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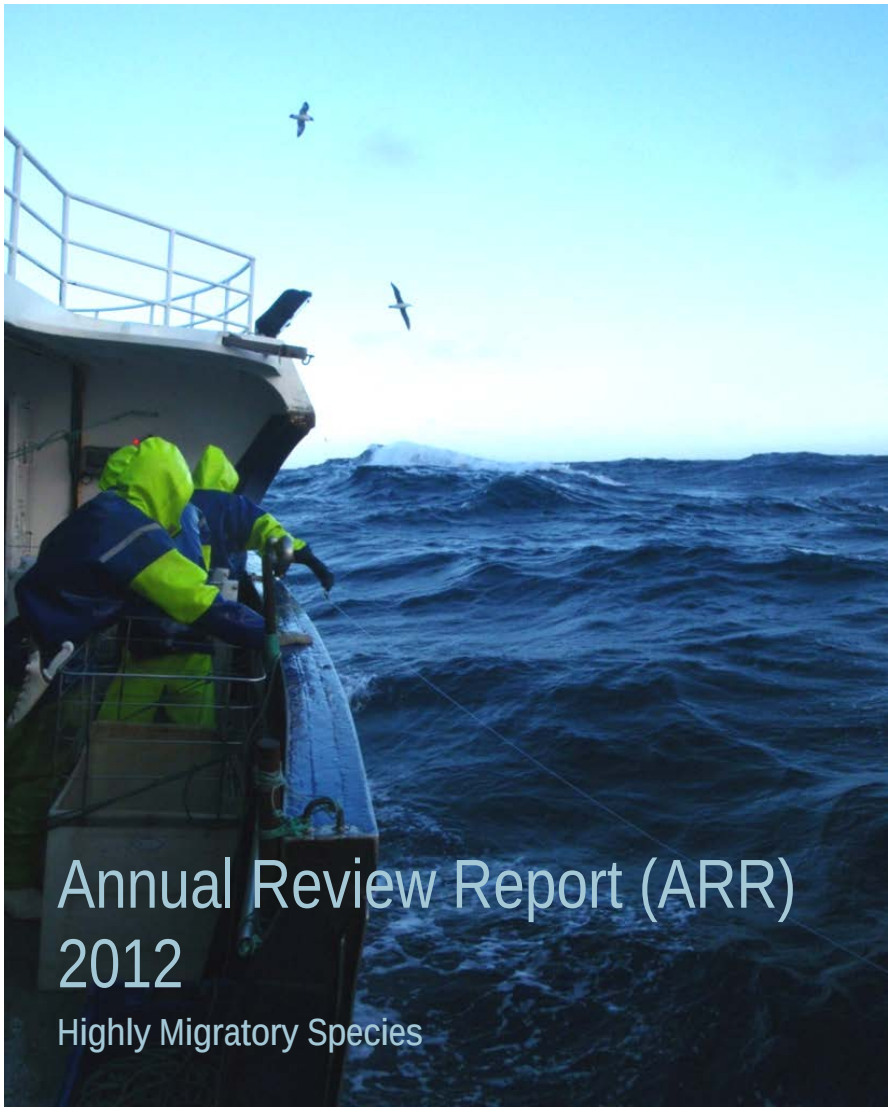

Annual Review Report (ARR) 2012

Highly Migratory Species

MPI Technical Paper 2012/51

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Growing and Protecting New Zealand

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Introduction

The National Fisheries Plan for Highly Migratory Species provides the framework for the management of fisheries for highly migratory species (HMS) in New Zealand fisheries waters for a five-year period, as well as providing a framework for New Zealand's advocacy for management of HMS in international fora. The national plan is supported by three fishery-specific chapters (large pelagics, skipjack and albacore). The planning framework is given effect through Annual Operational Plans, while Annual Review Reports provide a summary of progress and ensure management is transparent.

This annual review report includes:

- An introductory summary of the season including fisher reports and round-up of relevant international meetings;
- On-going and emerging issues;
- Monitoring against performance criteria identified in the National Fisheries Plan and fishery-specific Operational Management Plans;
- HMS Species Profiles.

In general, the annual review report contains information on the most recent fishing year i.e. the 2011/12 fishing year, which runs from 1 October 2011 to 30 September 2012. In some cases data are not yet available for this period (e.g. data on international fisheries; data on protected species captures). In this situation, the most recent information available is reported.

Summary of the 2011/12 season

PELAGIC LONGLINE FISHERIES

- Catches of yellowfin continue to decline with the 2011/12 catch at less than 1% of the allowed catch (2.2 t from a total allowable catch – TAC – of 263 t). In contrast, the southern bluefin tuna fishery experienced very good catch rates and the highest catches to date with a total 2011/12 catch of 775 t up from last years 547 t. After a slight increase in the 2010/11 season, bigeye catches have dropped again (2011/12 catch of 157 t) to just below 2009/10 levels.

GAMEFISHERIES

- The 2011/12 year was relatively poor fishing season, with consistent strong south-east (onshore) winds disrupting much of the fishing season on the important east coast fishing grounds. Overall, 1945 fish were reported tagged (1325 excluding kingfish) and 58 recaptured.
- The numbers of striped marlin fell compared to the previous season, 33% below the ten year mean.
- Forty nine swordfish were tagged, the best total for any year to date.
- For the second year running no yellowfin tuna were tagged.
- The number of mako sharks tagged was down on the 2010/11 year, but remained well above the ten-year mean.
- The number of blue sharks, other sharks and Pacific bluefin tuna were about the same as the previous year.

SKIPJACK

- Skipjack catches within New Zealand waters decreased from a bumper season of 12,326 t in 2010/11 down to 9866 t for the 2011/12 fishing year.
- The 2011 Western and Central Pacific catch of skipjack (1,540,189 mt) was only the fifth highest recorded and around 215,000 mt less than the record catch of 2009 (1,756,628 mt).

ALBACORE

- The 2011/12 season has seen a shift away from last year's La Nina period (which is typically associated with higher catch rates). Catches decreased slightly; though remain above 3000 t. The 2011/12 catch was 3124 t as compared to 3427 t for the 2010/11 season; catches are still a fair way below those experienced 10 years ago (~5000–6000 t).
- Early estimates of south Pacific albacore catch in 2011 were 75,258 t but the most recent catch estimates are believed to be around 90,000 t.

MAJOR OUTCOMES OF COMMISSION FOR THE CONSERVATION OF SOUTHERN BLUEFIN TUNA (CCSBT) MEETINGS

- In 2011, CCSBT adopted a science-based management procedure (MP) that is designed to rebuild the spawning stock to 20% of its unfished level by 2035 (with 70% certainty).
- Results from the latest stock indicators were mixed with aerial survey results substantially lower than recent years but continuing improvements in CPUE. There were no "exceptional circumstances" this year that would have forced a review of the MP operating model. The MP will be rerun at next year's Science Committee meeting and will likely include new information from the recently completed close-kin analysis.
- Quotas have been set in 3-year blocks according to the management procedure with global catches in 2013 set to 10,949t (830t NZ allocation) and 12,449t in 2014 (909t NZ allocation) subject to scientific advice following the next Science Committee meeting. CCSBT's current agreement is that the catch limit for 2014 will be 12,449 tonnes or the catch limit for the second three year period whichever is least.
- The certainty in allocation from the management procedure has allowed the CCSBT to place additional effort into improving compliance and existing management measures. This year's Commission Meeting approved the trial of independent Quality Assurance Reviews (i.e. audits) of individual member's compliance systems, and agreed a New Zealand resolution to provide information to CCSBT on all sources of mortality for southern bluefin tuna.

MAJOR OUTCOMES OF THE WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION (WCPFC) MEETINGS

- Key issues for the upcoming Ninth Regular Session of the WCPF Commission (Manila 3-7 December 2012) are ongoing negotiation of a new Conservation and Management Measure for bigeye, yellowfin and skipjack tunas (CMM 2012-01)[1], management of the southern albacore fishery, and the setting of Limit Reference Points for key target species in the WCPFC.

[1] Originally CMM 2008-01 and most recently CMM 2011-01; the latest version CMM 2012-01 can be found at http://www.wcpfc.int/doc/WCPFC9-2012-12/WCPFC9-2012-12

- CMM 2012-01 will be tabled at the December Regular Session of the Commission. Key changes up for discussion are; a proposal to extend the FAD closure from 3 to 4 months with an alternative to this closure being a proposal to have an allocated amount of purse seine sets that can be fished in association with a FAD. The discussions will also include consideration of what framework to apply to the management of the purse seine fishery on the high seas (including potential to develop a High Seas Vessel Day Scheme), and further discussion on additional cuts to longline catches.
- Immediately prior to the 9th Regular Session of the WCPFC there will be a Management Options Workshop (MOW). The key objectives for this workshop are to understand the role of appropriate reference points and the process of evaluating potential management measures in the achievement of management objectives. The workshop will hopefully result in the production of a list of recommended management objectives (and possibly Limit Reference Points) for presentation to the WCPFC Regular Session.
- South Pacific albacore received little exposure at the Commission meeting in March and will be considered again at this session (see objectives 6.6 and 6.8 for further detail).
- New CMM for protection of seabirds discussed at SC/TCC and will be implemented at Commission meeting next year (led by New Zealand).

Ongoing and emerging Issues

There are a number of issues that are expected to carry over to the 2013/14 planning year and new issues that have arisen during the course of the current year. Specifically these include:

- For HMS sharks, implementing the outcomes of the review of the NPOA-sharks...
- Implementing the outcomes of the NPOA-Seabirds and seabird risk assessments...
- Ongoing negotiations over catch limits for albacore and skipjack
- Implementation of WCPFC and CCSBT decisions on other conservation and management measures...
- Cost recovery review
- Improving performance of the catch documentation system for southern bluefin tuna
- Improving our information base on customary Maori fishing for highly migratory species
- Improving our understanding of pelagic ecosystems
- Catch, bycatch and discard reporting in HMS fisheries
- Elevating the importance of Striped Marlin at the 2013/14 SC-SPTBF meetings.

Monitoring against Objectives

MANAGEMENT OBJECTIVES TO SUPPORT USE OUTCOME

Fisheries resources are used in a manner that provides greatest overall economic, social and cultural benefit

Management Objective 1	Promote a viable and profitable tuna fishery in New Zealand

Management objective 1.1	Reduce administrative barriers to profitability in the HMS fishery

Assessment:

The primary performance indicator for this objective is cost recovery. The majority of levies are lower in 2012/13 with significant decreases in southern bluefin tuna, swordfish, yellowfin and pacific bluefin tuna. The large increase in skipjack levies is due to the upfront funding of an aerial survey for the stock. Table 1 provides detail on the most recent levies for individual HMS stocks.

Table 1: Cost recovery levies for HMS

	MPI Departmental		Observers		Research		Under or (Over) Recovery				
Stock	**Compliance**	**Registry**	**MPI**	**DOC**	**MPI**	**DOC**	**MPI**	**DOC**	**2011/12 total**	**2012/13 total**	**Change**
ALB	$67,668	$30,680	$29,250		$102,598		($10,536)		**$187,873**	**$219,661**	$31,788
BIG1	$101,951	$46,223	$149,520	$26,257	$31,693	$42,673	($97,706)	($4,764)	**$242,236**	**$295,847**	$53,612
BWS1	$9,992	$4,530	$479		$16,081	$203	$394		**$40,721**	**$31,680**	($9,041)
MAK1	$1,301	$590			$2,098	$26	$69		**$5,467**	**$4,084**	($1,383)
MOO1	$9,487	$4,301			$1,210	$193	$646	$1	**$23,659**	**$15,838**	($7,821)
POS1	$1,216	$551			$1,958	$25	$28		**$4,713**	**$3,778**	($935)
RBM1	$10,252	$4,648	$491		$1,318	$209	$350		**$21,911**	**$17,269**	($4,642)
SKJ	$38,459	$17,437	$35,100	$10,561	$269,393		($10,247)		**$151,270**	**$360,702**	$209,433
STN1	$122,847	$55,698	$180,167	$31,639	$35,949	$40,306	($54,767)	($6,121)	**$501,455**	**$405,719**	($95,736)
SWO1	$43,958	$19,930	$64,468	$11,321	$7,451	$11,497	($113,707)	($2,390)	**$142,722**	**$42,527**	($100,195)
TOR1	$34,504	$15,644	$0	$0	$2,832	$702	($15,382)	$1	**$117,883**	**$38,301**	($79,582)
YFN1	$16,137	$7,316	$0	$4,156	$1,348	$4,220	($24,801)	($1,298)	**$21,499**	**$7,079**	($14,420)
TOTAL	**$457,773**	**$207,549**	**$459,475**	**$83,934**	**$473,929**	**$100,055**	**($325,659)**	**($14,570)**	**$1,461,409**	**$1,442,486**	($18,923)
2011/12 total	**$514,582**	**$234,104**	**$488,475**	**$82,411**	**$282,826**	**$34,391**	**($159,395)**	**($16,041)**			
Change	($56,809)	($26,555)	($29,000)	$1,523	$191,103	$65,664	($188,788)	$1,404			

Table 2 indicates the ratio of levies to returns from the fishery during the 2011/12 year (based on the proxy of port price multiplied by total catches). The ratios have dropped across the majority of HMS fisheries and significant reductions were achieved with mako and yellowfin. The increase in the pacific bluefin fishery ratio is largely driven by the reduction in catch from previous years.

The HMS team has also progressed the regulatory amendments necessary to enable the 10% carry-forward of unused southern bluefin tuna ACE following on from a recent decision from the CCSBT. The changes will come into force at the start of the next fishing year and allow fishers to extract maximum value from the New Zealand allocation based on the seasonal variability of the stock and the weather dependent nature of the access to fishing grounds.

Table 2: Levies vs. landed values

Fish Stock	Species	Landings (kg)	Port Price ($/kg)	Landed value (port price * landing)	Levies as % of landed value 2011/12	Levies as % of landed value 2010/11	Change
ALB	Albacore	3,036,413	$2.65	$8,046,494	2.3%	2.5%	-0.2%
BIG1	Bigeye Tuna	275,787	$15.03	$4,145,249	5.8%	13.6%	-7.8%
BWS1	Blue Shark	1,006,665	$0.57	$569,278	7.2%	9.5%	-2.3%
MAK1	Mako Shark	101,637	$0.34	$34,284	15.9%	29.4%	-13.5%
MOO1	Moonfish	82,273	$1.89	$155,903	15.2%	12.5%	2.7%
POS1	Porbeagle Shark	55,375	$0.60	$32,963	14.3%	19.2%	-4.9%
RBM1	Ray's Bream	146,430	$1.10	$161,257	13.6%	18.2%	-4.6%
SKJ	Skipjack tuna	11,814,310	$0.54	$6,379,727	2.4%	3.4%	-1.0%
STN1	Southern Bluefin Tuna	775,146	$31.31	$24,270,835	2.1%	2.1%	0.0%
SWO1	Broadbill Swordfish	689,064	$5.23	$3,602,752	4.0%	6.8%	-2.8%
TOR1	Pacific Bluefin Tuna	13,723	$31.31	$429,685	27.4%	10.6%	16.8%
YFN1	Yellowfin Tuna	2,228	$6.46	$14,392	149.4%	388.0%	-238.6%

Management objective 1.2	Negotiate favourable country allocations for New Zealand fishers

Assessment:

New Zealand national allocation has progressively increased over recent years and over time will move to a nominal catch level of 1000 tonnes and nominal share of 6.5% of the global catch limit. It is anticipated that once this position has been reached future increases (or decreases) will be based on the proportional shares of each member. These may change if and when new members join CCSBT.

Allocation to CCSBT Members

	2012	2013	2014[2]
Japan	2,519	2,689	3,366
Australia	4,528	4,698	5,147
Republic of Korea	911	945	1,036
Fishing Entity of Taiwan	911	945	1,036
New Zealand	800	830	909
Indonesia	685	707	750

[2] The allocations shown for 2014 and the proportional allocation shown for Japan are dependent on the TAC for 2014 and a compliance review at CCSBT 20 in 2013.

Allocation to Cooperating Non-Members

	2012	2013	2014
Philippines	45	45	45
South Africa	40	80	1503
European Community	10	10	10

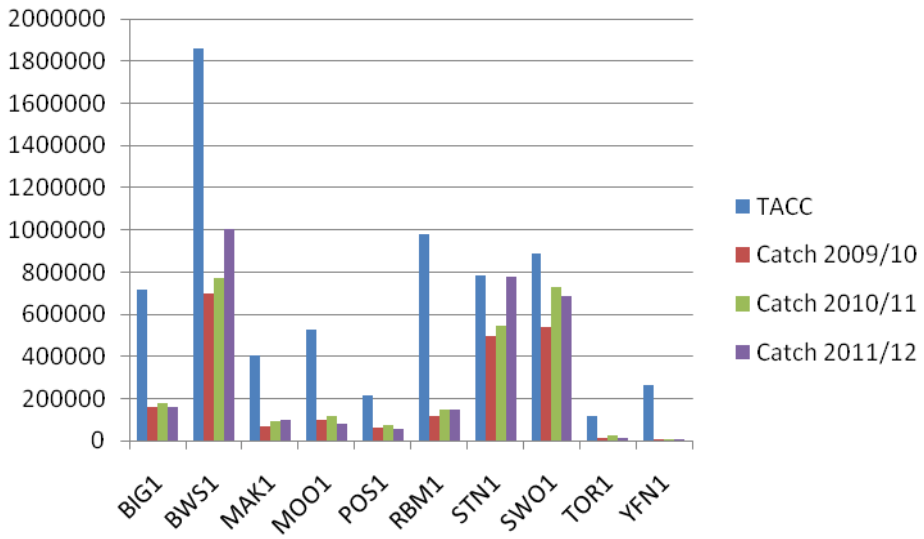
WCPFC continues to use a range of effort controls in most fisheries, rather than rights-based allocations (which New Zealand would favour). New Zealand continues to work with other Pacific Island countries and territories to progress zone-based management of the southern longline fishery with a focus on in-zone (EEZ) limits for south pacific albacore (see also objectives 6.6 and 6.8).

Operational objective 1.3	Ensure catch limits are not exceeded and annual catch entitlements are readily available and used to cover catches

Assessment:

Catches versus total allowable commercial catch limits (TACC) and deemed value payments are outlined in Figure 1 and Table 3. Overall catches remained well within catch limits, and deemed value payments were limited, suggesting annual catch entitlements (ACE) were available and were used to cover catches. Deemed values are generally set higher than ACE prices (by varying amounts), creating an incentive to obtain ACE rather than pay deemed values (Table 4). Deemed values are set at a high level in the southern bluefin tuna fishery in particular, in order to ensure catches remain within the catch limit (which is a national allocation set by the CCSBT).

Figure 1: Catch vs. TACCs for 2009/10 to 2011/12



[3] The increased allocation to South Africa in 2013 and 2014 is subject to its accession to the Convention for the Conservation of Southern Bluefin Tuna.

Deemed value payments across HMS stocks were generally lower in the 2011/12 fishing year than in 2010/11. There were significant reductions in the level of deemed value payments for southern bluefin tuna, swordfish, and pacific bluefin tuna.

Table 3: Deemed value payments in 2011/12

Stock	DV charges	No. of permit holders with DV charges
BIG1	$317.94	2
BWS1	$403.05	10
MAK1	$54.45	7
MOO1	$0	0
POS1	$352.20	6
RBM1	$124.56	10
STN1	$0	0
SWO1	$330	1
TOR1	$0	0
YFN1	$0	0

Readers should note that the information in table 4 is susceptible to variability from year to year based on the limited number of trades in some fisheries and the fact that the transfer price may not reflect the full value of the trade.

Table 4: Standard deemed value (DV) rates compared with average ACE transfer prices in 2011/12

Stock	DV rates/tonne	Average ACE transfer price/tonne
BIG1	15,140.00	$109.89*
BWS1	150.00	$54.80
MAK1	150.00	$53.40
MOO1	500.00	$395.50
POS1	150.00	$66.80
RBM1	180.00	$70.50
STN1	46,920.00	$1769.65*
SWO1	3,000.00	$879.90
TOR1	27,750.00	$209.58*
YFN1	6,740.00	$71.63*

Source: Quota Monitoring Report, except where indicated by * - FIS

Operational objective 1.4	Ensure fair allocation of levy costs for quota owners in HMS fish stocks

Assessment:

As noted under objective 1.1, levies for HMS stocks in 2012-13 are lower overall than they were in 2010-11.

The national fisheries plan identified stakeholder participation in high-level planning of service delivery as one strategy for meeting this objective. Stakeholder participation occurred indirectly through development of the fisheries plan, consultation on cost recovery levies, and directed participation through development of annual operational plans.

Only limited information is available to determine port prices (which, along with total allowable commercial catches – TACCs – for stocks managed under the quota management system (QMS), are used to set cost recovery levies). In addition, port price may not provide an accurate indicator of value in fisheries where the price is set by international markets and licensed fish receivers act more as a broker to on-sell tuna products.

Operational objective 1.5, 1.9	Regularly monitor the need for more active management of skipjack/albacore, based on utilisation criteria

Assessment:

No information has come to light in the last year to suggest that current management of skipjack is not providing for utilisation. Within New Zealand Fisheries Waters there is no indication to suggest that commercial utilisation is not being provided for albacore, especially given the large reduction in longline catch.

There has been some recent input from Te Ohu Kai Moana (TOKM) that current management is not providing for customary utilisation. There are growing concerns in the context of the south pacific albacore stock as a whole that if no constraint is applied, catches will continue to expand and fisheries of south Pacific Island Countries will become uneconomic. New Zealand is committed to a collaborative approach to allocation, conscious of the need to secure agreement on management arrangements for the stock.

Operational objective 1.6, 1.10	Maintain catch-based attribution of cost recovery levies (for skipjack/albacore)

Assessment:

Skipjack and albacore are managed as non-QMS stocks, so catch is still used as the basis for attribution of cost recovery levies.

Operational objective 1.7, 1.11	Devise incentives to add value to/and or reduce wastage (for skipjack/albacore)

Assessment:

Table 5 indicates per unit values for albacore continue to increase; skipjack increased from 2010/11 but is still below the recent average value of $0.68kg. Total export value has increased again for both albacore and skipjack although there was no apparent shift from a volume-based fishery to an added-value fishery for albacore or skipjack in the last year.

The New Zealand albacore troll fishery has been assessed and certified through the Marine Stewardship Council (MSC) since May 2011. There are no existing proposals to pursue certification for New Zealand skipjack fisheries.

Table 5: Landed catch value of skipjack and albacore 2007–2011

Stock	Value	2007/8	2008/9	2009/10	2010/11	2011/12
ALB	$ per kg	$2.11	$2.11	$2.11	$2.31	$2.65
	Total ($000's)	$7,661	$4,739	$4,574	$7,532	$8,046
	Export value ($000's)	$10,702	$8,231	$6,295	$6,392	$13,665
SKJ	$ per kg	$0.68	$0.68	$0.68	$0.51	$0.54
	Total ($000's)	$7,252	$3,186	$4,856	$6,286	$6,379
	Export value ($000's)	$17,506	$8,220	$10,976	$15,055	$23,863

Note: Total = port price x reported catch. Problems with the 2009/10 survey required 2008/9 prices to be rolled over, therefore total must be treated with caution.
Source: FIS, MPI, *NZ Seafood Exports July 2011 to June 2012*

Operational objective 1.8	Manage the impacts of any fishing in new Zealand waters under provisions of the US Tuna Treaty

Assessment:

Negotiations on a new US treaty are continuing (the expiry date of the existing arrangement is June 2013). New Zealand's ongoing involvement is to protect the interests of Tokelau (a New Zealand territory) which has recently joined the Vessel Day Scheme (VDS) administered by the parties to the Nauru Agreement (PNA).

Management Objective 2	Maintain / enhance world class gamefisheries in New Zealand fisheries waters

Management objective 2.1	Maintain / enhance recreational catch rates for HMS gamefisheries

Assessment:

New Zealand continues to have concerns about the potential for range contraction in tropical tuna species with ongoing declines in the availability of yellowfin and bigeye tuna. MPI continue to advocate strongly for research into stock range contraction, mindful that this research may take up to 3 years to produce any significant results.

Tag and release data are outlined below providing information on the catch and release for key species targeted by members of the New Zealand Sport Fishing Council and affiliated clubs.The billfish logbook scheme and annual club catch tallies are some primary sources of information on recreational data. MPI have now completed the phasing-in of charter vessel activity and catch reporting requirements where all game fishing effort and catch (landed and released) of bluefin tuna (southern and Pacific) in all New Zealand waters must be reported.

In addition, the Government has funded a Large Scale Multi Species (LSMS) survey undertaken by the National Research Bureau (NRB). This phone diary survey was undertaken in the 2011/12 fishing year and will provide more accurate information than earlier surveys on catch in the recreational sector.

Operational objective 2.2	Ensure at least 50% of recreational marlin, Pacific bluefin tuna, and HMS shark catch is released

Assessment:

The number of fish tagged and released overall this season (1945) was the lowest since 2002/03 (1325 excluding kingfish). Bad weather disrupted much of the fishing season on the important east coast fishing grounds and likely contributed to these low figures.

The numbers of striped marlin fell compared to the previous season, 33% below the ten year mean. Although the number of mako sharks tagged was down on the 2010/11 season, it remained well above the ten year mean. For the second year running no yellowfin tuna were tagged. According to New Zealand Sport Fishing Council club catch records, very high percentages of the total recreational catch of mako (92%) and blue sharks (90%) were tagged and released rather than landed.

There were 603 striped marlin reported as tagged and released inside New Zealand fisheries waters in the 2011/12 season. This was the lowest total since 2002/03. There were 48 blue marlin tagged and released for the season, and while this was lower than the record year in 2010/11 it was well above the ten-year mean.

Table 6: Number and percentage of fish tagged and released by species and season for fish tagged inside the New Zealand EEZ only

Season	Str. Marlin		Swordfish		Blue shark		Mako shark		Pac. bluefin		Yellowfin	
	#	%	#	%	#	%	#	%	#	%	#	%
2009-10	**858**		**18**		**73**		**76**		**15**		**30**	
2010-11	**725**		**37**		**127**		**98**		**15**		**-**	
2011-12	**603**	**49%**	**49**	*****	**129**	**90%**	**97**	**92%**	**16**	*****	**-**	**-**

Source: Adapted from New Zealand Billfish and Gamefish Tagging, 2011-12; JC Holdsworth & PJ Saul, October 2012 *data is not available for total landings .

Table 7: The number of billfish tagged in New Zealand waters in the last ten years and the combined billfish recaptures by season

	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010-11	2011-12	Average 2003 to 2012
Striped marlin	671	1051	1348	923	965	806	1058	858	725	603	901
Blue marlin	6	8	29	17	26	29	24	32	78	48	30
Shortbill spearfish	14	8	7	11	14	8	5	15	21	5	11
Swordfish	3	2	6	5	16	25	24	18	37	49	19
Billfish recaptures	4	5	4	2	1	4	3	2	1	1	3

Source: New Zealand Billfish and Gamefish Tagging, 2011-12; JC Holdsworth & PJ Saul, October 2012.

Table 8: The number of mako and blue sharks tagged in New Zealand fisheries waters, the percentage tagged according to New Zealand Sport Fishing Council Records, and the number recaptured by season.

Mako	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	Average 2003 to 2012
NZ EEZ	155	188	241	193	150	297	285	494	609	395	301
% tagged	59	70	80	81	82	87	87	90	92	92	82
Recaptures	9	9	6	3		2	5	7	7	8	6
Blue shark	**2002–03**	**2003–04**	**2004–05**	**2005–06**	**2006–07**	**2007–08**	**2008–09**	**2009–10**	**2010–11**	**2010–11**	**2003 to 2012**
NZ EEZ	78	106	102	95	157	108	101	73	127	129	108
% tagged	72	85	80	76	91	90	89	92	91	90	86
Recaptures		2	2	1	2	3	4	3	3	4	3

Source: New Zealand Billfish and Gamefish Tagging, 2011-12; JC Holdsworth & PJ Saul, October 2012.

Management objective 3	Deliver fair opportunities for access to HMS fisheries

Management objective 3.1	Sector groups develop coordinated, collaborative responses to potential conflicts

Assessment:

Past conflict relating to fishing for skipjack has been addressed by the development of a code of practice (see objective 3.3 below). No additional inter-sector conflicts of note have been identified in 2011/12.

A draft process has been developed that outlines the anticipated approach to any inter-sector conflicts that may arise, covering:

- Identifying potential conflicts;
- Scoping the nature of the potential conflict and determining whether active management is required (in either case the outcome would be documented);
- Determining whether the conflict should be managed through the dispute resolution procedures in the Fisheries Act or not;
- Characterising the conflict;
- Convening a stakeholder meeting for discussion if required; and
- Documenting and implementing outcomes

Operational objective 3.2	Discuss with stakeholders and review management of marlin

Assessment:

New Zealand has recently coordinated a review of recreational fisheries in New Zealand and Australia in preparation for a new stock assessment of south Pacific striped marlin which was presented to participants at the annual Scientific Committee meeting (August 2012). This material will provide useful background to future discussions of marlin fishery management.

MPI will be coordinating a workshop in late November with stakeholders to discuss the future management of the marlin fishery with an aim to quantify the relative benefits of alternative

management options, but any decisions must occur in the context of a WCPFC conservation and management measure that applies to the stock (CMM 2006-04)[4]. Limited feedback to date confirms that industry continues to favour change to current management arrangements and the recreational sector remained adamantly opposed, arguing instead for tighter controls.

Operational objective 3.3	Implement a Code of Practice for skipjack fishing

Assessment:

A code of practice to address inter-sector conflicts in relation to fishing for skipjack has been developed but not formally ratified. The operation of the skipjack fishery in the 2010/11 season did not appear to generate further conflict.

MPI has reviewed an industry draft industry code of practice relating to bycatch and has received a revised draft (expanded to cover all protected species) for further discussion.

Management objective 4	Minimise wastage and promote humane treatment

Management objective 4.1, Operational objective 4.2	Encourage full use of catches of HMS and live release of fish that will not be used Encourage full use in the recreational fishery for Pacific bluefin tuna

Assessment:

Reporting of shark releases in the commercial fishery is discussed under objective 4.3 below. NZSFC club catch records continue to show very high percentages of tagged rather than landed sharks with the percentage tagged mako at 92%, and blue sharks at 90% for the 2011/2012 season.

Anecdotal evidence suggests a continuing reduction in the game fishery for Pacific bluefin tuna in 2012, but fishers appear to be continuing to tag and release most of their catch.

Operational objective 4.3	Minimise waste of HMS sharks

Assessment:

Globally, concerns raised about shark finning relate to the sustainability of shark fisheries (see objective 6.4); animal welfare (objective 4.4); and a desire to minimise any waste of sharks that are killed (this objective). New Zealand's primary management control within our exclusive economic zone (EEZ) is to set catch limits under the QMS. Outside of the EEZ, high seas permit conditions require fishers to land fins only if attached to the trunk, in line with a measure adopted by WCPFC.

Blue sharks are easily the largest catch of pelagic sharks by weight in New Zealand fisheries waters. The proportion of shark fins landed compared to other product states has remained fairly constant for blue sharks since their introduction into the QMS in 2004. The proportion of landings of mako shark fins has increased slightly since 2004 but landings of porbeagle

[4] Conservation and Management Measure for Striped Marlin in the South West Pacific (CMM 2006-04): http://www.wcpfc.int/doc/cmm-2006-04/conservation-and-management-measure-striped-marlin-southwest-pacific

shark fins has decreased significantly over the same period. Overall the level of shark bycatch reduced significantly following the rationalisation of the longline fleet when key target and bycatch species were introduced into the QMS.

It is anticipated that a revised NPOA-sharks (now due for release early in 2013) will set directions for addressing waste in fisheries that take sharks as a bycatch.

Figure 2a: Landings of blue sharks by product state, 2004/05 to 2011/12

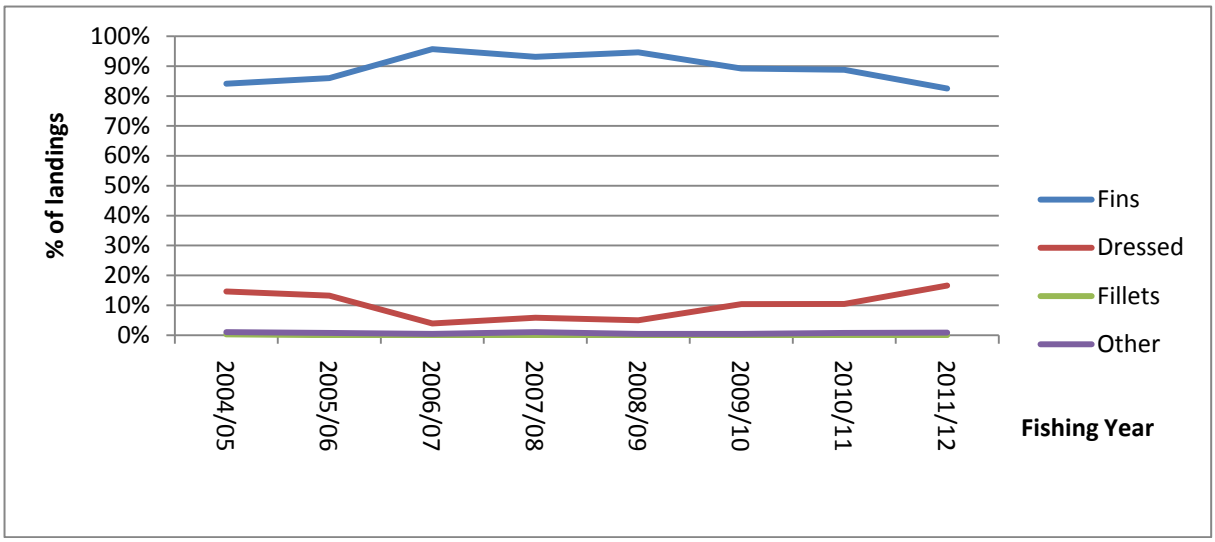


Figure 2b: Landings of mako sharks by product state, 2004/05 to 2011/12

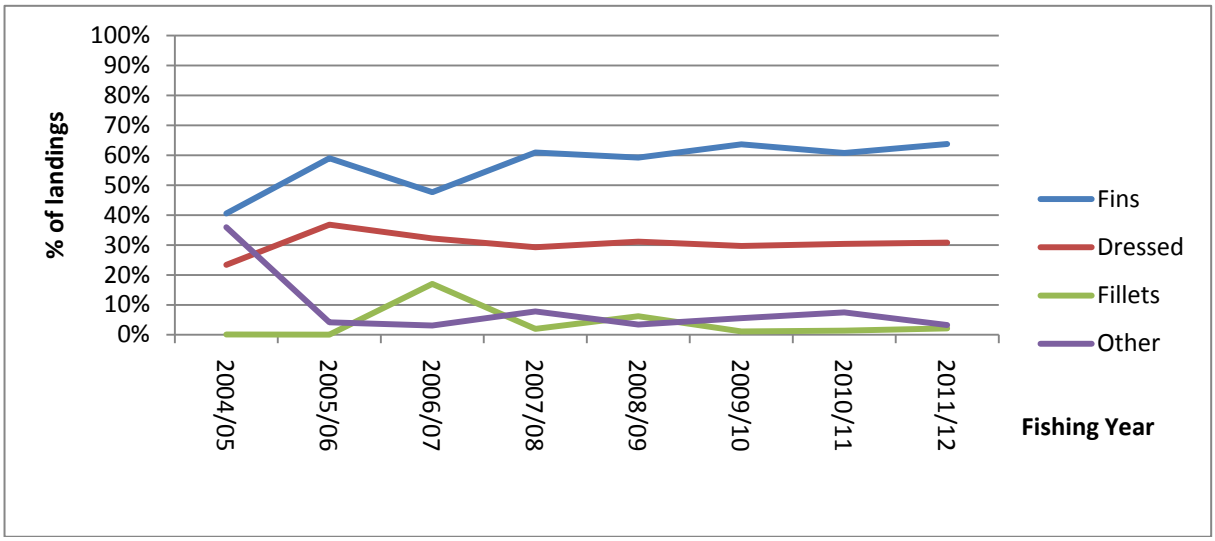
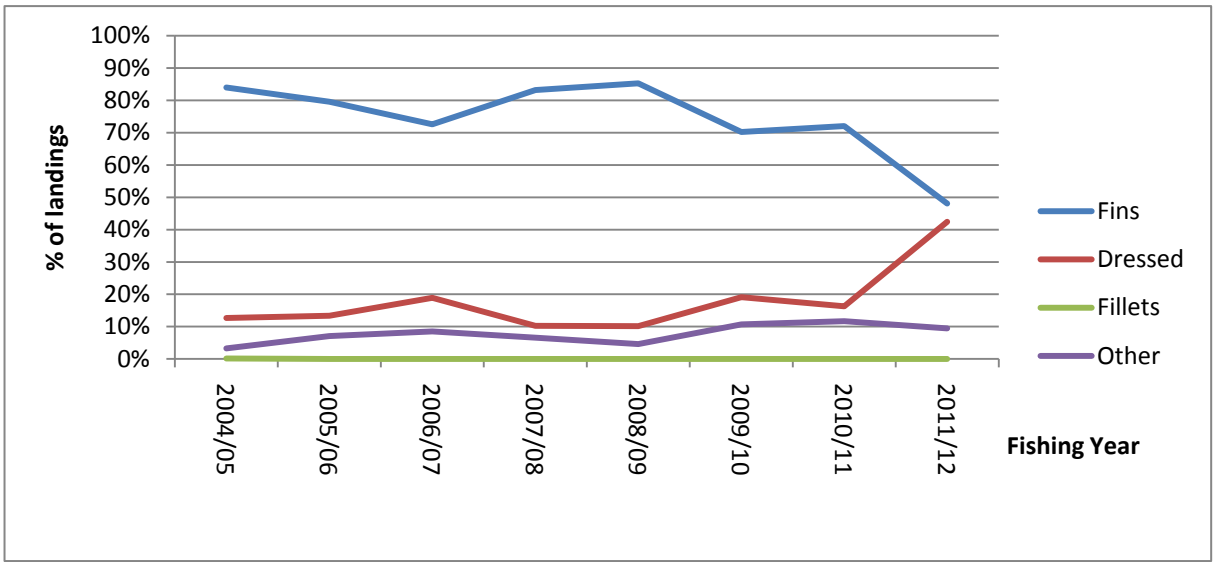


Figure 2c: Landings of porbeagle sharks by product state, 2004/05 to 2011/12



Operational objective 4.4	Implement a shark handling code of conduct for all fishers

Assessment:

Shark handling is included in a commercial code of conduct (1992) for surface longline fisheries which will be updated in 2013. This update will include best practice ways to encourage live release of sharks; though no major changes are expected with regard to shark handling. The HMS national fisheries plan indicated a lower priority for a non-commercial code of conduct, which was scheduled to be developed in 2014/15.

The Ministry is undertaking a review of the Animal Welfare Act. No major changes are proposed for fisheries, which are currently exempt from the Act (as it does not apply to the hunting or killing of animals in a wild state). However, unusual and cruel acts and practices towards wild animals are covered by the Act; for example the removal of fins from live sharks. Live finning of sharks will therefore continue to be an offence under the Animal Welfare Act.

Management objective 5	All Maori interests (including customary, commercial, recreational and environmental) are enhanced

Management objective 5.1	Take into account the unique differences between individual iwi and hapu in management of HMS

Assessment:

To date little specific information has been collected on relationships of tangata whenua with HMS (e.g. species that are of particular importance in some regions). The development of iwi fisheries plans will continue to contribute to meeting this objective over the medium term. In addition, a research project has been developed to help identify specific relationships of iwi and hapu with particular species, including those of relevance to HMS. The project will be a test case initially that will look to develop an appropriate information collection method, which can then be applied nationwide. MPI are currently undergoing a tender review process to assign a researcher and the project is aimed to be initiated in early 2013.

Management objective 5.2	Ensure abundant HMS for customary use

Assessment:

In addition to existing iwi and forum fishery plans, a research project to help identify specific relationships of iwi and hapu with particular HMS species (as described above) will also support iwi in setting rohe Moana boundaries that reflect such relationships and guardianship, thus supporting decisions on appointment of Tangata Kaitiaki/Tiaki and overall customary management.

MANAGEMENT OBJECTIVES TO SUPPORT ENVIRONMENT OUTCOME

The capacity and integrity of the aquatic environment, habitats and species are sustained at levels that provide for current and future use.

Management objective 6	Maintain a sustainable fishery for HMS within environmental standards

Management objective 6.1	Encourage management of HMS at specified target reference points

Assessment:

The current status of HMS stocks in relation to commonly used biological reference points are outlined in table 9 and figures 3 a-d below.

For bigeye, yellowfin and skipjack tuna no stock assessment was conducted and there is no new information to inform stock status for 2012; therefore, stock status and trends management advice and implications from SC7 (2011) are still current.

For southern albacore tuna, the 2012 assessment results are generally similar to, but more optimistic than those of the 2009 and 2011 assessments. The key conclusions are that overfishing is not occurring and the stock is not in an overfished state. Spawning potential depletion levels ($SB_{curr}/SB_{curr\ F=0}$) of albacore were moderate at ~37%. However SC8 noted that depletion levels of the exploitable biomass is estimated between about 10% and 60%, depending on the fishery, having increased sharply in recent years.

Table 9: The best available information on current stock status is summarised below for key HMS stocks

Stock	Overfishing occurring? (i.e. fishing effort too high)	Stock overfished? (i.e. biomass below B_{MSY})
Bigeye tuna	Y[5]	N[6]
Yellowfin tuna	N	N
Albacore tuna	N	N
Skipjack tuna	N	N
Southern bluefin tuna	N[7]	Y[8]
Striped Marlin	N	N[9]

[5] $F_{current}/F_{MSY}$ is estimated at 1.46 (base case; range 1.16-2.10) indicating that overfishing is occurring for the WCPO bigeye tuna stock and that in order to reduce fishing mortality to F_{MSY} the base case indicates that a 32% reduction in fishing mortality is required from the 2006-2009 level.

[6] Current stock status indicates that current total and spawning biomass are higher than associated MSY levels ($B_{current}/B_{MSY}$ = 1.34 and $SB_{current}/SB_{MSY}$ = 1.37). However, if recent recruitment is assumed to represent the true productivity of the bigeye stock then alternative runs based on these assumptions would conclude that bigeye tuna is already in an overfished state ($B_{current}/B_{MSY}$ = 0.67 and $SB_{current}/SB_{MSY}$ = 0.61).

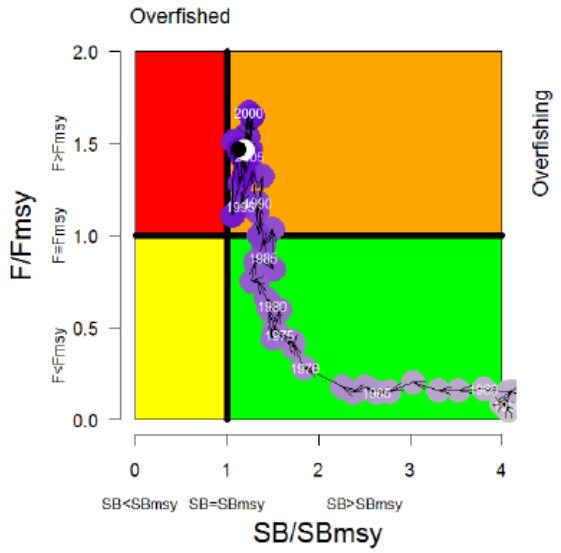
[7] $F_{current}/F_{MSY}$ is estimated at 0.77 indicating that overfishing is not occurring for the WCPO yellowfin tuna. However one of the alternate models found that $F_{current}/F_{MSY}$ >1.0, with a range across the six models considered of 0.54-1.15. Therefore, there is a possibility that overfishing is occurring for yellowfin tuna.

[8] Current stock status indicates that current total and spawning biomass are higher than associated MSY levels ($B_{current}/B_{MSY}$ = 1.33 and $SB_{current}/SB_{MSY}$ = 1.47). Therefore yellowfin tuna is not considered to be in an overfished state. However due to different levels of exploitation between regions and the high rate of exploitation seen in the western equatorial region (~81% catch), spawning biomass in this region is predicted to have declined to about 31% of the unexploited level.

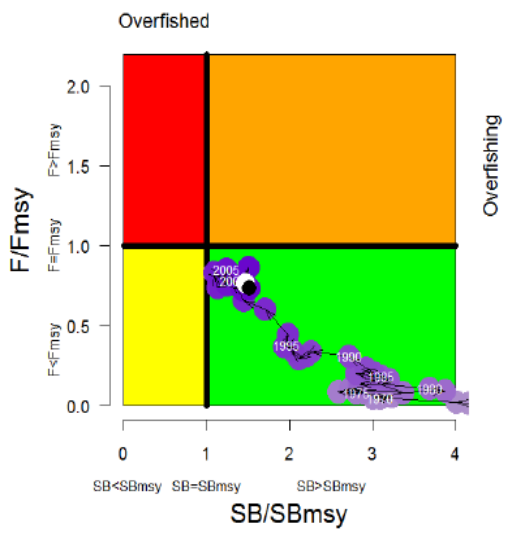
[9] Current stock status indicates that the current total and spawning biomass are close to the associated MSY levels ($B_{current}/B_{MSY}$ = 0.96 and $SB_{current}/SB_{MSY}$ = 1.09). The structural uncertainty analysis indicates a 50% probability that $SB_{current}$

Figure 3 (a-d). Historical stock status trajectory and current status for key tuna stocks

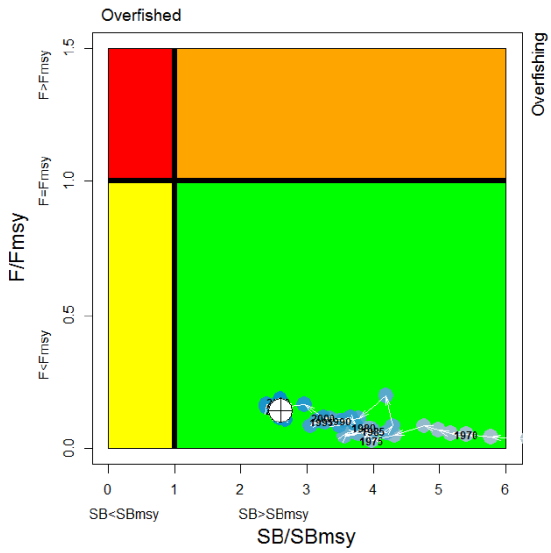
a – Bigeye Tuna



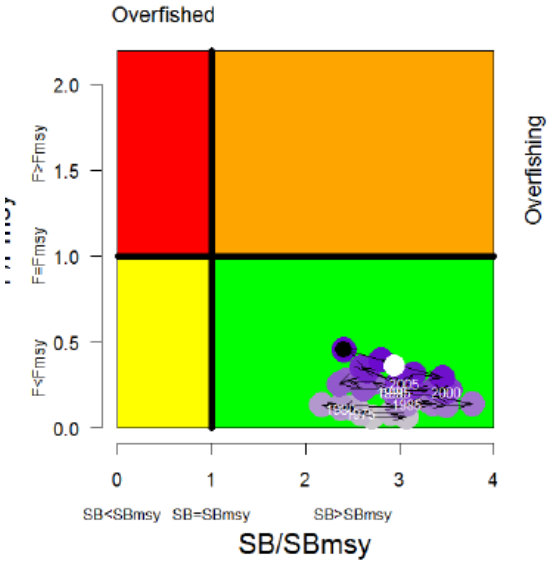
b – Yellowfin tuna



c – Albacore tuna



d – Skipjack tuna



There was a 2012 assessment of striped marlin in the south-western Pacific Ocean updating the previous assessment done in 2006. As well as updates to the input data to Dec 2011, other main developments from 2006 include; Japanese LL catches (1952-2011) double counting removed; nine revised and new standardised CPUE time series, and size composition data from Australian fishery.

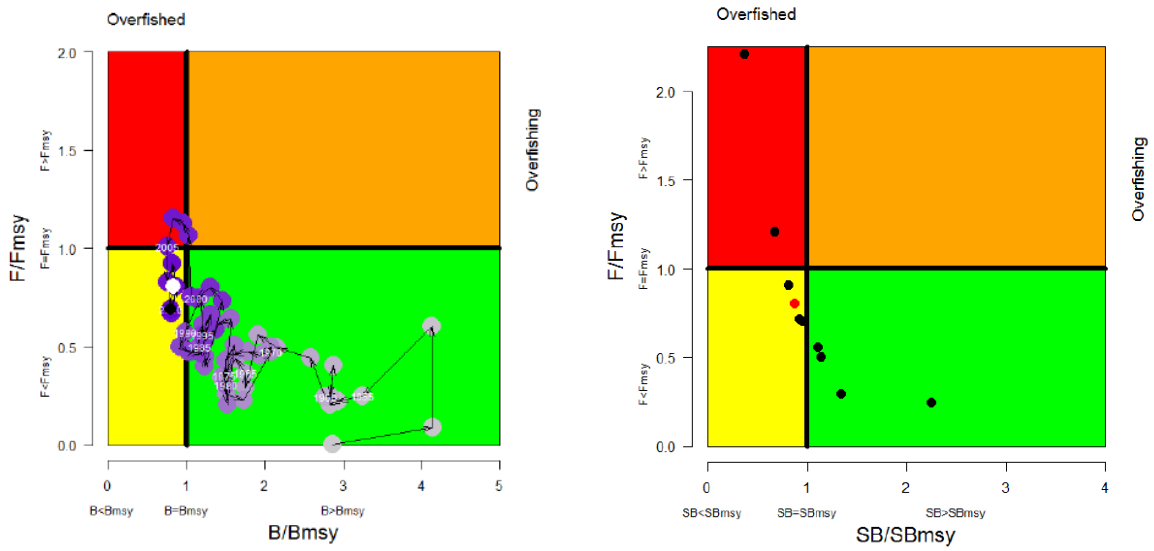
Recent catches are 20% below the *MSY* level of 2182 mt. In contrast, the 'msy-recent' analysis calculates *MSY* to be 1839 mt, which places current catches 5% below this alternative *MSY* level. Based on results from this updated assessment, the Scientific Committee conclude that current levels of catch are below MSY but are approaching MSY at the recent [low] levels of recruitment estimated for the last four decades; *overfishing is not occurring* in the

< SB_{MSY}, and 6 of the 10 key model runs indicate the ratio to be < 1. Based on these results, and the recent trend in spawning biomass, the Scientific Committee conclude that striped marlin is **approaching an overfished state**.

striped marlin stock; and based on recent trend in spawning biomass, *striped marlin is approaching an overfished state*.

Figure 4. a) Temporal trend in annual stock status of south-west Pacific Striped Marlin relative to SBMSY (x-axis) and FMSY (y-axis), for the period 1952–2010 (Ref.case); b) Summary of current stock status of of south-west Pacific Striped Marlin (based on 2007-10) for the key model runs. Red circle represents the Ref.case run.

a) b)



Work on setting targets and limits for WCPFC stocks is ongoing and will go hand in hand with WCPFC conservation and management measures (some of which are currently being revised). WCPFC has indicated that the adoption of reference points is a high priority and that no later than its meeting in 2014 WCPFC will adopt reference points for bigeye, yellowfin and skipjack tunas.

Immediately prior to the 9th Regular Session of the WCPFC in December 2012 there will be a Management Options Workshop (MOW). The key objectives for this workshop are to understand the role of appropriate reference points and the process of evaluating potential management measures in the achievement of management objectives. The workshop may result in the production of a list of potential management objectives for selected tuna species. Scientific advice on the adoption of Limit Reference Points will be considered by the WCPFC Regular Session.

New Zealand is actively engaged in the process of setting target and limit reference points as an important component of management as well as contributing to New Zealand meeting its conditions for the MSC certified albacore troll fishery.

For southern bluefin tuna, the CCSBT has agreed to a Management Procedure with the following parameters:

- To rebuild the status of stock to an interim building target reference point of 20% of the original spawning stock biomass by 2035;
- The MP shall be tuned to a 70% probability of achieving the interim rebuilding target;
- The minimum increase or decrease TAC change shall be 100 tonnes;
- The maximum increase or decrease TAC change shall be 3000 tonnes;
- The TAC shall be set for three-year periods; and

- The national allocation of the TAC within each three-year period will be apportioned according to the Resolution on the Allocation of the Global Total Allowable Catch.

Management objective 6.2	Comprehensive reporting framework for New Zealand flagged vessels fishing outside the New Zealand zone that allows for independent verification of catch

Assessment:

Development of validation rules for high seas data planned for early 2013.

Management objective 6.3 Operational objective 6.10	Improve knowledge of HMS fisheries Monitor the New Zealand albacore fishery to contribute into WCPFC science processes

Assessment:

New Zealand continues to provide fisheries data and country reports to WCPFC and CCSBT as required. New Zealand continues to be an active member of the WCPFC scientific committee which has now developed a long term assessment programme for key tuna and bycatch stocks.

Albacore catch sampling in New Zealand has been continued as an input to the assessment of the south Pacific stock. A comparative assessment of sampling from observers is in progress in order to ensure cost effective delivery of monitoring in this fishery

Operational objective 6.4	Maintain the reproductive capacity of HMS shark populations

Assessment:

A review of the NPOA—Sharks is scheduled for early 2013, with preparatory work undertaken in 2012. An initial review of scientific work on sharks has resulted in recommendations for future research, some of which could address this objective.

Observers are collecting data to assess the current conversion factors for HMS sharks to enable more robust analyses (refer Research Plan for HMS in New Zealand 2011).

In response to concerns about the status and abundance of oceanic whitetip sharks, a measure to prohibit any landings or sale of oceanic whitetip shark was adopted by the Western and Central Pacific Fisheries Commission (WCPFC) in March 2012. As a member nation of the WCPFC, New Zealand has an obligation to implement this measure, and will ban the taking of oceanic whitetips in New Zealand fisheries water and captures from New Zealand flagged vessels fishing on the high seas from early 2013.

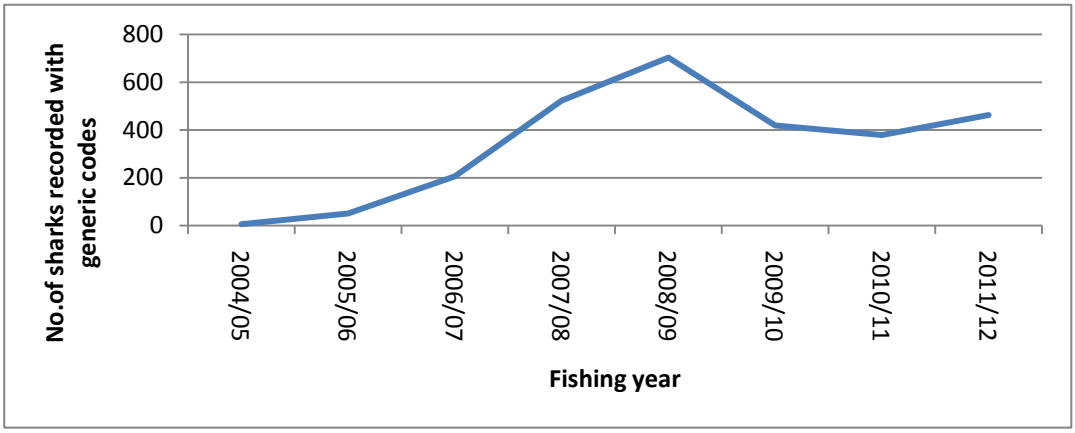
Due to considerable uncertainty over the status of mako shark and porbeagle shark stocks (of which the New Zealand fishery is a part) and concerns over the vulnerability of these species to overexploitation, the Ministry consulted on proposals to reduce catch allowances for both these shark species during 2012. These catch reductions came into effect on 1 October 2012.

New Zealand already collects and supplies data on its shark catches. Access to data on shark catches continues to be problematic for most fleets that fish in WCPFC waters. Provision of

data on catches of key shark species is obligatory under the WCPFC conservation and management measure for sharks and will now be part of the formal data exchange in CCSBT.

For fisheries within New Zealand waters, 2011/12 figures indicate less than 1% of shark catches (by number) are recorded under generic codes in surface longline fisheries (mostly 'other sharks and dogs' and 'skates'). The number of generic shark codes recorded by longline fishers peaked in 2008/09 but has been generally dropping since then.

Figure 5: Use of generic shark codes by longline fishers from 2004-2012



Source: MPI (FIS)

Operational objective 6.5	Review non-commercial allowances and management measures (as required) when new information becomes available

Assessment:

Estimate of recreational catch are available through the gamefish tagging programme for key recreational HMS (see objective 2.2) and more recently through amateur charter vessel reporting. There were changes to non-commercial allowances as part6 of the review of TACs for mako and porbeagle sharks.

Operational objectives 6.6, 6.8	Promote sustainable management of skipjack, albacore in the Western and Central Pacific, including allocation of rights in the fishery

Assessment:

New Zealand management of skipjack and albacore remains consistent with WCPFC measures. Although current scientific information suggests that the skipjack fishery is well above B_{MSY}, under recent fishing patterns, catch rate levels are likely to decline and catch should decrease as stock levels are fished down to MSY levels. There is concern that high catches in the equatorial region could result in range contractions of the stock, reducing skipjack availability to higher latitudes (including New Zealand).

Negotiation on a new conservation and management measure (CMM 2012-01) for bigeye, yellowfin and skipjack tuna continues with a further draft due for consideration at the Commission meeting in December. Draft high level objective are proposed for inclusion in the new measure. The current proposal if for:

> *Fishing Mortality Rate (F) for skipjack will be maintained at a level no greater than Fmsy, i.e. F/Fmsy ≤ 1 and the total annual catch of skipjack does not*

exceed the level of catch for 2010, i.e. 1,610,578 mt until a target reference point is adopted and the Commission reconsiders this objective.

New Zealand continues to work closely with Pacific Island countries to progress shared strategies for achieving sustainable management of the albacore fishery. Two meetings and workshops have been attended this year to progress work on the southern albacore fishery; this work has occurred predominantly through the SC-SPTBF (Sub Committee on South Pacific Tuna and Billfish Fisheries), a grouping within the Forum Fisheries Agency (FFA). New Zealand MPI has also delivered two albacore specific stakeholder meetings to consult on this process.

The most recent SC-SPTBF meeting in October 2012 had the priority to progress the setting of zone-based limits for albacore for each of the coastal states and territories. Unable to agree on a schedule of limits; the group instead developed a proposal for a CMM for south Pacific albacore that established a collective share for coastal states and territories plus a high seas allocation that fitted within the current estimate of MSY (2012 assessment). A draft measure is unlikely to go forward at this year's Commission meeting and instead FFA as a collective will take the opportunity to further highlight progress to date and discuss collaborative management of the albacore fishery with the wider WCPFC group. New Zealand will continue to work very closely with FFA partners in these negotiations and keep stakeholders informed of key updates.

Operational objective 6.7	Regularly monitor the need for more active management of skipjack based on sustainability criteria

Assessment:

As noted above, current catch levels will have a significant impact on skipjack stock size, especially in the western equatorial region and can be expected to affect catch rates, generating some concern for range contraction in this species. New Zealand, amongst other members of WCPFC, has requested research on stock contraction. This research has been undertaken but with no significant updates thus far.

It is likely that the considerations by WCPFC (in December 2012) of management arrangements for skipjack will include discussion of the application of limits throughout the convention area (including New Zealand). If this is agreed New Zealand may be required to advise of its intended limit for the New Zealand fishery no later than November 2013. New Zealand is actively involved in, and will consult on any limit setting process.

Operational objective 6.9	Review management of the New Zealand albacore fishery to achieve regional goals for stock-wide management

Assessment:

As mentioned above, discussions on regional arrangements for albacore management continue to progress through TVM and SC-SPTBF meetings and workshops. Despite an inability to reach agreement on a schedule of limits at the last meeting, members continue to undergo limit setting processes in preparation. The New Zealand albacore fishery is highly variable and allocation discussions have included a development component so that catches are not constrained at historical levels. MPI has been consulting with key stakeholders on what New Zealand's national allocation should be and how such a catch limit would be best implemented.

New Zealand is also actively engaged with the setting of target and reference points that support current stock status/sustainability and economic viability and development aspirations of Pacific Island Fisheries. New Zealand MPI will be participating in a Management Options Workshop in December 2012 that will focus on the setting of reference points. This work contributes to our commitments under the MSC certification condition on the setting of target and limit reference points.

Management objective 7	Implement an ecosystem approach to fisheries management, taking into account associated and dependent species

Management objective 7.1	Avoid, remedy, or mitigate the adverse effects of fishing on associated and dependent species, including through maintaining food chain relationships

Assessment:

Research currently underway using time depth recorders and hook timers may provide some insights into vertical distribution of species of interest in the water column, and allow us to better understand the behaviour of the gear in the water. One trip deploying time depth recorders and hook timers is currently underway and two trips have been completed. 206 time depth recorders have been deployed along with 409 hook timers. Swordfish, albacore, mako shark, blue shark, moonfish and long snouted lancetfish have all set off hook timers, allowing us to assess the time and depth of capture for these species. For larger fish that fight vigorously when hooked, the change in depth of the gear allows the time depth recorder information to be used to assess time of capture. While these data have not yet been analysed in detail the addition of these data to the hook timer data will increase the number of observations and strengthen the analysis. If possible the time and depth data will be overlaid with the stomach content data that have been collected as part of the routine sampling which may give us some insights into the way species utilise the water column in New Zealand.

Management objective 7.2	Minimise unwanted bycatch and maximise survival of incidental catches of protected species in HMS fisheries, using a risk management approach

Assessment:

The Ministry has undertaken a risk assessment that examines the risk to New Zealand seabirds caused by New Zealand fisheries.[10] The risk to populations of seabirds is identified based on a range of biological/population characteristics as well as information about their likely vulnerability to fishing (based on observer data; the overlap of fishing effort and seabird distribution; and, in cases where data is limited, expert opinion). The fisheries contributing the most to the risk status for specific seabirds is also identified in the assessment, providing a means of targeting management to those fisheries potentially posing the greatest danger to seabird populations.

Of the species identified as being particularly at population-level risk, surface longline fisheries are a significant contributor to that risk for the following:

- Black (Parkinson's petrel) (this species is also identified as being potentially at risk from troll fisheries, based on the overlap of effort and bird distribution, rather than on observed interactions);

[10] Yvan, R., E.R. Abraham & D. Filippi (2011). Assessment of the risk to seabird populations from New Zealand commercial fisheries. Final Research Report for Ministry of Fisheries projects IPA2009/19 and IPA2009/20 (Unpublished report held by MAF, Wellington).

- Black-browed albatross (but note that risk is considered likely to be over-estimated in the assessment because all captured birds are assumed to form part of the small New Zealand-resident population, rather than the much larger global population);
- Northern royal albatross;
- Gibson's albatross;
- Antipodean albatross.

In addition, purse seine fisheries are identified as potentially posing a risk to New Zealand storm petrels (although the risk of interactions is thought to be less in purse seine fisheries for skipjack, than in pilchard fisheries, where fishing occurs at night with the use of bright lights that may attract birds to the vessel).

The proposed process is to now analyse the results of the most recent risk assessment and assess what additional management actions are required to reduce risk. Such actions will be documented in annual operational plans. To assist in this process, a research project was commissioned that used observer data to better characterise risk factors that may lead to seabird captures in surface longline fisheries (e.g. seasonal, area-based, vessel or gear-specific). This assessment will help us plan any additional management measures that may be required to manage the impact of surface longline fisheries on these at risk species.

In addition, changes were made to the regulatory framework for seabird mitigation in 2011, which will enable vessel-specific management if required. A modification of these provisions may be required following a review of its seabird conservation and management measure by WCPFC in December 2012.

Refer also to the industry development of a purse seine code of practice to mitigate impacts on protected species described above under operational objective 3.3.

Management objective 7.3	Increase the level and quality of information available on the capture of protected species

Assessment:

Information on captures of protected species in surface longline fisheries is available from at least two sources: fisher reporting and observer data. Although fishers are required to report captures of protected species it was not until 2008 that specific reporting forms were developed for that purpose. To date the level of information available from fisher-reporting is not considered adequate to be a primary source of information on protected species captures, even though it theoretically would have the advantage of covering 100% of effort (whereas observer coverage in 2010/11 was 76% – refer Table 12 for planned versus achieved coverage levels).

Table 12: Observer coverage (in days) – planned versus achieved 2011/12

	Planned	Achieved	%
Tuna Domestic	457	355	78%
Tuna Charter	350	201	57%
Troll ALB	50	36	72%
SKJ Domestic	70	79	113%
SKJ Super Seiner	30	55	183%
Total	957	726	76%

Source: Andrew France, MPI

Because observed capture levels are used to estimate total captures of protected species across the surface longline fleet, it is desirable to achieve observer coverage that is as representative as possible. Figure 6 and Tables 13a and 13b provide some indication of the spatial representativeness of coverage. The representativeness of coverage by season and target species has not yet been analysed. However, general coverage tends to over-sample effort targeted at southern bluefin tuna in comparison to other longline target species such as bigeye tuna. In part this is due to the high levels of coverage for the charter fleet targeting southern bluefin tuna off the west coast of the South Island.

Table 13a: Summary of commercial effort, observer effort and protected species captures in the tuna charter surface longline fishery during the 2010/11 observer year.[11]

FMA	Effort (sets)	Observed sets	Coverage (%)	No. hooks observed	Seabird captures	Seabirds per 1000 hooks	Mammal captures	Mammals per 1000 hooks
1. AKE	2	2	100	4,763	0	0	0	0
5. SOU	89	89	100	215,609	24	0.111	10	0.046
7. CHA	60	60	100	149,700	5	0.033	1	0.007
Total	151	151	100	370,072	29	0.078	11	0.030

Table 13b: Summary of commercial effort, observer effort and protected species captures in the domestic tuna surface longline fishery during the 2010/11 observer year.

FMA	Effort (sets)	Observed sets	Coverage (%)	No. hooks observed	Seabird captures	Seabirds per 1000 hooks	Mammal captures	Mammals per 1000 hooks	Reptile captures	Reptile per 1000 hooks
1. AKE	1,368	64	4.7	64,926	6	0.092	0	0	1	0.015
2. CEE	954	69	7.2	69,037	6	0.087	1	0.014	2	0.029
7. CHA	255	13	5.1	14,380	0	0	0	0	0	0
9. AKW	150	23	15.3	24,527	7	0.285	0	0	0	0
10. KER	26	0	0	-	-	-	-	-	-	-
Total	2,756	169	6.13	172,870	19	0.110	1	0.006	3	0.017

Management objective 7.4	Recognise the intrinsic values of HMS and their ecosystems, comprising predators, prey, and protected species

Assessment:

There is still particular interest in this topic internationally, particularly in relation to shark species. In 2012 MPI consulted on reviews to catch limits for hammerhead shark and porbeagle shark, and consulted on a proposal to ban the take of oceanic whitetip sharks – refer Objective 6.4 for further information.

[11] Observer year is July–June. Source: Kris Ramm, Marine Conservation Services, Department of Conservation 2012.

Operational objective 7.5	Develop and apply effective seabird mitigation, including options for vessel specific measures and compliance

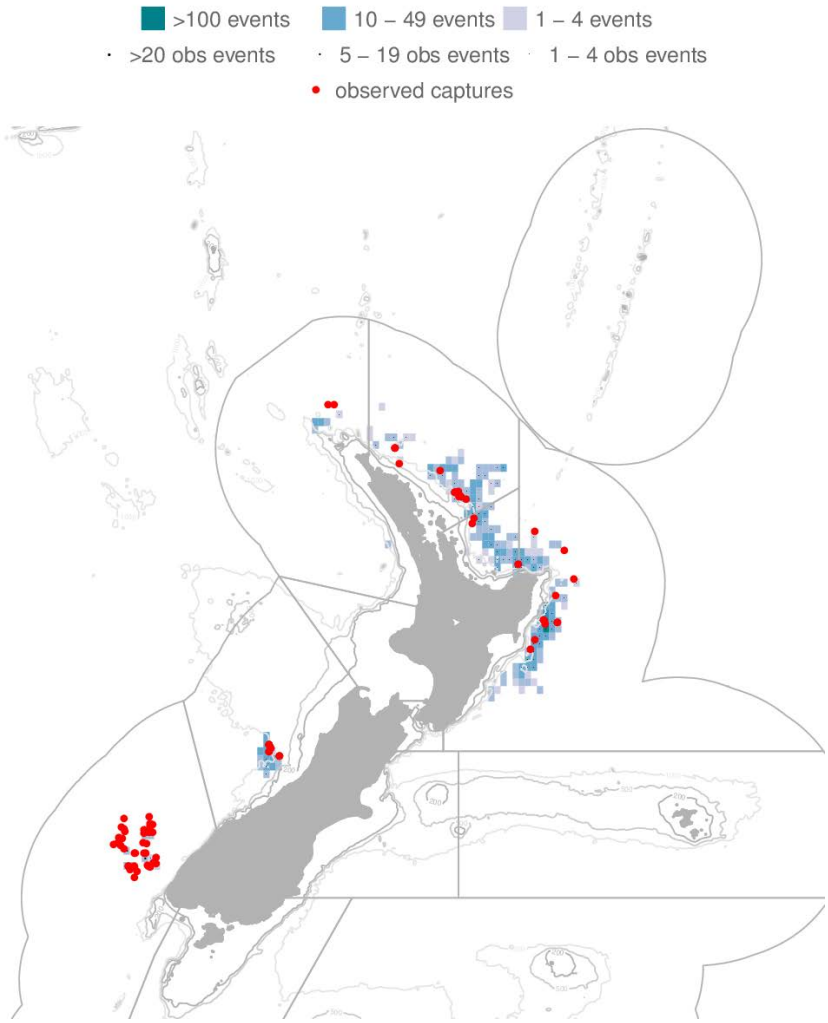
Assessment:

Seabirds are sometimes caught in longline fisheries, both during setting and hauling. The reported captures in 2011 are given in Table 14. Longline vessels fishing for tuna or swordfish in New Zealand fishery waters are required to use tori lines, and may only set their lines at night unless using approved line weighting. New Zealand longline vessels fishing on the high seas south of 30°S must use two mitigation measures, as specified in the WCPFC Conservation Management Measure 2007-04.

Table 14: Observed seabird captures (alive and dead) on surface longline vessels in 2011.

Common name	Scientific name	Number observed
Buller's albatross	*Thalassarche bulleri*	25
Albatross unidentified	Diomedeidae	3
White-capped albatross	*Thalassarche steadi*	3
Wandering albatross	*Diomedea* spp.	2
Black petrel	*Procellaria parkinsoni*	1
Southern cape pigeon	*Daption capensis capense*	1
Great albatrosses	Diomedea spp.	1
Sooty shearwater	*Puffinus griseus*	1
White-chinned petrel	*Procellaria aequinoctialis steadi*	1

Figure 6: Mapped effort and seabird captures from 2010/11 fishing year



Operational objective 7.6	Ensure through regular review and update that effective mitigation measures are in place

Assessment:

The regulated measures for surface longline fisheries were slightly modified and the regulatory regime changed in 2011, to provide for additional flexibility and enable vessel and area specific measures to be promulgated. The National Plan of Action for seabirds (NPOA-Seabirds) is currently being consulted on, which proposes a risk-based approach to reduce the incidental catch of seabirds in New Zealand fisheries. The NPOA-Seabirds will provide a framework to inform the management of seabird/fisheries interactions for the next five years. It will also set a number of time-bound objectives to be reached by partnering with the fishing industry to reduce the incidental catch of seabirds. In broad terms the Plan seeks to ensure that, with the aim of continuous improvement:

1. relevant effective mitigation methods are applied in all New Zealand fisheries and by New Zealand vessels on the high seas;
2. the development of new mitigation measures, new observation and monitoring methods, and relevant research are encouraged and resourced;
3. priority for the application of existing mitigation measures, the development of new mitigation measures and the introduction of other relevant actions are determined in accordance with the level of risk faced by particular seabird species; and
4. active cooperation is established with other countries whose vessels have interactions with seabirds, particularly those that breed in New Zealand, including through relevant RFMOs and through bilateral information sharing and assistance where relevant.

Table 105: Species and number of birds killed and returned from observed fishing vessels between 1 July 2011 and 31 March 2012

Species	Surface Longline	
	Tuna	Other
Antipodean albatross	2	0
Buller's albatross	0	0
Campbell albatross	0	0
Grey petrel	0	0
NZ banded detterel	0	0
NZ white-capped albatross	0	0
Salvin's albatross	0	1
Sooty shearwater	0	1
Southern royal albatross	0	0
Westland petrel	0	0
White-chinned petrel	0	2

Operational objective 7.7	Manage bycatch of juvenile tuna in tropical skipjack fisheries in accordance with WCPFC conservation and management measures

Assessment:

Within New Zealand fisheries waters, juvenile bigeye is not taken as a bycatch in purse seine fisheries and yellowfin is an occasional bycatch only. New Zealand has implemented the provisions of WCPFC's CMM through high seas permit conditions. The four New Zealand vessels that fish in the tropical purse seine fishery carry observers in compliance with the requirements for 100% observer coverage in this fishery.

Management objective 8	Protect, maintain, and enhance fisheries habitat

Management objective 8.1	Identify and where appropriate protect habitats of particular significance to HMS, especially within New Zealand waters

Assessment:

Two research projects have been tendered that will contribute to this objective. The first is intended to better understand the movements of hammerhead sharks. The second is an aquatic environment project to better understand the pelagic ecosystem

Management objective 9	Allow for HMS aquaculture development while ensuring the ecosystem and wild fisheries are protected

Management objective 9.1	Monitor HMS aquaculture development, its potential, and potential for disease transfer and stock depletion

Assessment:

There have been no recent developments in this area. Australian attempts to hatchery raise and rear southern bluefin tuna have yet to be proven economically viable.

MANAGEMENT OBJECTIVES TO SUPPORT GOVERNANCE CONDITIONS

Sound governance arrangements that are well specified, transparent, and which support cost-effective and accountable decision making.

Management objective 10	Recognise and provide for Deed of Settlement obligations

Management objective 10.1	Implement Deed of Settlement obligations as they relate to HMS

Assessment:

Under the Fisheries Act, the Minister must provide for the input and participation of tangata whenua having a non-commercial interest in the stock or an interest in the effects of fishing on the aquatic environment in the area concerned and have particular regard to Kaitiakitanga. In an HMS context, input and participation from tangata whenua is intended to occur primarily through the fish plan and iwi forum processes. This is an area of work that requires strengthening and it is proposed to cooperate with inshore consultation processes in this regard. The HMS team also sought input from tangata whenua on a number of sustainability and management related changes this year as part of a wider sustainability round consultation.

The Crown has Deed of Settlement protocols with a number of iwi which provide recognition of a number of species of interest including HMS. MPI is also developing a reporting framework that will monitor the organisation's delivery against consultation obligations.

Management objective 11	Influence international fora and ensure New Zealand interests are taken into account

Management objective 11.1	Decisions taken by relevant RFMOs and associated bodies take into account New Zealand interests

Assessment:

Ministry staff attended annual and subsidiary meetings of both the CCSBT and the WCPFC. Stakeholder meetings were held in advance of the annual meetings to allow consultation on relevant issues and discussion of New Zealand's position. This year MPI also delivered two albacore specific meetings with key stakeholders primarily to discuss what New Zealand's national allocation should be and how to implement any imposed limit.

Management objective 11.2	Build strong relationships with other fishing nations, in order to influence international fora

Assessment:

New Zealand continues to work closely with Pacific countries through the Forum Fisheries Agency (FFA), and with Pacific partners to improve fisheries management capacity, particularly through the sub-regional grouping Te Vaka Moana (as outlined in a Memorandum of Understanding with the Ministry of Foreign Affairs and Trade). Contributing to the work plan under this MoU, in 2012, New Zealand MPI delivered two

workshops; one to Tokelau Fisheries Division of EDNRE and one to Niue Department of Agriculture Forestry and Fisheries (DAFF). MPI also hosted a secondment from the Solomon Islands Ministry of Fisheries and Marine Resources (MFMR). Recent additional capacity work has been added to MoU annual work plan for 2012/2013 and preparations are underway for New Zealand to provide advice and support to the Administrator of Tokelau regarding Tokelau's EEZ fisheries.

Management objective 11.3	Improve Maori capacity to engage with other stakeholders in international fora

Assessment:

It is generally open for stakeholders to participate in New Zealand delegations to international meetings provided they meet certain requirements such as confidentiality agreements.

Maori have not actively engaged in any of the international fora relating to HMS in 2012 and MPI acknowledges that this is an area that requires further collaboration.

Management objective 11.4	Monitor new and existing fisheries in the vicinity of New Zealand fisheries waters and identify potential threats and opportunities

Assessment:

The significant seasonal influx of vessels to areas of the high seas around New Zealand continues to be of concern. While these vessels are believed to be targeting primarily albacore, there is potential for this fishery to result in bycatches of southern bluefin tuna, bigeye and yellowfin.

Management objective 12	Maintain an effective fisheries management regime

Management objective 12.1	Develop a specific compliance strategy for HMS

Assessment:

The compliance strategy was finalised in March and the focus has now turned to implementation. The strategy includes a number of performance indicators targeting key risks in the HMS environment. Reporting against these indicators is presented in Appendix 2.

Of note is the fact that no out-of-zone patrols were conducted in 2012 due to Navy constraints. However, preparation for an out-of-zone patrol in 2013 is already underway and the patrol will likely take place mid-year.

There were also issues with the lone in-zone patrol aimed at the tuna fleet, the major issue being that there was a lack of vessels to board and inspect. A significant depression off the east coast created 6m swells and high winds. This significantly hindered the operation. At the time of the patrol, most vessels were either alongside or seeking shelter from the weather. Weather aside, the timing of the patrol in terms of the location of the fleet and the fishing season was excellent and this patrol will be requested for next year also.

Management objective 12.2	Ensure foreign vessels know and abide by the relevant rules and voluntary agreements for HMS fishing in New Zealand

Assessment:

The Ministry continues to administer a comprehensive registration process for foreign owned fishing vessels (completed and implemented in 2008) which (1) requires industry to submit substantially more information on the vessel seeking registration and the people behind the operation of that vessel and (2) the completion of a full assessment of the potential risk from the vessel operating in New Zealand waters (covering potential compliance, legal, observer safety and fisheries management risks).

This assessment process culminates in the vessel being categorised as low, medium or high risk. A high risk vessel may be one that is new to New Zealand, has a poor compliance history, or has a new crew or master. The Chief Executive then decides whether to register a foreign vessel.

Four Japanese joint venture vessels operated in the New Zealand southern bluefin tuna fishery in the 2011/12 season. Each vessel carried an observer and operated to a company code of practice regarding interactions with seabirds. Real time reports of seabird bycatch were monitored by the company and by the Ministry. It is likely that a similar level of participation will occur next season.

A Ministerial Inquiry into the use and operation of foreign charter vessels fishing in New Zealand waters was recently completed with one of the outcomes being the decision to phase out the use of foreign charter vessels over the next four years. Following the change, foreign vessels will only be allowed to fish in New Zealand water if they reflag to New Zealand.

12.3	Enable public assessment of how HMS fisheries are managed

Assessment:

Annual review reports are intended to be the primary means for the public to assess how HMS fisheries are managed. More targeted communications are also undertaken, including public consultation on management proposals and a ‘pelagic update’ newsletter that is produced from time to time.

Appendix 1: HMS Species Profiles

The following HMS profiles include information on; TACC versus catch; cost recovery; distribution of quota; catch versus Annual Catch Entitlement (ACE); seasonal catch trends; vessels actively fishing; key Licensed Fish Receivers (LFRs); port of landing and export markets.

The profiles cover the key target and bycatch fisheries as follows:

PART ONE: QMS STOCKS – TUNAS

Bigeye tuna (Thunnus obesus)

Yellowfin tuna (Thunnus albacares)

Southern Bluefin tuna (Thunnus maccoyii)

Pacific Bluefin tuna (Thunnus orientalis)

PART TWO: QMS STOCKS – SHARKS

Mako shark (Isurus oxyrinchus)

Porbeagle shark (Lamna nasus)

Blue shark (Prionace glauca)

PART THREE: NON-QMS STOCKS

Albacore tuna (Thunnus alalunga)

Skipjack tuna (Katsuwonus pelamis)

Appendix 2: Compliance Performance Indicators

Risk		Performance measures	2012 Results to date
Out-of-zone			
H	Risk 1— *Inaccurate and/or incomplete catch reporting*	- At least one out-of-zone patrol focussing on reporting/catch inspections	- No out-of-zone patrol conducted in 2012 based on Navy constraints. Next patrol planned for mid 2013.
		- 100% of inspections reported to flag states within required timeframe	- N/A – no patrol conducted
		- All inspections reported to relevant internal parties (interim report and final report/s)	- N/A – no patrol conducted
		- All reports for each reporting year to be analysed for compliance action/reporting	- N/A – no patrol conducted
H	Risk 2— *IUU activity*	- Ensure fisheries patrols remain a secondary tasking for NORPATs - Risk-based aerial surveillance of northern and eastern EEZ boundaries	- All NORPATs exiting and entering NZ EEZ are tasked with fisheries surveillance on the northern boundary and occasionally eastern boundary (only if NORPAT is heading to eastern pacific)
		- 100% of foreign-flagged HMS vessels inspected in port (basic inspection) - More detailed inspection of foreign-flagged vessels where feasible (e.g. where vessel unloading in port) - 100% inspection of NZ-flagged vessels	- 100% vessels inspected in port. 32 inspections including. - 10 vessel landings. Fully observed and documented by MPI observers - All NZ vessels inspected prior to departure and on return.
		- Identify any significant discrepancies between information sources on NZ vessel activity	- No discrepancies have been detected with respect to NZ vessels
		- Ensure any joint operations with NZ involvement are based on clear objectives consistent with this strategy and TVTA objectives	- No joint operations have occurred in 2012

		- Ensure any joint operations with NZ involvement are based on clear objectives consistent with this strategy	- No joint operations have occurred in 2012
		- Input into development and implementation of ROP planning and deployment process	- MPI inputted into the on-going improvement of the ROP during the recent WCPFC TCC meeting
		- Active involvement with FFA to develop and implement the WCPFC IMS and FFA RIMF	- MPI took part in the FFA MCS working group in March where the FFA RIMF was developed. The WCPFC IMS has stalled somewhat as a result of the key person driving this project resigning
M/H	Risk 3— *Breach of RFMO measures*		
H	Core MCS measures	- Significant breaches in RFMO measures identified	- No significant breaches of RMFO measures were detected by New Zealand
H	Stock management controls	- 100% of discrepancies reported internally for follow up with flag state (International team lead)	- No discrepancies to report to flag states.
M	Environmental measures		
L/M	Supporting MCS measures	- 100% of discrepancies reported internally for follow up with flag state (International team lead)	- No discrepancies to report to flag states.
M/H	Risk 4— *Expansion of fishing effort*	- Compile annual profile to contribute to risk-based compliance activity planning	- No profile of the WCPFC fisheries were completed in 2012, WCPFC was however tasked with compiling a Albacore specific fisheries profile which has been completed
M/H	Risk 5— *Lack of compliance with environmental measures*	- Incorporate awareness of relevant spatial measures (e.g. for seabirds) into pre- and post-patrol briefings	- N/A – no patrol conducted
In-zone			
M/H	Risk 7— *Inaccurate or incomplete*	- At least one at-sea patrol per year targeting high priority issues identified in this strategy	- Surface Tuna Patrol 10-15 June 2012, 3 fisheries officers, target fishery Tuna, 3 patrol days, 6 Commercial fishing vessels boarded and inspected but

	commercial catch reporting		these were primarily trawlers due to unforeseen weather. - Air patrol (P3) 12 June 2012, 1 fishery officer, 19 contacts, no compliance issues.
H	Species mis-identification	- One monitored unload per domestic SLL vessel/year	- 8 monitored unloads conducted in first half of year.
H	s. 110 approvals	- 100% of charter vessels inspected (generally 4 vessels per year)	- 100%, four inspections, no issues
H	High grading/ discarding	- Comparative analysis undertaken - Consider possible risks when planning observer coverage	- Analysis for HMS not yet conducted this year. - Risk analysis undertaken based on other forms of intel and data sources.
M	Non-fish bycatch	- Non-fish bycatch forms inspected for 100% of at-sea inspections - Comparative analysis undertaken	- No long liners inspected but bycatch forms inspected on trawlers.
M/L	QMS bycatch	- Significant discrepancies between catches and catch reporting identified	- No significant discrepancies identified during course of inspections.
L	Non-QMS bycatch	- Significant discrepancies between catches and catch reporting identified	- No significant discrepancies identified during course of inspections.
H	Risk 8— *Meeting catch documentation requirements*	- Knowledge of CDS requirements amongst Whangarei, Auckland, Tauranga, Gisborne, Napier, Nelson and Christchurch offices - Routine checking of CDS documentation during relevant inspections	- Additional training material provided to regional offices to improve awareness with CDS requirements. - CDS documents checked during vessel and LFR inspections where STN involved.
H	Risk 9 *NZ vessels fishing in vicinity of EEZ boundary*	- SLL operators receive direct contact to ensure they are aware of rules	- No compliance issues were identified with respect to NZ vessels operating in the vicinity of the NZ EEZ boundary
M	Risk 10— *Seabird mitigation requirements*	- All instances of non-compliance noted on observer reports are reviewed with follow-up as appropriate - Better picture of fleet use of seabird mitigation devices is developed - Fewer instances of non-compliance	- Instances of non-compliance with seabird mitigation requirements were detected and followed up. - The non-compliance identified an issue with interpretation of the requirements by fishers.
M	Risk 11— *Accuracy and*		- Minor issues with vessels not carrying permit on-board but reporting generally found to be accurate.

	completeness of amateur charter vessel reporting		
L/M	Risk 12— *Management of shark catches*	- Significant discrepancies between catches and catch reporting identified - All instances of non-compliance noted on observer reports are reviewed with follow-up as appropriate - Better understanding of accuracy of species reporting for shark fin landings	- No significant issues were identified in relation to shark catches