 2004

17 Inside the New Zealand EEZ, albacore is the second most important component of the tuna catch and is taken mostly by troll gear, but also by longline. Troll gear also takes small amounts of skipjack with occasional catches of other tuna species. Longline is mostly targeted at bigeye and

southern bluefin tunas, but the greatest part of the catch consists of albacore and swordfish. Pacific bluefin, and yellowfin tunas are taken in small numbers in longline sets, and skipjack is a very occasional catch.

### *Catch and effort in New Zealand fisheries waters by gear type in 2004*

18 Tuna and billfish catches within New Zealand fisheries waters in 2004 are summarized in Table 3 by gear type for all tuna fishing methods. In addition a small amount of incidental catch, primarily of swordfish, also occurs in various trawl fisheries. Longline effort in New Zealand is largely targeted at bigeye and southern bluefin tunas, and accounts for almost all of the catch of those species (over 90% by weight in 2004). Most albacore was taken by trolling: (70% by weight in 2004), with the balance mainly taken by longline. Skipjack was taken almost entirely (over 99% by weight) by purse seine in 2004. Small amounts of skipjack are also taken by longline and trolling. Due to the prohibition on landing marlin taken in New Zealand waters, no marlin landings were reported. A minor amount of short-billed spearfish (< 150 kg) was landed. Nearly all of the swordfish catch in 2004 was taken by longline.

**Table 3. Estimated landings of tuna and billfish (whole weight, tonnes) in New Zealand fisheries waters in 2004 by tuna fishing method.**

| | Longline | Handline | Troll | Purse seine | Pole-&-line | Total |
|---|---|---|---|---|---|---|
| Albacore | 1360.0 | 0.0 | 3091.0 | 0.0 | 0.5 | 4451.4 |
| Bigeye | 177.3 | 0.0 | 7.8 | 0.0 | 0.0 | 185.2 |
| Pacific bluefin | 43.6 | 22.2 | 1.6 | 0.0 | 0.0 | 67.3 |
| Southern bluefin | 399.5 | 0.5 | 1.0 | 0.0 | 0.0 | 401.0 |
| Skipjack | < 0.1 | 0.0 | < 0.1 | 9423.6 | < 0.1 | 9423.6 |
| Yellowfin | 56.6 | 0.0 | < 0.1 | 0 | 0 | 56.6 |

### *Catch in waters beyond the New Zealand EEZ by gear type in 2004*

19 In 2004 minor catches were made of a number of tuna and swordfish by longline and troll fisheries in high seas areas adjacent to the New Zealand EEZ. In contrast, New Zealand owned and operated Class-6 purse seiners caught substantial quantities of skipjack (10 865 t) and yellowfin and bigeye tuna combined (2 498 t) in high seas areas and in the EEZs of FFA member States under license arrangements.

### *The Longline fishery*

20 The longline fleet consists mainly of domestic owner-operated vessels of between 15 and 25 m overall length, and a few (seven in 2004) larger vessels of around 55 m long. The majority of the larger vessels fishing within the NZ EEZ in 2004 were foreign owned vessels fishing under charter to New Zealand fishing companies.

21 Effort in the longline fishery is in two non-overlapping target fisheries: a more northerly, warmer water fishery for bigeye, and a cooler water fishery for southern bluefin tuna that occurs only in autumn/winter. Other species are often reported as target species, but those records are sporadic, may in some cases be spurious, but in any event, overlap the spatial-temporal windows of the two main target fisheries, with no demonstrable differences in fishing practice between them.

22 Albacore and swordfish comprise most of the tuna catch on longlines (by weight), and are caught in both the bigeye and the (NE) southern bluefin fisheries. The highest catch rates of

albacore are reported along the southern limit of these fisheries, while swordfish catch rates are homogenous throughout. Both albacore and swordfish are also caught, though at much lower rates, in the (SE) southern bluefin fishery.

23 Bigeye and southern bluefin tuna, taken in targeted fishing, comprise the third or fourth largest (tuna) catch. There is little overlap of the occurrence of these two species. Yellowfin tuna are caught, although less commonly, throughout the spatial and temporal extent of the bigeye fishery, but with the higher catch rates in more northern latitudes. Pacific bluefin are taken in small numbers throughout the bigeye and (NE) southern bluefin fisheries, but less commonly in the (SW) southern bluefin fishery.

***The Troll fishery***

24 The troll season, starting in November or December, is approximated in this report by the New Zealand fishing year, which extends from 1 October to 30 September. The troll fleet in the 2003–04 season included 253 vessels, 58 of which also fished using longline gear during the year.

25 Practically all (99.9%) of the troll effort is targeted at albacore. Albacore is the main tuna species taken, along with small amounts of skipjack (less than 100 tonnes per year), with occasional catches of other tuna species and swordfish (Table 4).

***The Purse Seine fishery***

26 The purse seine fleet in 2004 consisted of 11 domestically owned and operated vessels and this year included four Class-6 purse seiners. The participation of two of these additional large vessels for parts of the season has almost doubled the annual effort, and more than doubled the annual catch compared with the previous three years. All purse seine effort is targeted at free schools of skipjack although occasional catches of albacore and yellowfin have been reported.

***Fish bycatch in New Zealand tuna fisheries***

27 Bycatch is a feature of many tuna fisheries, particularly those using longline and purse seine. Fishers are required to furnish returns for all species taken and landed (both target and bycatch). In New Zealand tuna fisheries only longline fisheries have received adequate observer coverage in recent years to enable independent characterisation of the bycatch including discards of non-commercial species. The Ministry of Fisheries is planning to extend observer coverage to the purse seine fishery to update information available for the early 1980s and is in the process of developing observer data collection forms for the troll fishery using SPC forms as a starting point. The target observer coverage for the longline fishery is 10% of the catch.

28 Fish and non-fish bycatch in the New Zealand longline fishery is regularly assessed and a summary of tuna longline catch for 2000-2002 was presented to the Ecosystem Working Group at SCTB-17 (paper ECO-6). Briefly, the top non-tuna or billfish species taken in the tuna longline fishery are blue shark, Ray's bream, porbeagle shark, dealfish, lancetfish, and moonfish.

***Non-fish bycatch***

29 Seabird bycatch occurs in some New Zealand fisheries for highly migratory species. A National Plan of Action for Seabirds has been developed and approved by Government to guide official and industry actions with regard to mitigating the potential impacts of fishing on seabird populations.

30 The use of tori lines in New Zealand tuna longline fisheries is compulsory. Other voluntary measures apply to mitigate the potential for seabird bycatch. Observer coverage is intended to provide independent assessment of the levels of seabird bycatch.

31 Seal bycatch occurs in tuna longline fisheries but most are taken on the haul and are released alive. Again observer information is collected to provide independent assessment on the levels of impact.

***Biological data***

32 Observers undertake biological sampling of tuna and bycatch species. Port sampling also occurs for albacore and this information is provided as part of the inputs to the stock assessment for the southern albacore stock.

33 Furthermore, studies of the biological characteristics of blue shark, Ray's bream, porbeagle shark, shortfin mako shark, moonfish, and swordfish to determine their likely vulnerability to overexploitation have been recently undertaken. This information was made available to WCPFC-SC1.

**Future management of highly migratory species**

34 In October 2004, key tuna longline target and bycatch species were introduced into the New Zealand Quota Management System (QMS). These species are southern bluefin tuna, Pacific bluefin tuna, bigeye tuna yellowfin tuna, swordfish, moonfish, Ray's bream, mako shark, porbeagle shark and blue shark. For each of these species a total allowable catch (TAC) has been set and within that TAC, allowances for recreational fishing, customary fishing and other sources of fishing related mortality and a total allowable commercial catch (TACC) have been set. TACCs are allocated as individual transferable quota acquired by either catch history or purchase and fishers are now required to cover any catch with Annual Catch Entitlement (ACE generated by ITQ) or pay a financial penalty.

35 Discarding of species subject to the QMS is prohibited unless specific exemptions apply. Exemptions have been made for pelagic sharks (mako, blue and porbeagle) to provide for live releases and for swordfish below 150cm in lower jaw fork length.

**Monitoring Control and Surveillance Matters**

*Violations*

36 New Zealand has no violations of measures adopted to date to report.

*Port State Measures*

37 New Zealand has undertaken a comparative analysis of New Zealand's port State scheme against those listed in the FAO Model Port Scheme and can now report that the two are closely aligned.

*Control of nationals*

38 In accordance with Article 23(5) of the Convention, New Zealand has implemented domestic legislation to ensure that New Zealand nationals, and fishing vessels owned or controlled by New Zealand nationals fishing in the Convention Area, comply with the provisions of the

Convention

*Maritime surveillance*

39 New Zealand provides fisheries surveillance capability to coastal States within the Convention Area in the form of P3K Orion Norpat patrols. New Zealand cooperates with Australia, France and the Pacific Islands Forum Fisheries Agency to plan and coordinate fisheries surveillance patrols.

**Future prospects and developments**

40 Tuna longline species, swordfish and key bycatch species entered into the QMS from October 2004 (bigeye, southern bluefin, Pacific bluefin and yellowfin tunas and swordfish: blue, mako and porbeagle sharks, moonfish and Ray's bream). It is expected that fishers will rationalize their investments in fishing and optimize their tuna catching, as has occurred in other New Zealand fisheries. A reduction in fleet size is anticipated.

41 New Zealand is also in the process of developing its NPOA-sharks and this could result in changes to the management of sharks taken as bycatch in tuna fisheries.

42 Swordfish can legally be targeted from the date of entry into the QMS, they could previously only be taken as bycatch. This may result in changes to fishing practices in the longline fishery that could affect the catch rates of other tuna species.

43 The significant increase seen in 2004 in purse seine fishing effort by New Zealand flagged Class-6 purse seiners within the New Zealand EEZ is expected to increase in 2005. Only two large seiners were involved during 2004 but it is likely that all four New Zealand flagged Class-6 vessels will be fishing in this manner next year.

44 Most tuna fishing to date has been conducted around the New Zealand coastal zone. There is an extensive area of New Zealand fisheries waters surrounding the Kermedec Islands that has had little fishing to date and future development of this area is anticipated. Linked to the ongoing rationalization of the New Zealand domestic longline fleet within the New Zealand EEZ is the responsible and managed development of the New Zealand high seas tuna fishery.