

ANNUAL OPERATIONAL PLAN

FOR HIGHLY MIGRATORY SPECIES FISHERIES 2017/18



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Requests for further copies should be directed to: Publications Logistics Officer Ministry for Primary Industries PO Box 2526 WELLINGTON 6140

Email: brand@mpi.govt.nz Telephone: 0800 00 83 33 Facsimile: 04-894 0300

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1 Overview of HMS Fisheries Management and planning process

New Zealand's highly migratory species (HMS) fisheries mostly occur in offshore waters and on the high seas. Therefore, New Zealand's HMS fisheries requires management at domestic and international level. Domestically, management is the responsibility of the Ministry for Primary Industries (MPI) (representing the Crown and its statutory obligations to the public). Internationally, management is the responsibility of various regional fisheries management organisations (RFMOs), to which New Zealand is party.

The National Fisheries Plan for Highly Migratory Species (the HMS Fisheries Plan) describes the overall strategic direction for New Zealand's HMS fisheries, and provides a strategic context and HMS management objectives. The current HMS Fisheries Plan is for the five-year period 2017-2022, and maintains the overall objectives of the preceding plan.

While the HMS Fisheries Plan provides a multi-year, overarching framework for the management of HMS fisheries, details of the day-to-day management initiatives that will be implemented for each fishery are specified in the annual operational plan (AOP). The AOP also outlines the required services, delivery mechanisms, and service prioritisation issues for the upcoming financial year. This AOP provides the management approach for July 2017 to June 2018. The Annual Review Report (ARR) assesses performance of the management initiatives and informs development of the following AOP.

The HMS Fisheries Plan covers a five-year period and therefore actions outlined in the AOP will not necessarily contribute towards every five-year objective. Instead, the AOP identifies Key Focus Areas along with Business As Usual tasks for the year, for which an overview, management initiatives, and associated services are provided.

The demand for management services is frequently greater than can be provided by MPI. Internal prioritisation may occur where needed to ensure sufficient resources to undertake not just the activities in the HMS AOP, but also in AOPs for Deepwater, Inshore Finfish, Inshore Shellfish, and Freshwater. Engagement with tangata whenua and stakeholders also provides opportunities to identify where these groups can provide needed or desired services.

The HMS Fisheries Plan structure:

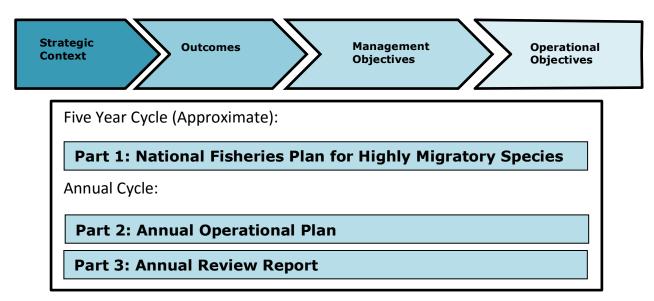


Figure 1. The HMS Fisheries Plan structure. This document relates to Part 2.

2 Fisheries 2030 outcomes and management objectives for HMS fisheries

The HMS Fisheries Plan is designed to contribute to the overall goal for New Zealand's fisheries that is laid out in the strategy document, *Fisheries 2030*, "New Zealanders maximising benefits from the use of fisheries within environmental limits¹." To support this goal, *Fisheries 2030* describes two 'outcome statements': Use and Environment. Specific 'governance conditions' are also fundamental to achieving our goals. Each of these is further specified through a series of Management Objectives.

2.1 FISHERIES 2030 OUTCOMES

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

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

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

The Management Objectives in the HMS Fisheries Plan are grouped under these outcomes and governance conditions as follows. For detailed information about the Management Objectives, please see the *National Fisheries Plan for Highly Migratory Species*.

2.2 MANAGEMENT OBJECTIVES

	1	Support viable and profitable commercial tuna fisheries in New Zealand
Jse Outcome	2	Maintain and enhance world class game fisheries in New Zealand fisheries waters
Use (3	Māori interests (including customary, commercial, recreational, and environmental) are enhanced
	4	Maintain sustainable HMS fisheries within environmental standards
Environment Outcome	5	Implement an ecosystem approach to fisheries management, taking into account associated and dependent species
Envi	6	Protect, maintain, and enhance fisheries habitat

	7	Maintain an effective fisheries management regime
ance ions	8	Recognise and deliver Deed of Settlement obligations
Governa Conditic	9	Ensure New Zealand interests are taken into account internationally
<u></u> σ σ	10	Contribute to Pacific capacity development

¹ http://www.fish.govt.nz/en-nz/Fisheries+2030/default.htm?wbc_purpose=Basic&WBCMODE=PresentationU

2 • Annual Operational Plan for HMS fisheries 2017/18

3 Key Focus Areas and Business As Usual tasks for 2017/18

3.1 KEY FOCUS AREAS

In implementing the HMS Fisheries Plan, the proposed Key Focus Areas for 2017/18 are as follows:

Key Focus Area	Manage interactions of HMS fisheries with seabirds
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OVERVIEW

The National Plan of Action to Reduce the Incidental Catch of Seabirds in New Zealand Fisheries (NPOA-Seabirds) sets out a long-term objective, supporting high-level subsidiary objectives, and objectives to be met within the first five years. The long-term objective is that:

New Zealand seabirds thrive without pressure from fishing related mortalities, New Zealand fishers avoid or mitigate against seabird captures and New Zealand fisheries are globally recognised as seabird friendly.

AOPs, including this one for HMS fisheries, incorporate more specific tasks to meet the objectives contained in NPOA-Seabirds. Appendix One lists 2017/18 AOP tasks and associates them with a specific objective from NPOA-Seabirds.

(Note: NPOA-Seabirds will enter review during the lifetime of this plan and revised NPOA-Seabirds objectives will guide future AOPs.)

Current status: New Zealand has the most diverse seabird community in the world. It is an important breeding ground for 85 species (95 different taxa) of seabirds, including the greatest number of albatrosses and petrels.

Biological characteristics of albatross and petrel species result in a low intrinsic rate of population increase. These include late maturity, low productivity, and prolonged time spent in finding partners. Therefore, these seabirds are not be able to sustain significant mortalities resulting from fishing operations.

Incidental capture by commercial fishing operations is a significant threat to many seabird species globally. This has been acknowledged to be of serious concern since the early 1990s.

MPI monitors seabird bycatch as part of its at-sea observer program. Observations are used to calculate total estimated captures. This information is further used to model risk from fishing to each seabird species. According to the most recent MPI risk assessment², a number of species are at 'high' or 'very high' risk from commercial fishing. Of the top ten species with the highest risk ranking, the surface longline fishery poses a substantial portion of the fisheries risk to four (black petrel, Gibson's albatross, Antipodean albatross and northern Buller's albatross). The risk from non-New Zealand commercial fisheries has not been fully explored, but given the declines seen in the Antipodean albatross population, significant captures levels seems to be occurring elsewhere.

In 2015/16 fishing year, events of high seabird captures have been observed in the New Zealand surface longline fishery particularly while vessels targeted southern bluefin tuna in

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² MPI (2016) Aquatic Environment and Biodiversity Annual Review 2016. Complied by the Fisheries Management Science Team, Ministry for Primary Industries, Wellington, New Zealand. 790p. Available at https://www.mpi.govt.nz/document-vault/16339

southern waters. The seabirds included species listed as 'Threatened' and 'At Risk' in the New Zealand Threat Classification System.

Seabird proxy targets: Currently, there is not sufficient observer coverage and data for capture rates to be used as a quantitative measure of successful management over time. If applicable in the future, MPI will set quantitative capture rate reduction targets for HMS fisheries. In the meantime, seabird proxy measures have been developed for the small vessel surface longline fishery and the swordfish surface longline fishery. The current seabird proxy measures are as follows:

- The compliance rate of observed mitigation use
- The percentage (%) of the fleet with seabird mitigation plans (SMPs) in place
- The level of non-fish bycatch reporting compared with observed non-fish bycatch reporting

These proxy measures and their targets are aimed at assessing behaviour in the fleet as an alternative to a numerically based capture rate (see appendix 5.2). Improved behaviour and buy-in from operators should translate into improved practices and therefore fewer incidents of avoidable bycatch, whilst these indicators should allow us to track progress towards this goal.

The Protected Species Liaison Officer Programme (see below in 'Other activities') introduced reporting trigger points into the surface longline fishery. All trigger level captures must be reported to a liaison officer of the programme and also recorded (as legally required) in the MPI non-fish bycatch form. These trigger points are as follows:

- 3 dead big (e.g. albatross) seabirds in a 24 hour period
- 5 dead small (e.g. petrel, shearwater) seabirds in a 24 hour period
- 10 dead or alive seabirds in a seven day period

Species-specific action plans: In addition to tracking general capture rate reduction (or proxy targets), NPOA-Seabirds necessitates the creation of species-specific action plans for high risk species. In HMS fisheries, Gibson's and Antipodean albatrosses have been identified as high risk species, and species-specific action plans were published in 2016/17 outlining a plan to achieve NPOA-Seabirds goals of moving high risk species into a less-threatened risk category by 2018. An Antipodean Albatross Working Group has also been set up with this objective.

Best practice: NPOA-Seabirds focuses on ensuring commercial fishing vessels are implementing best practice mitigation measures relevant to their area and fishery. New Zealand's current measures require commercial fishers to use two of three prescribed mitigation measures when setting surface longline fishing gear:

- 1. Use a tori line, and
- 2. Either:
 - a. Use line weighting, or
 - b. Set line at night

These requirements are based on advice from the Agreement for the Conservation of Albatross and Petrels (ACAP) and are incorporated in WCPFC's conservation and management measure (CMM) regarding seabirds (2012). As a Member of WCPFC, New Zealand implemented this CMM by way of the *Fisheries* (*Seabird Mitigation Measures* – *Surface Longline*) *Circular 2014*. This circular is currently being reviewed and the measures

may be strengthened to mandate the use of line weighting (alongside the use of tori lines, whilst night setting would remain an additional voluntary measure).

In addition to these requirements, voluntary measures include offal management, additional tori line, line shooters, and hook shielding devices.

Other activities include:

- Protected Species Liaison Officer Programme: this year, this programme is planning to continue with its focus on seabird mitigation, as well as other protected species, in the surface longline fishery. The programme is planned to continue until 30 June 2020. MPI will continue engagement with and support for this programme.
- Longline Workshops: these workshops are the primary means of engagement with surface longline fishers where seabirds and other protected species are routinely discussed and information exchanged.
- Alternative mitigation trials: last year, the Department of Conservation (DOC) trialled hook pods on a surface longline vessel. If the trial proves successful, this year MPI will consider proposing changes at RFMOs to include hook pods as a standalone measure. Should other seabird mitigation measures prove successful, MPI will offer the same consideration.

International: Many seabird species found in New Zealand waters also travel widely across the Pacific and beyond, therefore international advocacy is an important component to successful management of seabird interactions. In particular, the range of wandering albatrosses, which are at risk from capture in surface longline fisheries, overlap with a wide range of fisheries outside New Zealand waters.

MANAGEMENT INITIATIVES

- Continue review of seabird mitigation requirements
- Monitor seabird captures using observer data and fisher reporting
- Meet target levels of observer coverage in each fishery, and ensure observer coverage is representative across vessels, areas, season, and target species
- Encourage non-fish bycatch reporting
- Contribute to the review of NPOA-Seabirds
- Contribute to the seabird risk assessment update and the southern hemisphere risk assessment
- Contribute to the Antipodean Albatross Working Group and support the Black Petrel Working Group
- Support Protected Species Liaison Officer Programme
- Raise and provide information on issues at stakeholder meetings
- Provide for the trial and use of alternative seabird mitigation strategies as appropriate
- Monitor seabird proxy measures
- Monitor the use of voluntary mitigation practices and innovation in mitigation gear
- Work with MPI's Recreational Fisheries team to reduce impact of recreational HMS fisheries on seabird populations
- Support Science in beginning work on identifying 'high risk areas' for seabirds apply the methodology agreed upon at the Ecologically Related Species Working

- Group of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) to all areas where southern bluefin tuna fishing takes place
- Support PROJECT 68 Estimation of seabird mortality across the Western and Central Pacific Ocean Convention area at the Western and Central Pacific Ocean Commission (WCPFC)
- Support Science in undertaking the second iteration of the southern hemisphere seabird risk assessment, using additional data and expertise provided by CCSBT Members
- Continue to seek improvements to data capture and sharing on bycatch species across RFMOs
- Advocate for latest best practice advice to be reflected in RFMO measures
- When possible, support fisheries managers in the Pacific Islands to create sound governance arrangements in relation to minimising seabird interaction and mortality
- Use existing cooperation Memorandum of Understanding (MOU) between the Ministry of Foreign Affairs and Trade (MFAT) and MPI to help Small Island Developing States develop NPOA-Seabirds

- Fisheries Management: Input into seabird-related meetings and policies at RFMOs; and liaise on other seabird tasks
- Science: lead research projects and provide advice as required on other tasks
- Compliance: monitor and enforce compliance with current seabird mitigation requirements
- Observer Services: deliver planned observer coverage
- Data Management: manage data submission process for RFMOs, and data for seabird proxy targets
- Stakeholders: support Protected Species Liaison Officer Programme, provide input and advice to improve mitigation measures where possible; participate in fisher workshops; and support efforts to improve representativeness of observer coverage.

OVERVIEW

Fishing for HMS, both within exclusive economic zones (EEZs) and on the high seas, can often be subject to an obligation to cooperate with other countries in the management of those stocks throughout their range. RFMOs are the primary vehicle for cooperation between interested countries in the management of fisheries.

CCSBT: The Commission for the Conservation of Southern Bluefin Tuna (CCSBT) manages southern bluefin tuna throughout the range where southern bluefin tuna are caught.

Last year, the global allocation for the next three-year block (2018-20) was determined. The global allocation increased by the maximum 3,000 tonnes, which increased New Zealand's allocation to 1,088 tonnes.

The carry-forward rules differ between CCSBT³ and New Zealand⁴. New Zealand will be pushing for CCSBT to change their carry-forward rules this year to better align with those that apply in New Zealand.

In 2014, Members reached agreement to account for all sources of mortality (i.e. recreational catch and post-release mortality) as part of their national allocations. Members committed to full accounting by 2018. The New Zealand delegation will continue its advocacy role to ensure there are no delays in the implementation of this agreement and that other members are on track to meet their commitments.

Also, New Zealand is leading core pieces of work for the Ecologically Related Species Working Group, including undertaking the second iteration of the global seabird Ecological Risk Assessment and identifying 'high risk areas' for seabirds.

CCSBT business as usual tasks include administering the catch documentation scheme (CDS); administering the authorised vessel list; preparing and submitting fisheries data; and preparing for annual and subsidiary meetings, including:

- 8th Operating Model and Management Procedure Technical Meeting (19-23 June 2017)
- 22nd Meeting of the Extended Scientific Committee (28 August-2 September 2017)
- 12th Meeting of the Compliance Committee (5-7 October 2017)
- 24th Annual Meeting of the CCSBT (9-12 October 2017)

WCPFC: The Western and Central Pacific Fisheries Commission (WCPFC) promotes and manages long-term conservation and sustainable use of HMS in the western and central Pacific Ocean.

New Zealand has had a strong focus on progressing zone-based management for albacore over past years, working closely with Forum Fisheries Agency (FFA) members to implement the Tokelau Arrangement (specifying zone-based limits on the catch of south Pacific albacore), and participating in development of a Catch Management Agreement that includes governance arrangements, reporting, monitoring, penalties, and processes to adjust catch limits.

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³ https://www.ccsbt.org/userfiles/file/docs_english/operational_resolutions/Resolution_Limited_Carry_forward.pdf

⁴ See Section 67A of the Fisheries Act 1996

These measures are intended to improve the management of the albacore stock in Pacific Island EEZs in order to call for compatible measures on the high seas. New Zealand will continue to strongly advocate for improved management for albacore, whilst extending the focus to include improving overall longline management in the region. In parallel to the work to improve management in EEZs, New Zealand is leading the development of a WCPFC CMM on South Pacific albacore which proposes to extend the management of South Pacific albacore across the entire fishery. This will tackle one of the concerns of Pacific Island countries (PICs) and the New Zealand South Pacific albacore fishing industry that constraints on EEZ catch may displace fishing effort by distant water fishing nations onto the high seas.

There is significant and increasing concern for the bigeye tuna stock, and the rules of the Commission state that action must be taken to reduce catch to sustainable levels. In 2014 and 2015, members of the Commission were not able to agree on the share each sector will contribute to conservation action, and in particular, whether or not SIDS are experiencing a 'disproportionate burden' from actions adopted. In 2016 the WCPFC chair initiated the process for drafting a bridging CMM for tropical tuna (skipjack, bigeye and yellowfin) to replace the current tropical tuna measure which expires in December 2017. At WCPFC13 in 2016 a rebuilding timeframe of 8-10 years to bring bigeye up to the Limit Reference Point (20% $SB_{f=0}$) was agreed. It is anticipated it will be incorporated into the final bridging measure. New Zealand will continue to input into discussions on the draft measure the lead up to the Commission meeting this year.

WCPFC business as usual tasks include: updating New Zealand vessels on WCPFC's record of fishing vessels as required; issuing and updating high seas permits as required to ensure New Zealand vessels fishing within the WCPFC area comply with all relevant measures; preparing and submitting fisheries data; and preparing for annual and subsidiary meetings, including:

- 13th Regular Session of the Scientific Committee (9-17 August 2017)
- Intersessional meeting to progress the draft Bridging CMM on Tropical Tuna (22-24 August 2017)
- 13th Regular Session of the Technical and Compliance Committee (27 September-3 October 2017)
- 14th Regular Session of the Commission (3-8 December 2017)

TVM: New Zealand is also a member of Te Vaka Moana (TVM), a grouping of Polynesian countries with shared fisheries interests, particularly in the southern albacore and swordfish fisheries (as well as other WCPFC stocks). TVM typically meets in the margins of FFA and WCPFC meetings. TVM's strategic goals are to build fisheries management capacity and to enable cooperation amongst its members.

MANAGEMENT INITIATIVES

- CCSBT:
 - o Propose changes to the carry-forward rules
 - o Support and advocate all Members accounting for all sources of mortality
 - Support Science in their work on the global seabird Ecological Risk Assessment and identifying 'high risk areas' for seabirds
 - o Arrange stakeholder pre-meetings
- WCPFC:
 - Participate in the process for development of the tropical tuna bridging CMM to tighten management of tropical tuna, and support initiatives that address

- the overfishing of bigeye
- o MFAT and International Fisheries Policy to lead on the process for developing a CMM for south Pacific albacore
- Improve monitoring and enforcement frameworks and analyse existing data sets as part of Compliance Monitoring Scheme to ensure that at a minimum there is compliance with the existing measure
- Provide advice on initiatives to tighten transhipment to significantly reduce the illegal unreported and unregulated (IUU) fishing by the longline fleet enabled by transhipping
- International to work with WCPFC members, cooperating non-members and participating territories (CCMs) to identify a WCPFC CDS framework and common standards within which regionally and nationally based CDS can be aligned
- Work with Pacific Island countries and Distant Water Fishing Nations to reach agreement on a target reference point (TRP) for albacore that takes into account economic factors and the special requirements of Small Island Developing States (SIDS)
- o Improve in-zone management arrangements by supporting national implementation of the Tokelau Arrangement
- o Arrange stakeholder pre-meets as requested
- Support the development of a catch management scheme for the Tokelau Arrangement
- Support TVM

- Fisheries Management: coordinate input into CCSBT and provide fisheries management input into WCPFC, FFA, and TVM; liaise with stakeholders to keep them informed on international management
- International Fisheries Policy: lead input into WCPFC, FFA, and TVM; provide advice as required for CCSBT; liaise with stakeholders to keep them informed about international management
- Science: lead input into scientific processes and provide additional scientific advice as required
- Compliance: provide compliance advice as required; attend relevant meetings, e.g. Technical and Compliance Committee
- Data Management: ensure timely submissions of New Zealand's fisheries data as required under WCPFC and CCSBT agreements
- Stakeholders: provide input into New Zealand's negotiating positions, through stakeholder consultation meetings and communications; participate in international meetings as part of the New Zealand delegation (following an approval process) or as meeting observers

OVERVIEW

The monitoring and enforcement of HMS fisheries regulations presents many challenges, most notably issues relating to monitoring many vessels, far from land, with low observer coverage levels and limited compliance resources. Ensuring reasonable compliance levels with fisher requirements is crucial to managing HMS fisheries and engaging with industry, environmental, and RFMO stakeholders.

At-sea patrols have been difficult to achieve in this fishery, while aerial patrols involve significant resources, which places a greater importance for information from observed trips. Observed incidents of non-compliance will be dealt with using appropriate measures, according to the circumstances involved.

The Fisheries (Southern Bluefin Tuna Catch Documentation Scheme) Regulations 2017 came into effect on 27 April, 2017. Obligations on fishers and licenced fish receivers (LFRs) have not changed under this new system. Rolling out the new regulations will involve communications and capacity building with stakeholders and within MPI. Specifically, systems and processes will need to be created for reporting and following up on infringement offenses.

Fisheries Management responsibilities:

- Clearly documenting requirements and disseminating information
- Ensuring robust systems are in place
- Engagement in RFMO work
- WCPFC reporting obligations and monitoring, control, and surveillance (MCS) scheme
- Administration of the CCSBT CDS, including proposal to draft new regulations

Compliance responsibilities:

- At-sea patrols
- Aerial patrols, specifically targeting longline fisheries
- Multilateral/regional operations
- Port inspections
- Analysis of reports
- Engagement in RFMO work
- Engaging with fishers
- Discrepancy analysis using various data sources to identify possible weaknesses

Specific priorities are outlined in Appendix Three.

MANAGEMENT INITIATIVES

- Create systems for timely feedback between industry, DOC, and MPI business groups
- Work across MPI to standardise various compliance resources, tools, and processes
- Monitor compliance of commercial fishing vessels with seabird mitigation requirements
- Monitor reporting of shark discards under schedule 6 rules
- Implement of the Fisheries (Southern Bluefin Tuna Catch Documentation Scheme)
 Regulations 2017

- Quota management species (QMS) record-keeping and reporting
- Appropriate follow-up with observed non-compliance

- Fisheries Management: lead input into CCSBT compliance; ensure compliance with CDS; liaise with Compliance and stakeholders on other compliance tasks
- Compliance: follow-up on incidents of non-compliance; provide compliance advice as required; attend relevant meetings (e.g. WCPFC Technical and Compliance Committee); lead or support MPI responses to specific compliance proposals or other relevant decisions
- Legal: provide advice as required
- Stakeholders: meet regulatory requirements for fishing; provide input and advice on how regulations could be improved where appropriate

3.2 BUSINESS AS USUAL TASKS

Management of HMS fisheries also includes a range of Business As Usual tasks, as outlined below.

Business As Usual task 1	Manage interactions of HMS fisheries with sharks
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OVERVIEW

A revised National Plan of Action for the Conservation and Management of Sharks (NPOA-Sharks) was adopted in 2014. The purpose of NPOA-Sharks is:

To maintain the biodiversity and the long-term viability of all New Zealand shark populations by recognising their role in marine ecosystems, ensuring that any utilisation of sharks is sustainable, and that New Zealand receives positive recognition internationally for its efforts in shark conservation and management

NPOA-Sharks defines medium and long-term objectives aimed at increasing information and improving management. Given the level of international and domestic interest, the effective management of sharks is likely to require ongoing focus in years to come.

Stock status: MPI's work on sharks is supported by a 2014 qualitative risk assessment, which considered relative risks to shark populations for QMS, non-QMS, and protected shark species. HMS species that are managed under the QMS include blue shark, mako shark, and porbeagle shark. These three species were ranked amongst the lowest risk QMS species. The risk assessment also showed that the protected spinetail devil ray is caught predominantly when purse seining for skipjack tuna, as well as occasionally on tuna longlines.

At present, no estimates of sustainable yield are available for HMS sharks. However, in recent years, indicator-based analysis has been used to assess shark stock status. Most recently, analysis of distribution indicators for make sharks and blue sharks, as well as distribution and catch per unit effort (CPUE) indicators for perbeagle sharks, show that all three species show increasing or stable population trends since 2005. Within New Zealand, total allowable catches (TACs) for blue shark, make shark, and perbeagle shark are set at levels allowing for bycatch in associated tuna target fisheries.

The first step in the assessment of the impact of HMS fisheries on shark populations is the collection of accurate information on catch and discard levels. This information is primarily supplied by QMS self-reporting documents and by observer reports. It is likely that electronic monitoring and reporting will provide additional information.

Shark Finning Ban: Shark finning was banned on 1 October 2014, meaning that it is illegal to remove the fins from a shark and discard the body of the shark at sea. The *Fisheries (Commercial Fishing) Regulations 2001*⁶ detail the landing requirements for sharks. The shark finning ban was accompanied by a change to Schedule 6 of the *Fisheries Act 1996*, to allow for rig and school shark to be returned to the sea if they are likely to survive, and mako sharks, porbeagle sharks, blue sharks, and spiny dogfish to be returned to the sea dead or alive. Ongoing monitoring work associated with the shark finning ban includes monitoring

⁵ Francis, M., Clarke S., Griggs, L., Hoyle, S. (2014). Indicator based analysis of the status of New Zealand blue, mako, and Porbeagle sharks. *New Zealand Fisheries Assessment Report 2014/69*. 109 p.

⁶http://www.legislation.govt.nz/regulation/public/2001/0253/latest/DLM76407.html?search=ts_act%40bill%40regulation%40deemedreg_commercial+fishing_resel_25_a&p=1

⁷ The Fisheries (Reporting) Regulations 2001 were also amended to reflect the above changes.

shark landings, including use of ratios (where allowed) and shark handling and release practices.

Best practice: Objective 2.2 of NPOA-Sharks states that MPI should seek to 'minimise waste by promoting the live release of bycaught shark species and develop and implement best practice guidelines for handling and release of live sharks'. Research has revealed that post-release survival is potentially low and dependent on crew handling techniques.⁸ This work has led to recommendations for improvement of animal release in order to reduce fisheries impacts, which will be reflected in the forthcoming codes of practice for longline and purse seine fisheries.

International: Highly migratory shark species spend only part of their time in New Zealand waters and may migrate over considerable distances. New Zealand cooperates with other countries to manage these species, notably via RFMOs including CCSBT and WCPFC. This collaboration is important to ensure New Zealand's conservation and management efforts are not undermined. Comprehensive management arrangements are required for the high seas and other national jurisdictions that take into account the individual characteristics of highly migratory sharks. New Zealand will continue to advocate for the adoption of effective, risk-based shark management measures at CCSBT and WCPFC.

MANAGEMENT INITIATIVES

- Monitor shark catches using observer data, catch effort reporting, and direct feedback from stakeholders
- Review the shark fin ban during first half of year
 - o Accuracy of reporting, level of catch and landing destination code
 - o Increased information available on catch and discard levels of shark species
 - o Levels of compliance with Schedule 6 release conditions
- Contribute to the review of NPOA-Sharks
- Support industry development and dissemination of best practice guidelines for 'Safe Handling and Release'
- Complete indicator-based analysis of stock status
- Advocate for and input into Pacific-wide stock assessment for key HMS sharks
- Support WCPFC to develop comprehensive approach to shark and ray conservation and management

ASSOCIATED SERVICES

- Fisheries Management: ensure fishers are aware of all regulatory requirements; review management based on risk assessment
- Science: manage research process and provide advice on any management proposals
- Compliance: provide advice on any management proposals affecting compliance
- Legal: provide advice on any management proposals
- Stakeholders: provide input into consultation

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⁸ Jones & Francis 2012, Francis 2014.

Business	As	Usual
task 2		

Engage fishery stakeholders

OVERVIEW

Sufficient and appropriate engagement with stakeholders, including tangata whenua, is an essential part of fisheries management. This objective ensures fishery stakeholders have access to information that will allow them to assess and input into how HMS fisheries are managed.

Stakeholder meetings: The Fish Plan Advisory Group (FPAG) meets twice a year to review the implementation of the fisheries plan and the AOP. This consultation is currently the primary way stakeholders have a say in the way that HMS fisheries are managed. Additionally, the fisheries plan, AOP and ARR are available to the public through the MPI website. The HMS team also holds two Longline Workshops a year with the commercial surface longline fleet, and takes part in the Tuna Management Association annual general meeting. These meetings are used to discuss issues of high importance or urgency to fishers, stakeholders and fisheries managers.

Communications: The Pelagic Update is a printed newsletter sent to HMS stakeholders semi-annually. It may be useful to consider digital and social media communications to increase engagement with some stakeholder groups, specifically environmental non-profit organisations and the general public.

At the end of last year, Fisheries Inshore New Zealand (FINZ) spread their coverage to HMS fisheries, providing HMS fishers with an industry representative who will be able to represent their interests and facilitate improved engagement between fishers, other stakeholders, and MPI.

The Protected Species Liaison Officer Programme focused on the surface longline fleet last year and it is likely the focus will remain here this year. Therefore, MPI will need to continue with support and communications with this programme.

MANAGEMENT INITIATIVES

- Host two FPAG meetings, Longline Workshops, and take part in the Tuna Management Association annual general meeting
- Publish the Pelagic Update
- Improve access to information and materials on MPI website
- Maintain communications with FINZ HMS representative
- Support and communicate with Protected Species Liaison Officer Programme
- Standardise systems/processes for information sharing, e.g. timing of the Pelagic Update
- Improve input and participation opportunities for iwi
- Increase efforts to engage with industry and non-governmental organisation (NGO) stakeholders prior and subsequent to international meetings, as per stakeholder requests
- Increase engagement with non-commercial game fisheries by liaising with MPI's Recreational Fishing team, including discussing avenues to further spread information direct to those on the Recreational Fishing database
- Statutory consultation, as required under the *Fisheries Act 1996* (for changes to sustainability or regulatory measures)
- Arrange stakeholder pre-meets for RFMO meetings

- Fisheries Management: engage with stakeholders with an interest in HMS fisheries
- Science: participate in meetings and workshops as required, e.g. FPAG meetings and Longline Workshops

Business	As	Usual
task 3		

Monitor commercial fisheries

OVERVIEW

Commercial fisheries are monitored in order to provide data on fishing activity to inform decisions of fisheries managers. Monitoring commercial HMS fisheries is done via commercial reporting, observer coverage, and scientific research. The observer data provides the most detailed information of catch, on a set-by-set basis, and is used for a variety of purposes, including as inputs into stock assessments.

New Zealand has obligations to WCPFC and CCSBT to provide observer coverage as follows:

- **CCSBT** a target of 10% catch and effort for each fishery component (i.e. charter and domestic fleets)
- WCPFC 100% coverage for purse seine vessels operating in the Convention Area, between 20° north and 20° south (observers are sourced from the WCPFC regional observer programme (ROP)); for other methods operating on the high seas, a minimum of 5% coverage sourced either from the ROP or, if fishing is adjacent to the New Zealand EEZ boundary, from the national observer programme

Foreign charter vessels, which required 100% observer coverage and therefore increased the overall observer coverage across the surface longline fishery, no longer fish in New Zealand. This has increased the challenge of achieving the CCSBT 10% observer coverage target. Last year, a high profile capture event prioritised observer coverage to this fishery, enabling the target to be achieved. Additional focus and effort will be required this year to achieve adequate and representative coverage levels.

Planned observer coverage for HMS fisheries in 2017/18 is outlined in Appendix Four.

MANAGEMENT INITIATIVES

- Monitor compliance of commercial fishing vessels with regulatory requirements for seabird mitigation
- Plan observer coverage to provide full representation of the fisheries
- Achieve the observer coverage targets set by CCSBT and WCPFC
- Monitor the reporting of shark and seabird catches
- Improve compliance-related feedback from observers to permit holders after observed trips

- Fisheries Management: liaise with observers on coverage planning and observer debriefs
- Observer Services: liaise with observers and fishers to deliver planned observer coverage; liaise with Fisheries Management, Science, and Compliance to provide feedback on observer coverage
- Science: lead improvements on observer data capture; liaise with observers on outcomes of coverage
- Compliance: monitor commercial and non-commercial fisheries for HMS and follow up on items of interest identified through observer coverage

OVERVIEW

The HMS team is responsible for monitoring non-commercial tuna and billfish game fisheries, as well as consulting and engaging with relevant recreational fishers and charter operators. The HMS team will work with the Recreational Fishing team within Fisheries Management to strengthen the management of non-commercial HMS fisheries.

Non-commercial fisheries are monitored in a variety of ways. Recreational charter boats are subject to compulsory registration, activity reporting, and catch reporting for specified stocks, including southern and Pacific bluefin tunas. Monitoring also occurs through voluntary reporting, including through the long-standing game fish tagging programme, landed catch records from New Zealand Sport Fishing Council (NZSFC) clubs, and targeted logbook schemes. Information from recreational fisheries monitoring is used in stock assessments and other scientific research.

In the past, when necessary, agreements between commercial and non-commercial fishers have been negotiated in areas of inter-sector conflict, with varying success. Participants in the Fish Plan Advisory Group (FPAG) have indicated their commitment to developing coordinated, collaborative responses to potential conflicts wherever possible, and through semi-annual meetings, the AOP, and the ARR.

MANAGEMENT INITIATIVES

- Work with the Recreational Fishing team as required
- Monitor trends using landed catch from NZSFC records, tag and release data from the game fish tagging database, information from charter vessel reporting, and CPUE from logbook schemes
- Support stakeholders to develop a strategy to continually build and foster improved relationships between recreational and commercial fishers
- Support and assist stakeholders to identify and resolve unsatisfactory fishery interactions between recreational and purse seine fishers, including processes for reporting and addressing negative interactions
- Take into account recreational interests when making fisheries management decisions and recognise the economic and inherent value of game fisheries to New Zealand
- Support policies that maintain and enhance recreational catch rates of HMS, domestically and internationally
- For striped marlin, if CPUE drops below the long-term mean for four consecutive years, a management review will be triggered

- Fisheries Management:
 - HMS team: consult with recreational HMS fishers and organisations, review management of HMS as necessary, minimise and resolve inter-sector conflicts
 - o Recreational Fishing team: assist HMS team with consultation, engagement, and education of recreational fishers for HMS
- Science: take lead on science relating to HMS population and effort information, specifically in relation to recreational HMS fisheries
- Data Management: collect and analyse recreational and charter vessel data as needed

Business	As	Usual
task 5		

Develop and implement HMS Research Plan

OVERVIEW

Research provides information for input into fisheries management. The research required to manage HMS fisheries is contracted on an annual basis, based on the long-term planning done as part of the Five Year Medium Term Research Plan.

Research projects planned to begin or continue in 2017/18 are outlined in detail in Appendix Five.

Research projects beginning in the 2017/18 year include:

- Albacore (commercial) and striped marlin (recreational) CPUE analyses
- Shark fishery indicator-based analysis
- Catch sampling analyses of several HMS

There are also a number of on-going projects that are carried over from previous years including:

- Albacore catch sampling
- Commercial catch sampling for HMS
- Catch at age sampling for southern bluefin tuna
- Data reports for CCSBT and WCPFC

In addition, there are a number of other research projects that are of relevance to HMS but are administered under other work streams, such as the risk assessment work taking place for both sharks and seabirds or by DOC under the Conservation Services Program.

MANAGEMENT INITIATIVES

- Monitor 2017/18 research projects to ensure delivery remains on track to provide results that will support fisheries management
- Finalise and agree to the HMS Research Plan, including any proposals for industryled research
- Participate in the research planning process as required

- Fisheries Management: develop research proposals to meet information needs for fisheries management; review research projects; participate in the research planning process as required
- Science: run the research and assessment processes, including working group meetings
- Contracts Management: manage research contracts
- Stakeholders: participate in working group meetings to review assessments and research projects

Business	As	Usual
task 6		

Contribute to the implementation of MPI's MOU on Pacific capacity development

OVERVIEW

MPI has a supporting role providing technical assistance to develop Pacific countries' fisheries management and monitoring, control and surveillance (MCS) capacity. MPI has signed a MOU with MFAT to deliver this work. The project aims to support PICs to maximise the economic and developmental benefits through the sustainable management and utilisation of their fisheries resources.

The main outputs for this work are:

- Facilitation and coordination of engagement and relationships between PICs, the New Zealand fishing industry, and technical experts
- Provision of advice to PICs on strengthening governance
- Provision of fisheries management advice to TVM countries and other Pacific partners with which New Zealand has bilateral programmes
- Provision of technical MCS and enforcement advice that will build capability of Pacific partners to design their own MCS frameworks to support fisheries management

The MOU team deliver these outputs on behalf of MPI. MPI facilitates and utilises internal fisheries administration expertise, contributing to strategic relationships with the Pacific Community (SPC) and Forum Fisheries Agency (FFA) among others. These regional relationships are intended to ensure a coordinated and targeted approach to the provision of capacity building resources across Pacific countries.

MANAGEMENT INITIATIVES

- Engage with and assist the TVM organisation and participants through direct capacity building efforts;
- Work with FFA through the Tokelau Arrangement to implement improved fisheries management for South Pacific albacore;
- Direct capacity building projects and training with Cook Islands, Fiji, Kiribati, Niue, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu, and others; and
- Assist Tokelau in improving fisheries governance and management

- Fisheries Management: provide fisheries management advice on Pacific capacity building
- Science: provide science advice on Pacific capacity building
- Compliance: provide compliance advice on Pacific capacity building
- International Fisheries Management: coordinate implementation of MOU
- MFAT: monitor and engage on MOU implementation

4 Work plan for the HMS team for 2017/18

Q1 (JUL-SEP)	Q2 (OCT-DEC)	Q3 (JAN-MAR)	Q4 (APR-JUN)				
KFA 1 Manage interactions of HMS fisheries with seabirds							
 Support Science in beginning work on identifying 'high risk areas' for seabirds Support Science in undertaking second iteration of the southern hemisphere seabird risk assessment Continue to seek improvements to data collection and sharing on bycatch species across RFMOs Advocate for the latest best practice advice to be reflected in RFMO measures Support fisheries managers in the Pacific Islands to create sound governance in relation to minimising seabird interactions Review seabird mitigation requirements (specifically mandatory line-weighting) Monitor seabird captures using observer data Contribute to the Antipodean Albatross Working Group Support Protected Species Liaison Officer Programme Monitor seabird proxy targets 	Review seabird mitigation requirements Monitor seabird captures using observer data Encourage non-fish bycatch reporting at stakeholder meetings Contribute to review of NPOA-Seabirds Contribute to the Antipodean Albatross Working Group Support Protected Species Liaison Officer Programme Monitor seabird proxy targets	 Monitor seabird captures using observer data Support Protected Species Liaison Officer Programme Contribute to the review of NPOA-Seabirds Monitor seabird proxy targets 	Monitor seabird captures using observer data Encourage non-fish bycatch reporting at stakeholder meetings Support Protected Species Liaison Officer Programme Contribute to the review of NPOA-Seabirds Monitor seabird proxy targets				
KFA 2 Contribute to international proce	sses through RFMOs						
 Propose changes to the carry-forward rules Support Science in their work on the global seabird risk assessment and identifying 'high risk areas' for seabirds Organise stakeholder meetings ahead of all CCSBT and WCPFC meetings Attend technical and science meetings: WCPFC SC13 (9-17 Aug) WCPFC: Draft Bridging CMM on Tropical Tuna (22-24 August 2017) CCSBT ESC22 (28 Aug – 2 Sept) WCPFC TCC13 (27 Sept – 3 Oct) 	Support Science in their work on the global seabird risk assessment and identifying 'high risk areas' for seabirds Organise stakeholder meetings ahead of all CCSBT and WCPFC meetings Attend CCSBT Compliance and Commission meetings (5-12 Oct) Attend WCPFC Commission meeting (3-8 Dec) Support TVM	 Implement any outcomes from CCSBT and WCPFC meetings as required Support TVM 	Support TVM				
KFA 3 Ensure HMS compliance with ma	inagement measures						
 CDS monitoring Attend WCPFC TCC13 (27 September – 3 October) Monitor compliance of commercial fishing vessels with seabird mitigation requirements Monitor reporting of shark discards under schedule 6 	CDS monitoring	 CDS monitoring Monitor compliance of commercial fishing vessels with seabird mitigation requirements Implement any compliance –related outcomes from CCSBT and WCPFC meetings as required Monitor reporting of shark discards under schedule 6 	CDS monitoring Monitor compliance of commercial fishing vessels with seabird mitigation requirements Monitor reporting of shark discards under schedule 6				

Sharl obser report	Manage interactions of HMS fish	eries with sharks	1							
obser repor	k fin ban review (monitor shark catches using		BAU 1 Manage interactions of HMS fisheries with sharks							
	rver data, fisher reporting, and anecdotal (ts) ort industry development of best practice elines for 'Safe Handing and Release'	 Contribute to the review of NPOA-Sharks Advocate and input into Pacific-wide stock assessment for key HMS sharks Support shark limit reference point work being led by WCPFC 	•	Support industry to develop best practice guidelines for 'Safe Handling and Release' of sharks in longline and purse seine fisheries Contribute to the review of NPOA-Sharks	•	Contribute to the review of NPOA-Sharks				
BAU 2	Engage fishery stakeholders									
StakeMainSupp	sh 'Pelagic Update' newsletter cholder pre-meets for RFMO meetings stain communication with HMS FINZ ort Protected Species Liaison Officer ramme	 FPAG to discuss ARR and research needs Longline Workshop Stakeholder pre-meets for RFMO meetings Maintain communication with HMS FINZ Support Protected Species Liaison Officer 	•	Publish 'Pelagic Update' newsletter Provide for iwi input and participation into annual planning Maintain communication with HMS FINZ Support Protected Species Liaison Officer	•	FPAG to discuss the AOP Longline Workshop Consult on and publish 2018-2019 AOP Maintain communication with HMS FINZ Support Protected Species Liaison Officer				
BAU 3	Monitor commercial fisheries	Programme		Programme		Programme				
Four Liais follo Monivith Monivith Work BAU 4	e regularly on outcomes of coverage and w-up as required itor commercial fishing vessels' compliance regulatory requirements seabird mitigation itor reporting of shark and seabird captures Strengthen management of non-commercial and recreational	Work with commercial and recreational	•	Deliver observer coverage as outlined in Appendix Four Liaise regularly on outcomes of coverage and follow-up as required Plan 2018/19 observer coverage Monitor commercial fishing vessels' compliance with regulatory requirements seabird mitigation Monitor reporting of shark and seabird captures Take into account recreational interests when	•	Deliver observer coverage as outlined in Appendix Four Liaise regularly on outcomes of coverage and follow-up as required Finalise 2018/19 observer coverage Monitor commercial fishing vessels' compliance with regulatory requirements seabird mitigation Monitor reporting of shark and seabird captures Report in the ARR on trends, tag and release data, charter vessel reporting and CPUE from logbooks				
• Take	holders to resolve inter-sector conflict into account recreational interests when ng fisheries management decisions	takeholders to resolve inter-sector conflict Take into account recreational interests when making fisheries management decisions	•	making fisheries management decisions Work with MPI's recreational fisheries team to improve communication with recreational stakeholders	•	Work with MPI's recreational fisheries team to improve communication with recreational stakeholders				
BAU 5	Develop and implement HMS Rea	search Plan								
• 2017	/18 projects commence	 FPAG to identify research needs for HMS fisheries MPI develops potential research projects to meet identified needs Monitor 2017/18 projects to ensure delivery remains on track 	•	Monitor 2017/18 projects to ensure delivery remains on track	•	Consultation on proposed research proposals as part of cost recovery consultation Monitor 2017/18 projects to ensure delivery remains on track				
BAU 6	Contribute to the implementation	n of MPI's MOU on Pacific capacity deve	lopn	nent						
 Work 're al Directistance Assis 	ort TVM through capacity building efforts t with FFA through the Tokelau Arrangement bacore et capacity building and training in the pacific ds st Tokelau in improving fisheries governance management	 Support TVM through capacity building efforts Work with FFA through the Tokelau Arrangement 're albacore Direct capacity building and training in the pacific islands Assist Tokelau in improving fisheries governance and management 	•	Support TVM through capacity building efforts Work with FFA through the Tokelau Arrangement 're albacore Direct capacity building and training in the pacific islands Assist Tokelau in improving fisheries governance and management	•	Support TVM through capacity building efforts Work with FFA through the Tokelau Arrangement 're albacore Direct capacity building and training in the pacific islands Assist Tokelau in improving fisheries governance and management				

5 Appendices

5.1 FIVE-YEAR NPOA-SEABIRDS OBJECTIVES AND PROPOSED ACTIONS

The table below provides NPOA-Seabirds five year objectives and the corresponding planned management initiatives for 2017/18. This way, these objectives are translated into specific year by year actions. (Note: NPOA-Seabirds will enter review during the lifetime of this plan and revised NPOA-Seabirds objectives will guide future AOPs.)

Five year practical objectives

- a). All New Zealand commercial fishing vessels are shown to be implementing current best practice mitigation measures relevant to their area and fishery;
- b). Recreational and customary noncommercial fishers understand the risks their fishing activities pose to seabirds, relevant organisations support and promote the use of best practice mitigation measures and it is the cultural norm in New Zealand to use such measures; and
- c). Capture rates are reducing in all New Zealand fisheries in accordance with reduction targets in the relevant planning documents for those fisheries.

Planned HMS management initiative for 2017/18

Gap analysis shows several areas where mandated requirements and/or actual practice differ from what is considered best practice, including:

- Improved compliance with existing measures, particularly tori lines
- Improved use of line weighting
- Hook pods as standalone measure

In addition, haul mitigation is likely to be beneficial in the New Zealand fleet. There is no current internationally-recognised best practice for haul mitigation, although some suggestions for improvement in this area include:

- Improved offal management
- Improved use of haul mitigation measures

The HMS team is reviewing regulations to better meet best practice relevant to the surface longline fishery. The current measures may be strengthened by mandating the use of line weighting (alongside the use of tori lines, whilst night setting would remain an additional voluntary measure).

MPI will continue to support the Protected Species Liaison Officer Programme, which will maintain focus on seabird mitigation providing advice and assistance to fleets.

Seabird proxy measures and proxy targets (in lieu of capture rate reduction targets) have been developed in order to track progress on seabird issues. These proxy measures will be tracked throughout the year and assessed against previous year's data when available.

Five year biological risk objective Planned HMS actions for 2017/18 The level of mortality of New NPOA-Seabirds necessitates the development and Zealand seabirds in New Zealand implementation of species- and fishery- specific commercial fisheries is reduced so action plans for seabirds considered to be at very that species currently categorised as high or high risk from fishing. The HMS team has developed a Wandering Albatross Action Plan (for at very high or high risk from fishing move to a lower category of risk. Gibson's and Antipodean Albatrosses), and will implement this plan in 2017/18. Also, the team will support and provide for the Antipodean Albatross Working Group.

Five year research and development objectives

- a). Where existing mitigation measures are impractical or of limited effectiveness in reducing the mortality of New Zealand seabirds, new or improved mitigation measures have been sought and where identified are under development for all priority fisheries or fishing methods (e.g. those identified in paragraph 23 [of NPOA] and via the risk assessment),
- b). New observation and monitoring methods, especially in relation to poorly observed fisheries, are researched, developed and implemented, and
- c). Programmes of research to improve our understanding of and ability to mitigate seabird incidental mortality for at risk species are underway and key projects for very high risk species have been completed.

Planned HMS actions for 2017/18

Analyse existing mitigation measures (in conjunction with DOC and fishers) to assess if they are impractical or of limited effectiveness or have specific operational issues that may need to be overcome (to be done in conjunction with review of regulated measures outlined above).

Where resources allow, it is proposed to develop fact sheets in conjunction with industry for key species.

Assess new/emerging mitigation measures for their suitability in HMS fisheries (in conjunction with DOC and fishers), including from an operational standpoint, and consider proposing changes at RFMOs to accommodate such measures.

Monitor use of alternate monitoring methods, such as cameras, being trialled in other fisheries to determine applicability in HMS.

Encourage full uptake of non-fish bycatch reporting (and facilitate this with provision of ID guides where required).

Support the Protected Species Liaison Officer Programme in improving vessel seabird mitigation.

Support the Antipodean Albatross Working Group.

Five year international objectives

In areas beyond the waters under New Zealand jurisdiction, relevant RFMOs and governments (and also relevant industry organisations, fishing companies and fishers) understand the potential risk posed to New Zealand seabirds from fishing activities for which they have responsibility and are taking actions to reduce that risk where it is likely to be high.

Planned HMS management initiatives for 2017/18

Begin work on identifying 'high risk areas' for seabirds - apply the methodology agreed upon at CCSBT to all areas where SBT fishing takes place. Present results to CCSBT and WCPFC.

Undertake the second iteration of the southern hemisphere seabird risk assessment, using additional data and expertise provided by CCSBT Members. Present results to CCSBT and WCPFC.

Continue to seek improvements to data capture and sharing on bycatch species across RFMOs.

Advocate for the latest best practice advice to be reflected in RFMO measures.

Consider need to advocate changes to WCPFC seabird measure to add additional flexibility to allow new mitigation measures to be used (where proven effective).

5.2 SEABIRD PROXY TARGET TRACKING

	2015/16 FISHING YEAR	2016/17 Fishing year
100% compliance rate for observed mitigation use	This review considered 24 observer trips from the 2015/16 fishing year (all small vessel surface longline vessels) where Yes/No answer was provided for each of three mitigation practices. In 2015/16, observer reports did not record whether all tori line and line weighting was compliant with legislative requirements/ specifications.	To be calculated for the 2017/18 ARR in January 2018.
	Mitigation use rates in the surface longline fishery from 342 observed sets during the 2015/16 fishing year:	
	Tori lines Night setting Line weighting Use Rate 79% 89% 24% *Note: night setting is determined by comparing the observer reported start and end of set times with the hours of darkness calculated for each set date and position using the CCAMLR Nautical Twilight Calculator. Setting must start no more than 15 minutes before evening twilight and end before morning twilight to be categorised night setting. Note: reporting does not specify if lines were weighted in accordance with the regulations.	
% of fleet with SMPs in place	As of the end of the 2015/16 fishing year, there are 18 surface longline vessels with operational plans, and 3 surface longline vessels with draft operational plans. This is out of a total of 38 surface longline vessels that liaison officers engaged with during the year.	The Protected Species Liaison Officer Programme updated the operational plans to SMPs. As of April this year, the liaison officers have visited and placed SMPs on vessels operating in the surface longline fishery this season, with 100% of the fleet now with SMPs in place.
Levels of non-fish bycatch reporting is ± 20% levels of observed non-fish bycatch reporting	This review looked at both observed and unobserved trips. Unlike with other proxy targets, it was possible to split up the tuna and swordfish small vessel longline fishery groups. In the small vessel surface longline tuna fishery, 12.5% of trips self-reported catching at least one seabird. (6.2% in 2014/15). In the small vessel surface longline tuna fishery, 13.2% of trips self-reported catching at	To be calculated for the 2017/18 ARR in January 2018.
	least one seabird. (9.0% in 2015/16).	

5.3 HMS COMPLIANCE PRIORITIES FOR 2017/18

Outcome	Specific Priorities
Compliance with the CCSBT CDS	 Routine unload inspections The risk of high-grading of southern bluefin tuna Compliance with southern bluefin tuna catch documentation requirements Establish systems and processes for reporting and following up on non-compliance with <i>Fisheries (Southern Bluefin Tuna Catch Documentation Scheme) Regulations 2017</i>
Compliance with seabird mitigation rules	 Tori line use in surface longline fishery Time of setting in swordfish longline fishery Use of line weights in instances where lines were set before sunset. Fishery Officer capacity development regarding tori line and line weighting specifications
Accurate reporting of shark catches	 Compliance with shark finning ban including the appropriate use of ratios where applicable The reporting of 6th Schedule releases and dead returns in accordance with changes made as part of shark finning regulations
Compliance with protected species rules	 Accurate non-fish bycatch reporting Assessment and follow-up of observer reports
Compliance with RFMO measures	• Commercial awareness of the rules relating to fishing on the high seas for HMS
Integrity of the New Zealand Exclusive Economic Zone is maintained	Aerial and at-sea patrolsCompliance analysis and profiling

5.4 PLANNED OBSERVER DAYS FOR HMS FISHERIES FOR 2017/18

HMS observer days are allocated to reflect the effort in the identified fishery groupings. The table below reflects the proportion of effort expended in each target fleet. Observer days were allocated according to the days available for those target fisheries to achieve 10% coverage for surface longline fisheries, and the days allocated to each month proportionally.

	TOTAL DAYS	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Tuna longline ET – WCPFC	10										5	5	
Domestic tuna longline -EC STN	290	117	37								9	38	89
Domestic tuna longline - WC STN	195	30	30							33	34	34	34
Domestic longline - EC BIG/SWO	190	5	13	9	9	13	13	15	25	33	30	20	5
Domestic longline - WC BIG/SWO	70	10	10	10				10	10	10	10	10	
Domestic purse seine – SKJ	70							25	25	20			
Domestic purse seine - SKJ Super Seiner	30									30			
TOTAL HMS	855	150	106	25	10	15	15	50	70	136	102	130	131

EC East coast WC West coast

STN Southern bluefin tuna

BIG Bigeye tuna
SWO Swordfish
SKJ Skipjack tuna
ET Out-of-zone

WCPFC Western and Central Pacific Fisheries Commission

5.5 HMS RESEARCH PROJECTS FOR 2017/18

Continuation of ongoing projects

ALB2015-01 - Albacore catch sampling

- Updates the characterisation of the albacore fishery in New Zealand fisheries waters with the inclusion of data through the 2017/18 fishing year. Results will be used in WCPFC 2018 assessment update.
- Ongoing, annual
- Completion date 31/11/2018

HMS2016-01 – Data reports for New Zealand HMS fisheries for national and international obligations

- Characterises New Zealand Tuna and Swordfish fisheries, including catches and discards of associated and dependent species and incidental take of protected species, for international reporting obligations and for monitoring of the National Fisheries Plan for HMS. Annual data reports are produced for CCSBT and WCPFC.
- Ongoing, annual
- Completion date 31/11/2019

STN2016-01 – Catch-at-age data for Southern Bluefin Tuna

- Project aims to age 250 otoliths from southern bluefin tuna collected by scientific observers aboard vessels fishing in New Zealand fisheries waters during each fishing season. Data are used as inputs to stock assessments. The next update is scheduled in 2017
- Ongoing, annual
- Completion date 30/6/2019

STM2016-01 – Multi-year stock monitoring of striped marlin including logbook programme implementation

- Implementation of striped marlin recreational monitoring programme including the implementation of the logbook programme.
- Ongoing, annual
- Completion date 30/12/2019

TAG2016-01 – Management of data from gamefish tag-recapture programme

- Ongoing, annual programme that has been running for more than 40 years, with the primary objective of characterising the New Zealand recreational gamefishery. Due for review in 2017.
- Completion date 30/11/2019

Proposed new projects for 2017/18

ALB2017-01 - Albacore CPUE analysis

- The NZ target albacore troll fishery is the only fishery catching small albacore in the SW Pacific. This proposed project will determine if data from the NZ troll fishery are useful in the next WCPFC assessment update in 2018.
- Ongoing, annual
- Completion date 30/06/2018

$HMS2017\text{-}01-Catch\ sampling\ of\ bigeye\ tuna,\ yellow fin\ tuna,\ Pacific\ blue fin\ tuna,\ and\ sword fish$

- Catch sampling results are inputs to the stock assessments of these species by WCPFC. These species assessments will be updated over the next 3 years.
- Ongoing, annual
- Completion date 31/12/2020

SHA2017-01 – Shark fishery characterisation and indicators analysis

- The most recent shark fishery characterisation and indicators analysis was conducted in 2012-13 and used as inputs to the WCPFC analyses. The results of this proposed project will be used in the WCPFC update in 2019.
- Once every 3-5 years
- Completion date 30/05/2019

STM2017-01 – CPUE analysis for STM recreational fishery

- Catch and effort data for STM are one of the main data inputs for its assessment.
- This project will determine if data from the NZ recreational fishery are useful in the next assessment update in 2018.
- Ongoing, annual
- Completion date 30/06/2018