



Elimination of shark finning in New Zealand fisheries

Consequential amendments to fisheries regulations
– initial position paper

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1 Information for submitters

Written submissions on the issues raised in this discussion paper are invited from all interested parties. The closing date for submissions is 22 June 2014 at 5pm. Submissions should be directed to:

Fisheries Management Directorate
Ministry for Primary Industries
PO Box 2526
Wellington 6140

Email: NPOA-Sharks@mpi.govt.nz

Submissions will be considered by officials in the preparation of advice to Ministers. Specific questions have been posed to submitters, but these are only suggestions. Submissions on all issues that are within the scope of this consultation document will be considered.

1.1 POSTING AND RELEASE OF SUBMISSIONS

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In any case, content of submissions provided to MPI are likely to be subject to public release under the Official Information Act 1982 following requests to MPI. Please advise if you have any objection to the release of any information contained in a submission, and in particular, which part(s) you consider should be withheld, together with the reason(s) for withholding the information. MPI will take into account all such objections when responding to requests for copies and information on submissions to this document under the Official Information Act 1982.

1.2 PRIVACY

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2 Introduction

2.1 PURPOSE

This paper seeks stakeholder comment on options for regulating a ban on shark finning in New Zealand in line with intentions announced by the Minister for Primary Industries and the Minister of Conservation in January 2014. The paper analyses options for:

- The timing of the ban;
 - from 1 October 2014; or
 - a phased implementation from 1 October 2014;
- The implementation of a ban;
 - by requiring retained shark fins to be landed naturally attached (“fins naturally attached” (FNA)); or
 - by allowing shark fins to be landed not exceeding a specified weight ratio to the total shark landings (ratio approach); or
 - a combination of FNA and ratio approaches depending on the shark species.
- Dealing with unwanted shark catches.

Implementation of a ban on shark finning in New Zealand fisheries will require amendments to the following Fisheries Legislation:

- the Fisheries (Commercial Fishing) Regulations 2001;
- the Fisheries (Reporting) Regulations 2001;
- the Fisheries (Conversion Factors) Notice 2011; and
- Schedule 6 of the Fisheries Act 1996 (the Act).

2.2 CONTEXT

New Zealand recently adopted its National Plan of Action for the Conservation and Management of Sharks 2013 (NPOA-Sharks). The NPOA-Sharks sets out goals and objectives for the conservation and management of sharks in New Zealand over the next five years. The goals and objectives reflect those outlined in the International Plan of Action for the Conservation and Management of Sharks (the IPOA-Sharks). The IPOA-Sharks was adopted by the United Nations’ Food and Agriculture Organisation in response to growing international concerns about the status of global shark populations.

The NPOA-Sharks includes a goal to “Encourage the full use of dead sharks, minimise unutilised incidental catches of sharks, and eliminate shark finning in New Zealand.” The focus of this paper is on implementing a ban of shark finning in line with that goal. The NPOA-Sharks defines shark finning as the removal of the fins from a shark and the disposal of the remainder of the shark at sea. The removal of the fins from a shark where the trunk is also retained for processing is not defined as “shark finning”.

Shark finning is the subject of strong public interest, both nationally and internationally. Most of the more than 45,300 submissions received on the draft NPOA-Sharks supported a ban on shark finning. Submitters also commented on the timing of a ban, and how such a ban should be implemented. The proposed approach on these matters is outlined in this paper.

Several agencies have responsibilities for implementing aspects of the NPOA-Sharks, including MPI, the Department of Conservation (DOC), and the Ministry of Foreign Affairs and Trade (MFAT). MPI is the lead agency and is responsible for controls on fishing,

including the activity of shark finning (as well as controls on the practice of live finning in its role as a regulator of animal welfare issues).

2.2.1 International context

Shark conservation can be seen as an “iconic” marine conservation issue, reflecting concerns about declining shark populations globally. Many countries, including New Zealand, have revisited their national policies to reflect the international momentum towards more comprehensive shark conservation and management measures. International attention has focussed in particular on the issue of shark finning, which can raise concerns about animal welfare (particularly around finning of a live shark and return to the sea), sustainability, and waste (utilising only the fins of a shark).

Members of the United Nations’ Food and Agriculture Organisation adopted the IPOA-Sharks in 1999. Since then, a number of countries, including 18 of the top 26 shark fishing countries, areas and territories, have adopted an NPOA-Sharks.¹ New Zealand adopted its first NPOA-Sharks in 2008, and adopted a revised plan in 2014.

2.2.2 Domestic context – status quo

All marine fisheries in New Zealand are managed under the Act and associated regulations. Provisions for the conservation and protection of wildlife may also be used to protect specific shark species where required. The Department of Conservation is responsible for the protection of marine species under the Wildlife Act 1953.²

Within New Zealand fisheries management system, a species can either be included in the Quota Management System (QMS), or not included (non-QMS species). Total allowable catches (TACs) are set for QMS species, and comprehensive data collection protocols and monitoring are in place to reconcile catches against catch limits and provide information for the setting of sustainable catch limits.

In total, eleven elasmobranch species are managed under the QMS (comprising close to 90% of total shark catches). For the remainder of this paper, unless otherwise specified ‘QMS species’ is used to refer only to the nine QMS species that will be covered by these finning regulations. Those nine QMS species are school shark, rig, pale ghost shark, dark ghost shark, elephantfish, spiny dogfish, porbeagle shark, mako shark, and blue shark.

2.2.2.1 New Zealand shark catches

Sharks are taken as a target or bycatch in a range of fisheries in New Zealand. Total reported whole weight catches of shark³ species in New Zealand have averaged around 18,000 tonnes over the last five years. Up to 70 species have been reported caught in commercial fishing activity, although the nine QMS species referred to have made up, on average, 88% of shark catches over the most recent five years. The top five species by volume are spiny dogfish, school shark, ghost shark, elephantfish, and rig.

Annex One provides additional detail on the range of species that are caught, and the catch volumes. Annex One also provides information on the most common landed states by species. Overall, a large majority of catches are fully processed to the dressed or headed and gutted

¹ As at an FAO review in 2012; a further five of the top 26 countries were in the process of developing such a plan. Source: Fischer, J., Erikstein, K., D’Offay, B., Barone, M. & Guggisberg, S. 2012. *Review of the Implementation of the International Plan of Action for the Conservation and Management of Sharks*. FAO Fisheries and Aquaculture Circular No. 1076. Rome, FAO. 120 pp.

² Shark species protected under the Wildlife Act 1953 and the Fisheries Act 1996 are white pointer or great white shark, basking shark, and oceanic whitetip shark. Species protected), or under just the Wildlife Act (deepwater nurse shark, whale shark, and manta and devil rays). The Wildlife Act protects species in New Zealand fisheries waters, whereas the powers of the Fisheries Act can be applied to New Zealand-flagged fishing vessels and nationals to extend protection to the high seas.

³ Species proposed to be covered by the shark finning regulations (i.e. Class Chondrichthyes – excluding Batoidea)

state. In some cases, the fins of the shark may be retained alongside a separate primary processed state. Species for which fins are often landed as a secondary product along with other processed states (such as dressed trunks) include school shark, rig, and ghost sharks.

While no species of sharks are targeted for their fins in New Zealand, fin-only landings are a common processed state for some species including the highly migratory species blue shark, porbeagle shark, and mako shark. Fin-only landings are also common for carpet shark and spiny dogfishes (including northern spiny dogfish).

2.2.2.2 Economic value of sharks

Sharks provide a range of usable products including meat (fillets), fins, livers, skin, and cartilage. Sharks caught in New Zealand fisheries are sold through both domestic and export markets. It has been estimated that domestic sales of shark fillets in the 2012-13 fishing year were worth around \$18 million.

It is difficult to identify particular species and product types in most export statistics because of the way the statistics are collected. Close investigation of the value of particular product types to certain countries allows for estimation of exports of all shark products, including dried fins and wet fins (frozen) separately.

In 2013, the value of overall exports of shark products was \$24.7 million.⁴ The 2013 figure showed a decline of about \$5 million from the estimated \$30.1 million worth of exports in 2012. The decline can be attributed in part to weaker markets for both dried and wet (frozen) shark fins. Shark fin exports include those landed as a secondary product along with shark trunks. The overall value of shark fin exports in 2013 is estimated at \$2.2 million (including 8.9 tonnes of dried shark fins and an estimated 101.4 tonnes of wet fins). This figure is a decrease of around \$2.7 million from 2012 exports of shark fins.

2.2.3 Problem definition

The proposed ban on shark finning is intended to:

- address wastage or under-utilisation of shark species; and
- ensure New Zealand is clearly demonstrating its commitment to the objectives contained in the IPOA-Sharks and its own NPOA-Sharks.

A number of factors can contribute to the retention of only the fins being retained, including:

Market considerations

- Shark meat from some species is known to have very low market value, and in some cases, no market value at all even if it is sold at a loss to the fisher.
- Markets that exist may be for a particular type of product (e.g. fresh rather than frozen product).
- Some species have been identified as containing high concentrations of heavy metals in their meat, rendering them unsafe for consumption and limiting available markets.

Storage and processing

- Shark flesh can ammoniate rapidly and fishers may not be set up to process and store it appropriately to avoid contamination of both the shark meat and of target fishery catches (e.g. valuable tuna catches).

⁴ Export data provided by Seafood New Zealand

- With limited hold space on small vessels, fishers are reluctant to hold large products that are less valuable than their target species.

Costs associated with catching sharks

- Catching sharks incurs a cost on fishers (annual catch entitlement (ACE) costs, lost gear and time, reduced target catches). Retaining shark fins can be seen as a means of recouping some of these losses.

Quota Management System

- Fishers are required under the Act to retain all QMS species they catch, with the exception of those listed on Schedule 6 of the Act, which may generally be released if alive and likely to survive. For QMS species that are dead, fishers are required to retain at least part of the shark for catch accounting purposes (with the exception of spiny dogfish, which may be returned to the water dead or alive). For the reasons outlined above, it may not be desirable to retain the meat of the shark, so just the fins may be retained.
- In the absence of any additional controls, it is considered unlikely that any target shark fin fisheries would develop; it is also considered unlikely that fin-only landings would increase in fisheries where there is a valuable market for shark meat (e.g. inshore fisheries for rig and school shark).
- However, under the status quo it would remain legal for fishers to land shark fins as the primary landed state (i.e. fishers could choose to retain only the fins from any sharks they catch, with the exception of protected shark species). The circumstances outlined above would likely continue to provide incentives for fishers to fin some sharks. Given the apparent slow-down in global demand for fins, fewer fins may be landed over time, but this does not preclude future changes that provide additional incentives for fin-only landings. In fisheries where fishers need to retain at least part of the shark for QMS reporting purposes, retaining the fins would likely remain one of the easier options.
- Industry could potentially develop a voluntary undertaking not to fin sharks. Additionally, fishers may over time seek alternative uses for other shark products, allowing them to retain the fins as a secondary product but increasing overall utilisation. Fishers could continue also to release certain sharks alive under the provisions of Schedule 6 of the Act.
- International expectations would likely continue to be that countries would ban shark finning (notwithstanding the range of other controls including catch limits that New Zealand already has in place).
- Overall, MPI considers that the commitment in the NPOA-Sharks requires a regulatory ban on shark finning, and this is reinforced by the large quantities of public submissions expressing support for a finning ban (including around 45,300 form submissions).

3 Objectives

Goals and five-year objectives are established in the NPOA-Sharks. The focus of this paper is Goal 2, and in particular objective 2.4. The full list of NPOA-Sharks objectives is provided in Annex Two.

Utilisation, waste reduction and the elimination of shark finning

Goal 2. Encourage the full use of dead sharks, minimise unutilised incidental catches of sharks, and eliminate shark finning⁵ in New Zealand

Objective 2.1 Review and implement best practice mitigation methods in all New Zealand fisheries (commercial and non-commercial).

Objective 2.2 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.

Objective 2.3 Develop and implement best practice guidelines for non-commercial fishing and handling of sharks.

Objective 2.4 Eliminate shark finning in New Zealand fisheries by 1 October 2015, with one exception.⁶

Other objectives in the NPOA-Sharks include maintaining the biodiversity and long-term viability of New Zealand shark populations, based on a risk assessment framework, and continuously improving the information available to conserve and manage sharks. The proposed elimination of shark finning is intended to address concerns with the wastage aspect of shark finning; other concerns including sustainability will be addressed through different work-streams under the NPOA-Sharks.

4 Summary of preferred approach

Key decisions in relation to the regulatory framework for banning shark finning include:

- the overall format and wording of the rule for banning shark finning;
- the timing of implementation (i.e. the species for which finning should be banned from the start of the next fishing year i.e. 1 October 2014 and which (if any) may require additional time);
- The method for implementing the ban (i.e. either by landing fins naturally attached to the shark if they are to be retained, or by fins landed not exceeding a specified ratio of total shark landings);
- Consequential amendments to other fisheries legislation (e.g. to provide additional options for dealing with unwanted sharks that are dead); and
- The monitoring and enforcement framework for the regulations.

The preferred approach is summarised below. The full range of options is discussed in section 5.

Non-regulatory options to achieve the objectives in the NPOA-Sharks are discussed further in the following section. A voluntary approach to the practice of shark finning would not, on its own, provide the level of confidence in compliance that adequately reflects the importance placed on the ban by the public and international stakeholders. However, non-regulatory measures are an important element of the overall management package that is being proposed. In particular, voluntary measures will help to encourage the release of sharks and improve the survival rates of unwanted sharks that are caught alive.

⁵ Shark finning is defined for the purpose of this NPOA as the removal of the fins from a shark (Class Chondrichthyes – excluding Batoidea (rays and skates)) and the disposal of the remainder of the shark at sea. As such, removal of the fins from a shark where the trunk is also retained for processing is not defined as “shark finning”.

⁶ The exception is blue sharks, for which finning would be eliminated no later than October 2016.

Table 1: Summary of preferred approach for prohibiting shark finning

Preferred option	Element	Applies to	Rationale
A1	Timing – 1 October 2014	All species (including blue sharks)	Instead of taking a staged approach to developing the framework, it is proposed to ban finning in all fisheries now and use the two year implementation period identified in the NPOA-Sharks to monitor and make improvements where necessary.
B4	Finning ban – General regulation stating it is unlawful to land just the fins of any shark species, accompanied by removal of primary landed state reporting codes for shark fins	All species	Fishers could continue to land fins as a secondary landed state alongside another primary state such as dressed trunks, but could no longer land <i>just</i> the fins.
	Fins Naturally Attached (FNA) – Any fins must be landed naturally attached to the trunk of the shark.	All species not specifically provided with a fin ratio. Proposed for some QMS species where limited at-sea processing occurs i.e. blue shark, spiny dogfish ; and for all non-QMS species (e.g. carpet shark, seal shark, shovelnose dogfish, northern spiny dogfish, longnose chimaera, bronze whaler, hammerhead, thresher shark and others – around 40 species in total) and. This will cover over 90% of current fin-only landings (by volume greenweight).	For some QMS species including blue shark and spiny dogfish, existing utilisation is relatively low and fin-only landings are common. MPI considers there is limited scope to improve utilisation through allowing processing at sea, meaning there is little need for a ratio approach to be applied. It is also considered there is less need for processing at sea to occur for non-QMS species, where catches are lower in volume and more intermittent. Baseline monitoring is also lower for non-QMS species leaving less scope for monitoring compliance with a ratio approach.
	Fin ratio – The fins of certain QMS species may be landed as a secondary product in a ratio to the greenweight of the primary product landed.	Proposed for QMS species with high utilisation (i.e. rig, school shark, elephantfish, dark and pale ghost shark)	QMS species are comprehensively monitored, and are generally well-utilised. The fin ratio approach provides for processing at sea to continue, allowing fishers to utilise and maximise value from their catches. This approach minimises disruption to legitimate fishing operations that take sharks incidentally. Factors leading to use of a fins naturally attached approach overseas (e.g. targeted shark fin fisheries, lack of catch limits for sharks, and vessels at sea for long periods and off-loading shark products into different countries) do not apply to these species in the New Zealand context.
	Fin ratio trial – A two-year trial of the fin ratio approach for specified shark species	Proposed for selected highly migratory shark species (porbeagle and mako sharks)	Internationally, some countries manage shark finning of highly migratory species through use of a fin ratio, but in other jurisdictions including the EU and the US, there is a movement towards requiring sharks to be landed with fins naturally attached. In New Zealand, between 40 and 60% of mako and porbeagle landings from surface longline fisheries are currently processed at sea (and around 30-40% overall). A two year trial is proposed

Preferred option	Element	Applies to	Rationale
			where at sea processing is allowed to continue. The aim is to provide industry with an opportunity to demonstrate that utilisation can improve in these fisheries and that compliance with the finning ban can be readily monitored through a ratio approach.
C2	Amend Schedule 6 of the Fisheries Act 1996 for specified sharks (live/dead releases)	<p>Live releases are already allowed for blue shark, mako shark, porbeagle shark, school shark and rig, and dead or alive releases for spiny dogfish.</p> <p>It is proposed to also allow dead releases under strict conditions for blue, mako and porbeagle sharks</p>	Maintain integrity of the QMS by providing an option for fishers who catch dead sharks for which there is limited or no market.
All options	Reporting, monitoring and enforcement	All species	<p>Monitoring will focus on reported catches and landed states (including ratio of fins to other shark landings), and retention/ discards of sharks.</p> <p>Monitoring could identify the need to provide a ratio option for additional species, or to remove this option for some species. Enforcement will be based on the compliance model of Voluntary, Assisted, Directed and Enforced.</p>

5 Analysis of options

5.1 A: TIMING OF SHARK FINNING BAN IMPLEMENTATION

As outlined in section 2, controls are in place in New Zealand fisheries to prohibit the practice of live finning (i.e. the removal of fins from a shark and its return to the sea while still alive). However, it remains a legal practice for a fisher to retain just the fins from a shark and return the remainder of the (dead) shark to the sea. Such fin-only landings made up 9% of overall shark landings in 2012-13 by who green weight. The proportion of fin-only landings for a species varies substantially, depending on the particular characteristics of the fishery and the species. Fisheries in which fin-only landings are common include: spiny dogfish (15% of total landings, accounting for 750 tonnes), blue sharks (86%; 617 tonnes), porbeagle shark (58%; 48 tonnes), mako sharks (50%; 41 tonnes), and carpet sharks (16%; 54 tonnes) (all figures are for 2012-13 landings, reported by green weight).

Submissions on the NPOA-Sharks indicated that many people (including environment groups and the general public) find the practice of retaining just the fins of a shark to be unacceptable. The Minister for Primary Industries and the Minister of Conservation adopted the NPOA-Sharks in January 2014, committing to a ban on shark finning in New Zealand. This commitment removes the status quo as an option for the implementation of a finning ban.

Option A1 – adoption of regulation prohibiting fin-only landings in all fisheries from 1 October 2014 [preferred]

Option A1 is to add a new regulation to the Fisheries (Commercial Fishing) Regulations 2001 that states that fishers may not make any fin-only landings. This would be associated with removal of the primary landed state codes associated with fins (i.e. Fins (FIN), Wet fins (FIW), and Dried fins (FID) from the Fisheries (Reporting) Regulations 2001.

Under option A1, this regulation would apply to all shark species from 1 October 2014.

During development of the NPOA-Sharks it was recognised that ending shark finning would be more straightforward in some fisheries than in others. However, instead of taking a staged approach to developing the framework, under option A1 shark finning would be banned in all fisheries from 1 October 2014. The two year implementation period identified in the NPOA-Sharks would be used to monitor and make improvements where necessary.

Option A2 – adoption of regulation prohibiting fin-only landings, with phased implementation from 1 October 2014

Option A2 would be to develop regulations to prohibit finning, as outlined above, but to use a staged implementation approach. A first tranche of species would be identified for which finning would be banned from 1 October 2014, followed by a second tranche for which finning would be prohibited by 1 October 2015. Finning would be prohibited for blue shark no later than 1 October 2016. Under this proposal, coverage of the finning ban would be as follows:

- From 1 October 2014: all QMS shark species with the exception of blue sharks.
- From 1 October 2015: all remaining shark species with the exception of blue sharks.
- No later than 1 October 2016: blue sharks.

Blue shark was initially identified as a species for which implementation of a shark finning ban may be complex, because of its relatively high catches as a bycatch in surface longline

fisheries, the difficulty for fishers in avoiding blue shark catches, and the low value and lack of palatability of its flesh. For these reasons, additional time was proposed to develop appropriate solutions for blue shark catches, and to allow industry time to adjust to a finning ban. Initial indications are now that industry are already starting to limit fin-only landings of a range of species, including blue sharks, meaning early implementation of a finning ban for all species (including blue sharks) alongside the other measures outlined in section 5.3 would likely be preferable.

Option A2 would allow additional time to collect data on appropriate implementation (e.g. on landed states and conversion factors). It would also provide time to develop other solutions to preventing shark finning, such as methods of avoiding shark catches, or developing markets for shark products other than the fins.

Avoiding catches and developing markets are both considered to be medium- to long-term approaches, which will complement rather than replace the need for a finning ban. MPI considers this work could continue alongside a finning ban rather than in advance of it. Likewise, data collection can continue alongside a finning ban. There are likely advantages to acting more quickly and adopting consistent rules across all fisheries, including advantages for New Zealand's international reputation, meaning option A1 is preferred over option A2.

5.2 B: WAYS TO IMPLEMENT A SHARK FINNING BAN

The two main options for implementing a finning ban are:

- by requiring sharks to be landed with **fins naturally attached (FNA)** (with some minimal processing to allow sharks to be bled and gutted, and to allow fins to be folded against the trunk of the shark); or
- through a **ratio approach** (i.e. landed shark fins to weigh no more than a specified percentage of the greenweight determined from the landed primary product).

Option B1 – status quo

The status quo refers to a situation in which specific controls on finning are not in place, meaning monitoring and management is not currently directed at ensuring finning does not take place.

Option B2 – fins naturally attached approach

The FNA approach requires that all fins a fisher wishes to land be naturally attached to the trunk of the shark. FNA has emerged as a preferred approach internationally for eliminating shark finning. Various reasons are given for this including ease of monitoring and enforcement, potential to improve species identification and catch reporting, reduction in overall catches, and the ability to ensure a 1:1 ratio between fins and trunks.

Some of the advantages cited for FNA may be less relevant in the context of New Zealand's QMS and catch limits. For example, the requirement to land the whole shark may limit the number of sharks that can be taken in each trip (due to space restrictions), and allows for the collection of information on the sharks being landed (where they are not discarded). Directed fisheries for shark fins are not present in New Zealand, and the primary limits on shark catches are catch limits under the QMS. The monitoring advantages of FNA would apply primarily to physical inspection of catch (either at sea or at fish receivers), but physical inspections are just one of the ways in which fisheries are monitored.

The FNA approach has operational ramifications for fishers. Shark blood contains urea, which is converted to ammonia after the animal dies. Ammonia can impart an off taste in shark

meat, and is reported to taint other fish stored in close proximity. There are also practical concerns which require consideration when implementing an FNA regulation, including the safety of fishers when moving a whole shark into or out of the hold. These issues can, in part, be mitigated by allowing cuts to be made to fold the fins flat against the trunk for storage, and for the shark to be gutted and/or bled to prevent or slow the ammoniation of the meat in storage.

Requiring FNA for all sharks would affect both fisheries in which fin-only landings are common at present (less than 10% of total shark landings), and those in which other processed states such as dressed trunks are most common and fins may be retained as a secondary product, providing some additional financial value to the primary product of the shark meat. Requiring all sharks to be landed FNA would make fishing operations less efficient, and would likely decrease the quality and therefore the value of the landed catch. In some fisheries, these impacts may be justified because of the limited extent of at-sea processing, but in other fisheries where fin-only landings are rare (e.g. 1% or less of total landings), these impacts may not be justified and would not contribute to the IPOA and NPOA-Sharks goals of improving utilisation.

It is not possible to fully quantify the costs involved at this time, but costs would include time as well as direct financial impacts (i.e. decreasing quality of the catch or catch not landed). Submitters on the draft NPOA-Sharks provided information on the potential economic impact of requiring sharks to be landed with FNA. For example, one industry submission provided several examples of the contribution of shark fins as a component of overall usage of shark species. In one example given, ghost shark fins were estimated to provide an additional \$100,000 per annum to the fishing operation (landing 400–450 tonnes of ghost shark per annum and processing the catch at sea). Another example was given of a fishing company operating three inshore fishing vessels that sold \$120,000 of shark fins per annum as a by-product of their fishing activities.

Submissions from industry outline that the main shark species to be harvested commercially need to be gutted and cleaned at sea within two hours of being caught to avoid ammonia contamination of the flesh. It is considered that the problem of ammoniation may be avoided by rapid bleeding of the freshly caught animal and thorough washing of the carcass with seawater. It was submitted that cleaning at sea entails the removal of the liver and blood line along the back-bone of the animal, necessitating opening up the entire gut cavity. This cleaning process cannot be accomplished without the removal of the pectoral fins (which protrude from the underside of the fish), plus the ventral fin, anal fin and the tail fin. Once the trunk of the fish has been cleaned, fishers consider it must be subjected to a flushing process of the blood line to the rear of the carcass. This process requires the tail and associated fins to be cut off to allow the blood to be forced out of the carcass with water pressure.

Option B3 – fin ratio approach

The ratio approach requires that landed shark fins weigh no more than a specified percentage of the greenweight determined from the landed primary product. This allows existing operational practice to continue where fish is processed at sea to the most saleable landed state, such as dressed trunks. In fisheries where at-sea processing commonly occurs, fins are frequently retained and landed as a secondary landed state alongside the primary state.

Allowing at-sea processing to continue is considered to be more efficient than landing the fish whole and processing on land and enables fishers to continue to maximise value from retained shark products. This is in line with the NPOA-Sharks goal of encouraging the full use of dead

sharks, minimising unutilised incidental catches of sharks, and eliminating shark finning in New Zealand fisheries.

Under this approach, it is important that ratios are set appropriately. If ratios are set too high, a loophole may be created which allows fishers to harvest more fins than correspond to the carcasses on board. Ratio-based regulations may also provide an opportunity for high-grading, the practice of mixing carcasses and fins from different animals (i.e. different sized sharks) to maximise profit. Under current circumstances, both incentives and opportunities for this type of high-grading are believed to be limited. Shark fins have in the past received a high price at market, but shark fin exports have recently declined dramatically, and licensed fish receivers are reportedly reluctant to accept fins at present. In addition, in many fisheries, sharks of only a limited number of species are landed on any one trip, meaning limited opportunities to high-grade by retaining fins of one shark species and trunks of another.

MPI currently uses comprehensive discrepancy analysis to monitor catches in New Zealand fisheries. This existing approach can be readily applied to sharks to verify compliance with ratios (with some changes to the way in which fins as a secondary state are managed, as outlined further below).

It is likely that the ratio of fin to body weight will vary between species, between fishers (depending on the cuts made) and also depending on what the primary landed state is. Internationally a figure of 5% is often used, although this is variously used as the ratio of fin weight of processed carcass weight, rather than fins to greenweight. The approach proposed for New Zealand is to base ratios on fin weight to shark carcass weight, converted by a conversion factor to greenweight. For example, this would require a ratio of 3.3% of fin weight to shark greenweight be achieved (based on the standard generic conversion factor for wet fins of 30), but there would be scope to develop species-specific ratios as required over time. It is not proposed to place restrictions on the primary state in which sharks can be landed at present (aside from removing the option of fins as a primary state).

Other factors to consider when determining a ratio for a species is whether the ratio is based on dry or wet fin weight, and whether just primary fins (the first dorsal fin, both pectorals and the lower lobe of the caudal fin) or also secondary fins (e.g. second dorsal fin, anal fin, pelvic fins, upper caudal lobe) are landed. This should be based on existing fishery practices (i.e. the types and state of fins currently landed). The fins to be counted, and wet/dry state used when calculating the fin: greenweight ratio would be specified as part of the regulations.

To enable monitoring of landings of fins versus primary processed states, some changes would be required to the way in which landings of the secondary processed state (i.e. fins) currently occur. In particular, these would need to be landed and weighed in separate batches by species. These changes will require amendment of the Fisheries (Commercial Fishing) Regulations 2001.

Allowing a ratio approach for all shark species would potentially provide opportunities for high-grading to occur in fisheries where the value of shark fins is high relative to the rest of the shark. It would also be harder to determine through physical inspections if any excess shark fins had been landed (i.e. fins for which the body of the shark was not retained). In some instances, identifying fins by species can be challenging but genetic techniques are available to assist with monitoring. The ratio option would rely primarily on analysis of fisher and fish receiver reporting, along with observer data, to verify compliance with ratios. Given the range of shark species encountered by commercial fisheries from time to time, and the

diverse morphology of these species, it would likely be necessary to develop some species-specific ratios over time rather than relying on a single generic ratio.

Option B4 – Combined approach [preferred]

MPI's preferred approach is to require all shark species to be landed in the FNA state except for a sub-set of species for which a fin ratio option would be provided. The sub-set would consist of QMS species with existing high levels of utilisation or potential to improve utilisation.

FNA would be required for two QMS species where limited at-sea processing occurs (blue shark and spiny dogfish) and for all non-QMS species (e.g. carpet shark, northern spiny dogfish, thresher shark and others – around 40 species in total) (for more information on non-QMS species, see Annex One). It is considered there is less need for processing at sea to occur for non-QMS species, where catches are lower in volume and more intermittent, and baseline monitoring is also lower, leaving less scope to monitor compliance with a ratio approach.

The requirement to land with FNA is proposed to cover over 90% of existing fin-only landings (by volume greenweight) (refer table 2).

Blue sharks have historically had high proportions of fin-only landings (86% in 2012-13), with little other utilisation (9-16% of landings over the past 3 years landed in other processed states such as dressed). Industry has indicated limited markets are available for blue shark meat which is reflected in the limited at-sea processing at present.

Having to land sharks with FNA imposes a greater cost on fishers, in terms of reductions in quality of the product because it is difficult to fully bleed the shark without removing the fins (particularly the tail), and because of the additional hold space required to accommodate whole sharks. Therefore, a likely impact of requiring blue shark to be landed FNA is that fishers would prefer not to land the catch at all. This option may encourage additional live releases of sharks where they are caught alive, but in cases where the sharks are already dead (i.e. most of trawl fishery catches and around 10% of surface longline catches), fishers will likely require additional options for dealing with unwanted shark catches (see section 5.1.3 below).

Around 700 tonnes of blue shark were landed in the 2012-13 fishing year. Based on a reported port price of \$0.57, foregone revenue would be around \$399,000 if blue shark catches were no longer landed. However, port price information is often a poor indication of fishery value, and in this case may not reflect the value of blue shark fins. Although it is not known what portion of total fin exports are of blue shark fins, it is considered likely that blue shark has been a significant contributor to overall shark fin exports, valued at \$2.2 million.

Some fin-only landings of spiny dogfish are made (10-15% over the past 3 years), while the majority of catch is returned to the sea under Schedule 6 provisions (45-60% over the past 3 years). The remainder of the catch is landed either as fishmeal, or whole, with a very small amount processed to the dressed state. Requiring any fins to be retained to be landed naturally attached is proposed as the preferred approach for spiny dogfish because at-sea processing is very limited, and it is not seen as necessary to provide a ratio to enable current practices to continue.

Non-QMS species tend to be caught in lower quantities, and many are predominantly discarded, suggesting a relatively low market value at present. Some processing at sea does

occur, including for northern spiny dogfish, seal shark, thresher shark, broadnose sevengill shark, bronze whaler, and hammerhead shark (with processed catches ranging from 75 to 100 tonnes for northern spiny dogfish and seal shark respectively, to less than 20 tonnes for most of the remaining species in the 2012-13 fishing year). In addition, much of the routine monitoring of fisheries is focussed on ensuring the integrity of the QMS, because of the need to ensure catches remain within the overall catch limit, and that individuals are meeting their obligations under the Act.

Under option B4, MPI proposes to apply the ratio approach to five QMS species that are currently fully utilised (school shark, dark ghost shark, elephantfish, rig, and pale ghost shark). These five species comprised 51% of overall shark catches in 2012-13, and 99% of catches are fully utilised. Monitoring of QMS species is rigorous and it is considered that the current monitoring regime can be drawn upon to effectively monitor compliance with the ratio for these species.

As noted, industry consider it would be difficult to maintain the quality of the product if sharks had to be landed with fins attached because of the way in which processing is carried out at sea to minimise ammoniation of the flesh. Likely the value received from utilisation of inshore species would not be completely foregone, but the value of landings would reduce. As noted in section 2, the total value of shark exports and domestic sales is around \$45 million. This figure provides an estimate of the maximum possible impact, assuming earnings from shark processing as well as shark fins would be lost if an FNA requirement were put in place. In reality, the impact would likely be less than this (i.e. some value would still be recovered from the fishery but at reduced levels).

For two further QMS species with historical high levels of fin-only landings, it is proposed to trial the ratio approach for the first two years of the implementation of the finning ban. Between 50% and 58% of the catch of mako and porbeagle shark was landed as fins-only in 2012-13. However, there have been increased landings of the other primary states for these species in the last three years, with 39% and 32% respectively of landings in 2012-13 reported in the dressed state (up to 60% in surface longline fisheries), indicating improving utilisation. MPI considers that the ratio approach would allow for further development of markets for the meat of these sharks, and that requiring fins to be landed naturally attached at this stage would likely impede this utilisation. Focussed monitoring of compliance with the ratio and related non-regulatory measures (encouraging live release, and avoidance of unwanted catches) would occur. A review would take place in two years to determine the continued appropriateness of the ratio approach for these species.

Table 2: Fin-only landings attributed to approaches as proposed under option B4

Proposed Approach	Species	% contribution to overall fin-only landings
Fins naturally attached	Blue shark	45.3%
	Spiny dogfish	42.0%
	All non-QMS species	5.1%
TOTAL TO BE COVERED BY FINS NATURALLY ATTACHED RULES		92.4%
Fin ratio trial	Mako shark	3.0%
	Porbeagle shark	3.5%
Fin ratio	Rig	0.6%
	School shark	0.5%
	Dark ghost shark	<0.01%
	Pale ghost shark	0
	Elephantfish	0
TOTAL TO BE COVERED BY FIN RATIO RULES		7.6%

5.3 C: DEALING WITH UNWANTED SHARK CATCHES

Sharks are often a bycatch in fisheries targeting other, more valuable commercial species. In some instances, there are limited or no markets for the sharks caught. For non-QMS species, it is legal for these sharks to be returned to the sea (and reported) with no portion of the animal retained. For QMS species, fishers are required under section 72 of the Act to retain all catch, with the exception of those listed on the Schedule 6 of the Act which may generally be released if alive and likely to survive. The requirement to retain QMS species has been identified as a factor that contributes to the finning of sharks. Where a QMS shark (with the exception of spiny dogfish) arrives at the vessel dead, it must be retained, at least in part. In this case, a fisher aims to comply with the QMS by retaining some part of the shark, but using valuable hold space or processing time to retain a fish that may have no market is not in the best interest of the fisher.

Option C1 – status quo

Currently, actions around unwanted shark catch are focussed on avoiding catches and maximising live release where possible. However, with the exception of spiny dogfish, any shark that is dead upon its capture may not be returned to the sea but must be retained in order for a fisher to comply with QMS requirements.

Schedule 6 currently allows for school shark, rig, mako, porbeagle, and blue sharks to be returned to the sea if alive and likely to survive. Releases of these species are reported under a specific reporting code 'X' and are not counted against a fisher's ACE. There is also provision for spiny dogfish to be returned to the sea either dead or alive. These returns are reported under a special code 'M' and are all counted against a fisher's ACE and the TACC for spiny dogfish.

Where markets are not available, requiring the landing of the shark is not decreasing waste or increasing utilisation, as the product landed will likely be sent to a rendering plant or simply disposed of on land at a cost to the fisher. MPI considers that this cost creates a substantial incentive to illegally discard and misreport shark catches, which may reduce the ability to accurately determine actual levels of shark mortality.

Option C2 – changes to Schedule 6 provisions [preferred]

To ensure continued accurate reporting of shark catches allowing for accurate estimates of overall mortality of sharks, it is proposed that blue, porbeagle, and mako sharks caught dead

be allowed to be returned to the sea. Any shark returned to the sea dead under the amended provisions would be counted against a fisher's ACE and the TACC for that species.

In some fisheries, incentives have been identified that may lead fishers to retain sharks caught alive rather than releasing them wherever possible. In these fisheries, additional incentives are considered necessary to further encourage live releases of sharks. In order to address this, the current provisions for live release will be retained with no amendment, meaning that live returns will continue not to be counted against a fisher's ACE or the TACC for blue, porbeagle or mako sharks. It is considered that these settings will address this issue.

With amendments to Schedule 6 provisions, monitoring the use of the new provisions will be important, to ensure both that reporting remains accurate, and that provisions are only being applied to sharks that arrive at the vessel dead. Observer data may be used to quantify existing status of sharks at the boat and use of the new release codes. Use of these codes will be closely monitored, and dead returns should not exceed expected levels. Any amendments will also be linked to industry commitments to minimise the use of the new provisions and particularly, to apply them only to sharks that were dead on arrival at the vessel. Penalty provisions relating to breaches of Schedule 6 conditions are outlined in section 252 of the Act, and include a maximum fine of \$250,000.

Under option C2, there are reduced incentives for fishers to misreport shark catches allowing for continued accurate information on overall mortalities of sharks, as well as providing fishers an option for unwanted shark catches that arrive at the vessel already dead.

6 Proposed implementation, monitoring and review

6.1.1 Subsidiary changes and penalty provisions

Implementation of the shark finning ban is proposed to involve changes to the following pieces of legislation:

Legislation	Change
Fisheries Act 1996	Changes to Schedule 6 to allow for return of dead blue, mako and porbeagle sharks to the sea (<i>if option C2 adopted</i>).
Fisheries (Commercial Fishing) Regulations 2001	<ul style="list-style-type: none"> • Interpretation section: Define 'shark' and 'fins naturally attached' • Create new regulation prohibiting shark finning • Part 3: Regulate requirement to separate fins by species • Part 6: Define offence level of finning regulation
Fisheries (Reporting) Regulations 2001	<ul style="list-style-type: none"> • Remove 'dried fins', 'dried fins by-product' (DSB), 'wet fins', 'wet fins by-product' (WSB) definitions • Update 'shark fins' (as by-product) definition (SHF) • Provide 'FNA' state code definition • Add new destination type code 'Z' (for reporting of dead mako, porbeagle and blue shark, with returns to be recorded against ACE) and amend destination type code 'X' to clarify only covers live returns and is not counted against ACE (<i>if option C2 adopted</i>) • Add new Part 6B to allow for the return of dead sharks of particular species (<i>if option C2 adopted</i>)
Conversion Factor Notice	<ul style="list-style-type: none"> • Remove 'fins' conversion factor and specific fin conversion factors for blue shark, mako shark and porbeagle shark. • Add in FNA conversion factor/s
Shark Finning Circular (new)	<ul style="list-style-type: none"> • List species for which a ratio is provided • Specify ratios for species/species groups

It is proposed that the shark finning regulations be subject to the offence provisions in regulation 85(2) of the Fisheries (Commercial Fishing) Regulations 2001. Under regulation 85(2), the penalty for non-compliance with the over-arching regulation or any consequential regulations is a fine not exceeding \$20,000. Because landing fins not in compliance with the regulations would likely also involve other offences (e.g. reporting offences, Schedule 6 provisions), the standard penalty regime included in the Act would also apply. Gross non-compliance would be subject to penalties outlined in section 252 of the Act, which provides for fines up to \$250,000 and/or imprisonment for a term up to 5 years.

6.1.2 Non-regulatory measures

The implementation of the shark finning prohibition will be accompanied by collaboration with industry, research projects, the development of educational programmes, and non-regulatory measures including voluntary codes of conduct and operational procedures.

MPI has committed to carrying out research into methods to avoid unwanted catches of sharks and into best practice methods to maximise survival of sharks released alive after being caught. This research is an important aspect of the finning ban, most notably for blue sharks where they are caught in large volumes and often released alive. Longer term strategies may include the use of electromagnetic forces to deter sharks, as well as investigation of areas or times of high shark catches that could potentially be avoided.

Educational programmes for fishers include the distribution of codes of conduct and operational procedures that provide information on best practice for release sharks alive, but

also avoidance of unwanted catches, better identification of shark species, and how to accurately report all catches and processing of sharks.

6.1.3 Monitoring

New Zealand's fisheries management system has comprehensive monitoring systems in place that include rigorous reporting requirements for fishers, at-sea observers, inspections at-sea, in port, and of fish receiving business, as well as retrospective analyses of data collected. Existing systems will be drawn upon to monitor new regulations, however future monitoring will need to be targeted appropriately and effectively.

In preparation for the shark finning ban, information will need to be collected and collated regarding shark catches, including life status at the vessel, handling, releases, and processing of retained sharks. This will help to set a baseline for comparison to data collected after the implementation of the ban.

Once the finning ban is in place, usual monitoring will continue, with additional focus on several aspects of the new regime. Landed states of shark catches, in particular the fin to greenweight ratios will be monitored to assess the accuracy of the ratio established, and also to determine any instances of non-compliance. This will require examination of trends across the fishery and also from individual fishers. Trends in retained and released catches and life status of release will be monitored to ensure that Schedule 6 provisions are being used appropriately and there are no significant changes in the proportion of sharks that are arriving at vessels already dead.

At-sea observers will continue to be a valuable monitoring tool, providing information on the accuracy of conversion factors and the fin-greenweight ratios. Observers also collect valuable information on the life status of sharks upon their arrival at vessels, and provide insight to standard practices onboard vessels, including their compliance with the finning ban. The information collected by observers may also be used to compare practices across a fleet to determine if behaviour is modified when an observer is onboard, and indication that vessels may be less compliant and warrant further investigation.

6.1.4 Enforcement

Compliance activities will be consistent with the current approach taken in New Zealand fisheries. This includes the use of the 'VADE' (Voluntary, Assisted, Directed and Enforced) model, which operates on a collaborative basis and sees enforcement working with fishing vessels to comply. Action is taken where there is deliberate or gross non-compliance identified.

Enforcement of compliance with the fin-greenweight ratio will be similar to that used for conversion factors in general, where there is expected to be some variation around the specified number. Sampling by observers at-sea will provide a view on how wide the standard variation may be and allow for compliance entities to determine where a ratio will be significantly different to that defined in regulation. In addition, statistical analyses will be used to identify potential systematic non-compliance.

6.1.5 Review

The objective in the NPOA-Sharks 2013 to eliminate finning in New Zealand provided until 1 October 2015 to implement the ban for all species except for blue shark and one additional year to include blue shark. It is proposed that the finning ban be implemented for all species for 1 October 2014. The intention is to use the additional two years allowed for in the NPOA-

Sharks 2013 to actively monitor the finning ban and ensure that the settings are pragmatic, effective, and that finning is eliminated.

Review of all aspects of the regulatory package will be ongoing, with confirmation that conversion factors and ratios are appropriate, and that fishers are able to comply with all regulations. The regulatory framework may be amended to ensure that any problems identified as part of this review are addressed.

It is proposed that the regulation be drafted in a manner that allows the Minister, by Gazette notice or other tool, to move species between the two approaches as appropriate. This allows the regime to be flexible to changes in fishing practices and responsive if concerns are identified.

The NPOA-Sharks 2013 will be fully reviewed beginning in 2017 which will provide an opportunity for a high level review of the effectiveness and implementation of the shark finning prohibition and associated regulatory framework.

7 How to have your say

Written submissions on the issues raised in this discussion paper are invited from all interested parties. The closing date for submissions is 22 June 2014 at 5pm. Submissions should be directed to:

Fisheries Management Directorate
Ministry for Primary Industries
PO Box 2526
Wellington 6140

Email: NPOA-Sharks@mpi.govt.nz

Submissions will be considered by officials in the preparation of advice to Ministers. Specific questions have been posed to submitters, but these are only suggestions. Submissions on all issues that are within the scope of this consultation document will be considered.

Annex One: Shark landed catch information

Table 2: Shark live releases (tonnes), catches (tonnes) and proportions by processed state for all New Zealand fisheries. Shading indicates QMS species.

All fisheries 2012-13				Not retained		Retained and landed							
	Species	Sch. 6 live releases* (tonnes)	Total landings (tonnes)	SPD returns	Discarded (non-QMS)	Greenweight (whole)	Dressed	Gutted	Headed and Gutted	Filletted	Fins	Livers	Fishmeal
Spiny dogfish	SPD		5,016.79	0.61	0	0.07	0.01	0	0	0	0.12	0	0.19
School shark	SCH	2.02	3,149.55	0	0	0.01	0.90	0	0.08	0	0	0	0
Ghost shark	GSH		1,710.03	0	0	0.03	0.91	0.02	0	0	0	0	0.01
Elephantfish	ELE		1,426.63	0	0	0	0.10	0.89	0	0	0	0	0
Rig	SPO	9.75	1,298.82	0	0	0.02	0.87	0	0.10	0	0.01	0	0
Blue shark	BWS	23.16	717.06	0	0	0.01	0.08	0	0	0	0.86	0	0
Pale ghost shark	GSP		700.26	0	0	0	0.90	0	0.02	0	0	0	0.08
Other sharks and dogfish	OSD		585.34	0	0.43	0	0	0	0	0	0	0.21	0.36
Carpet shark	CAR		336.72	0	0.84	0	0	0	0	0	0.16	0	0
Seal shark (black shark)	BSH		313.94	0	0.27	0	0.22	0	0.02	0	0	0.21	0.28
Shovelnose dogfish	SND		176.56	0	0.38	0.01	0.12	0	0	0	0	0.35	0.14
Longnose chimaera	LCH		116.54	0	0.14	0.03	0	0	0	0	0	0	0.83
Northern spiny dogfish	NSD		92.06	0	0.29	0.02	0.46	0	0.02	0	0.16	0	0.05
Porbeagle shark	POS	11.78	82.18	0	0	0	0.32	0	0	0	0.58	0	0.03
Mako shark	MAK	3.54	81.96	0	0	0.01	0.39	0	0	0.05	0.50	0	0.04
Baxter's lantern dogfish	ETB		40.53	0	0.13	0.02	0	0	0	0	0	0.11	0.73
Thresher shark	THR		36.77	0	0.48	0.01	0.37	0	0.02	0.05	0	0	0.06
Slender smooth-hound	SSH		34.92	0	0.78	0.05	0.01	0	0.15	0	0	0	0.01
Deepwater dogfish	DWD		34.67	0	0.40	0	0	0	0	0	0	0	0.60
Lucifer's dogfish	ETL		32.20	0	0.48	0	0	0	0	0	0	0	0.52
Leafscale gulper shark	CSQ		29.93	0	0.76	0	0	0	0	0	0	0.23	0.01
Broadnose sevengill shark	SEV		19.59	0	0.44	0	0.50	0	0.04	0	0	0	0.01
Purple chimaera	CHG		13.32	0	0.90	0	0	0	0	0	0	0	0.10

All fisheries 2012-13				Not retained		Retained and landed							
	Species	Sch. 6 live releases* (tonnes)	Total landings (tonnes)	SPD returns	Discarded (non-QMS)	Greenweight (whole)	Dressed	Gutted	Headed and Gutted	Filletted	Fins	Livers	Fishmeal
Bronze whaler shark	BWH		10.52	0	0.05	0.07	0.70	0	0.12	0	0.05	0	0
Hammerhead shark	HHS		9.64	0	0.02	0.03	0.79	0	0.15	0	0	0	0
Longnose velvet dogfish	CYP		8.20	0	0.08	0.01	0	0	0	0	0	0	0.92
Prickly dogfish	PDG		4.20	0	0.94	0	0	0	0	0	0	0	0.06
Sixgill shark	HEX		4.05	0	0.99	0	0	0	0	0	0	0	0.01
Plunket's shark	PLS		3.20	0	0.99	0	0	0	0	0	0	0	0.01
Smooth skin dogfish	CYO		3.04	0	0.69	0.03	0	0	0	0	0	0	0.28
Chimaera spp.	CHI		2.17	0	1.00	0	0	0	0	0	0	0	0
Cat shark	APR		1.16	0	0.03	0.11	0	0	0	0	0	0	0.86
Sharpnose sevengill shark	HEP		0.98	0	0.97	0.02	0.01	0	0	0	0	0	0
Chimaera, purple	CHP		0.86	0	0.04	0.27	0	0	0	0	0	0	0.69
Cat shark	CSH		0.30	0	1.00	0	0	0	0	0	0	0	0
Dawson's cat shark	DCS		0.16	0	1.00	0	0	0	0	0	0	0	0
Bigeye thresher	BET		0.09	0	1.00	0	0	0	0	0	0	0	0
Pointynose blue ghost shark	HYP		0.07	0	0.14	0	0	0	0	0	0	0	0.86
Portuguese dogfish	CYL		0.06	0	0.66	0.34	0	0	0	0	0	0	0
Prickly shark	ECO		0.04	0	0	0.05	0	0.95	0	0	0	0	0
Roughskin dogfish	SCM		0.03	0	0	1.00	0	0	0	0	0	0	0
Widenose chimaera	RCH		0.02	0	0.94	0.06	0	0	0	0	0	0	0
McMillan's cat shark	PCS		0	0	1.00	0	0	0	0	0	0	0	0
Totals			16,095.15	0.19	0.05	0.03	0.41	0.08	0.03	0	0.09	0.02	0.10

*Live releases of sharks are not included in total landings or the processed states information

Annex Two: NPOA-Sharks goals and objectives

Goal	Five-year objectives
Biodiversity and long-term viability of shark populations 1. Maintain the biodiversity and long-term viability of New Zealand shark populations based on a risk assessment framework with assessment of stock status, measures to ensure any mortality is at appropriate levels, and protection of critical habitat.	<p>Objective 1.1 Develop and implement a risk assessment framework to identify the nature and extent of risks to shark populations.</p> <p>Objective 1.2 Systematically review management categories and protection status to ensure they are appropriate to the status of individual shark species.</p> <p>Objective 1.3 For shark species managed under the QMS, undertake an assessment to determine the stock size in relation to B_{MSY} or other accepted management targets and on that basis review catch limits to maintain the stock at or above these targets.</p> <p>Objective 1.4 Mortality of all sharks from fishing is at or below a level that allows for the maintenance at, or recovery to, a favourable stock and/or conservation status giving priority to protected species and high risk species.</p> <p>Objective 1.5 Identify and conserve habitats critical to shark populations.</p> <p>Objective 1.6 Ensure adequate monitoring and data collection for all sectors (including commercial, recreational and customary fishers and non-extractive users) and that all users actively contribute to the management and conservation of shark populations.</p>
Utilisation, waste reduction and the elimination of shark finning 2. Encourage the full use of dead sharks, minimise unutilised incidental catches of sharks, and eliminate shark finning ⁷ in New Zealand	<p>Objective 2.1 Review and implement best practice mitigation methods in all New Zealand fisheries (commercial and non-commercial).</p> <p>Objective 2.2 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.</p> <p>Objective 2.3 Develop and implement best practice guidelines for non-commercial fishing and handling of sharks.</p> <p>Objective 2.4 Eliminate shark finning in New Zealand fisheries by 1 October 2015, with one exception.⁸</p>
Domestic engagement and partnerships 3. All commercial, recreational and customary fishers, non-extractive users, Maori, and interested members of the New Zealand public know about the need to conserve and sustainably manage shark populations and what New Zealand is doing to achieve this.	<p>Objective 3.1 Capture and reflect, through meaningful engagement, the social and cultural significance of sharks, including their customary significance to Maori, in their conservation and management.</p> <p>Objective 3.2 Communication and information sharing between government agencies and stakeholders is effective, with strategies developed and implemented to promote the conservation and sustainable management of shark populations.</p> <p>Objective 3.3 Encourage compliance with regulations, implementation of best practice (including catch avoidance and correct handling), and co-operation with ongoing research among commercial and non-commercial stakeholders. In particular, encourage reporting of any illegal practices (especially live finning) that may be observed.</p>
Non-fishing threats 4. New Zealand's non-fishing anthropogenic effects do not adversely affect long-term viability of shark populations and environmental effects on shark populations are taken into account	<p>Objective 4.1 Non-fishing anthropogenic and environmental threats to shark populations are understood and, where appropriate, managed.</p>

⁷ Shark finning is defined for the purpose of this NPOA as the removal of the fins from a shark (Class Chondrichthyes – excluding Batoidea (rays and skates)) and the disposal of the remainder of the shark at sea. As such, removal of the fins from a shark where the trunk is also retained for processing is not defined as “shark finning”.

⁸ The exception is blue sharks, for which finning would be eliminated no later than October 2016.

Goal	Five-year objectives
<p>International engagement</p> <p>5. New Zealand actively engages internationally to promote the conservation of sharks, the management of fisheries that impact upon them, and the long-term sustainable utilisation of sharks.</p>	<p>Objective 5.1 New Zealand ensures that it meets its international obligations and receives positive recognition for its efforts in the conservation, protection and management of sharks through active engagement in international conservation and management agreements relevant to sharks.</p> <p>Objective 5.2 New Zealand actively investigates and decides whether to become a signatory to the Convention on Migratory Species (CMS) Memorandum of Understanding on the Conservation of Migratory Sharks (MoU) in advance of the next Meeting of Signatories in 2015.</p> <p>Objective 5.3 New Zealand collaborates with neighbouring countries to better understand the population dynamics of highly migratory sharks, protected sharks and any other shark species of special interest.</p> <p>Objective 5.4 New Zealand proactively contributes to and advocates for improved data collection and information sharing of commercial catches and incidental bycatch of sharks within relevant Regional Fisheries Management Organisations (RFMOs).</p> <p>Objective 5.5 New Zealand encourages fishing countries, coastal States, and other regional organisations to develop and implement best practice Plans of Action for conserving and managing sharks, where they have not already done so.</p>
<p>Research and information</p> <p>6. Continuously improve the information available to conserve sharks and manage fisheries that impact on sharks, with prioritisation guided by the risk assessment framework.</p>	<p>Objective 6.1 Ensure information collection systems and processes are sufficient to inform management of shark populations</p> <p>Objective 6.2 Undertake a research programme, guided by the risk assessment framework, to increase understanding of and improve the management of shark populations.</p> <p>Objective 6.3 Implement research to inform the development of recovery plans appropriate to protected species</p>