



New Zealand National Report

Second Meeting of the Signatories

Memorandum of Understanding on the Conservation of Migratory Sharks

15-19 February 2016, San Jose, Costa Rica

New Zealand is pleased to submit its first National Report for the Memorandum of Understanding on the Conservation of Migratory Sharks (MOU). New Zealand is committed to the ongoing conservation and management of global shark populations. On 6 July 2015, New Zealand became a signatory to the MOU. This decision has ensured that New Zealand is well placed to continue to play an active role in supporting international shark conservation efforts. New Zealand also works with other countries throughout the Pacific region on fisheries management issues, and will continue to actively engage in the conservation and management of the region's fisheries.

New Zealand's Domestic Management Measures and Legislative Framework

New Zealand's fisheries waters are home to at least 113 species of shark, including five of the seven populations currently listed on Annex I of the MOU. New Zealand prides itself on basing its shark management on the best available scientific information, setting informed catch limits for commercially caught species, regularly monitoring those taken in lesser quantities, and affording complete protection for other species as required by biological characteristics and population status.

New Zealand's domestic legislative framework

New Zealand's legislative framework for marine fisheries is comprised of the following:

- *The Fisheries Act 1996*: This Act provides for the management and sustainable utilisation of fisheries resources. All marine fisheries in New Zealand are managed under the Fisheries Act and associated regulations - this includes all commercial and non-commercial fishing during which sharks are either the target species or are caught incidentally as bycatch. The Fisheries Act is largely implemented through the Quota Management System (QMS).
- *The Wildlife Act 1953*: This Act outlines provisions for the conservation and protection of wildlife, including marine species. The Act currently provides protection for the following shark and ray species: oceanic whitetip shark (*Carcharhinus longimanus*); basking shark (*Cetorhinus maximus*); deepwater nurse shark (*Odontaspis ferox*); white shark (*Carcharodon carcharias*); whale shark (*Rhincodon typus*); manta ray (*Manta birostris*); and spinetail devil ray (spinetail mobula) (*Mobula japonica*).
- *The Animal Welfare Act 1999*: This Act makes it an offence to remove any fins from a shark and return it to the sea alive.

New Zealand's fisheries management system

There are four categories within New Zealand's fisheries management system:

Protected: species for which utilisation is not considered appropriate

Schedule 4C: species which may not be targeted by fishing activity

Quota Management System: species for which utilisation is considered acceptable; catch limits are set based on the best available scientific information

Open access: species which are not included in any other category

Growing and Protecting New Zealand

The QMS, established under Part 4 of the Fisheries Act 1996, helps ensure sustainable utilisation of fisheries resources through the direct control of harvest levels for each species in a nominated geographical area. For species managed within the QMS, a total allowable catch (TAC) is set which maintains, or moves, the stock towards a biomass at or above B_{MSY} (the biomass that can support harvest at the maximum sustainable level).

For migratory species, the TAC is set at a level that the New Zealand Minister for Primary Industries considers appropriate to achieve the purpose of the Fisheries Act 1996 (i.e. to enable utilisation while ensuring sustainability). The species' biological characteristics and all available stock status information are taken into account in the setting of catch limits. The catch limits are strictly enforced and serve to ensure the sustainability of any fisheries mortality of QMS species (targeted or non-targeted).

New Zealand management of MOU listed shark species

Three of the species currently listed on Annex I of the MOU are protected under the Wildlife Act 1953: basking shark (*Cetorhinus maximus*), whale shark (*Rhincodon typus*), and white shark (*Carcharodon carcharias*). For these species, any fisher who accidentally captures an individual must report it to officials and must return it to the sea as soon as possible without retaining any portion of the individual.

The remaining species listed on Annex I of the MOU for which New Zealand is a range state (i.e. shortfin mako (*Isurus oxyrinchus*) and porbeagle (*Lamna nasus*)) are managed within the QMS and have catch limits in place to ensure the sustainability of those populations. We note that while New Zealand does have a population of spiny dogfish (*Squalus acanthias*), which is managed within the QMS, the southern hemisphere population - which occurs in New Zealand waters - is not included in Annex I of the MOU. Abundance indices for New Zealand populations of spiny dogfish are all currently at or above the long term average indicating healthy or growing populations¹.

New Zealand is also a range state for five of the species proposed for listing on Annex I of the MOU. Two of these (manta ray (*Manta birostris*) and spinetail devil ray (*Mobula japanica*)) are protected under New Zealand's Wildlife Act 1953. The remaining three are currently open access: silky shark (*Carcharhinus falciformis*) and two species of thresher shark (common thresher (*Alopias vulpinus*) and bigeye thresher (*Alopias superciliosus*)). These species are not targeted in New Zealand fisheries. Catches are currently low and are monitored and reviewed annually to ensure that additional management is not required.

New Zealand is not a range state for longfin mako, any sawfish species, reef manta ray (*Manta alfredi*), great hammerhead shark (*Sphyrna mokarran*), scalloped hammerhead shark (*Sphyrna lewini*), or pelagic thresher shark (*A. pelagicus*), however these species may occasionally pass through New Zealand waters.

New Zealand's National Plan of Action – Sharks

In addition to the QMS, the conservation and management of sharks in New Zealand is guided by the National Plan of Action for the Conservation and Management of Sharks (NPOA) <http://www.mpi.govt.nz/document-vault/1138>), which was prepared in fulfilment of the International Plan of Action for the Conservation and Management of Sharks (IPOA). Revised in 2013, the NPOA was drafted through a collaborative process involving the Ministry for Primary Industries, the Department of Conservation, the Ministry of Foreign Affairs and Trade, and a range of stakeholders including environmental groups and members of the fishing industry. The NPOA will be reviewed in 2017 and revised in 2018 to ensure the ongoing effectiveness of New Zealand's efforts to address the conservation of shark species and management of the fisheries that catch them.

¹ Ministry for Primary Industries (2015). Fisheries Assessment Plenary, May 2015: stock assessments and stock status. Compiled by the Fisheries Science Group, Ministry for Primary Industries, Wellington, New Zealand, 1477p. (<http://www.mpi.govt.nz/document-vault/8304>)

The NPOA sets out goals and five-year objectives that aim to provide direction for management actions to improve the conservation, protection and management of sharks over time. The five-year objectives emphasise the need for ongoing research and collaboration with a wide range of stakeholders, both domestic and international. An advisory group has been established to monitor progress against the objectives of the NPOA and to discuss developments in mitigation or other management measures.

Key management actions recently completed in support of the NPOA's goals and objectives include the following:

- A level 1 risk assessment, analysing the level of risk from fishing to all shark species that occur in New Zealand.² The risk assessment will guide prioritisation of research and management measures.
- A review of the current management categories of all shark species in New Zealand, resulting in one species being prioritised for further analysis for potential introduction to the QMS.
- A review and documentation of the status of shark species and monitoring approaches under the QMS .
- The implementation of a ban on shark finning³ in all New Zealand fisheries from 1 October 2014. More information is available here: <http://www.fish.govt.nz/en-nz/Environmental/Sharks/Eliminating+shark+finning+in+New+Zealand.htm>.
- A decision by the New Zealand Government to become a signatory to the MOU in July 2015.

The NPOA recognises the importance of scientific information to inform appropriate protection and other management measures (i.e. catch limits) for shark species. All recent research on shark species in New Zealand has been collated and new research procured to fill gaps identified through the risk assessment, regional fisheries management organisation discussions, and stock status reviews. Highlights of relevant recently completed and ongoing research on shark species in New Zealand include the following:

- Analysis of potential abundance indicators for pelagic shark species.⁴
- Movement studies of porbeagle, hammerhead, and great white sharks (in progress)⁵.
- Stable isotope analyses of highly migratory species (in progress).
- Provision of expert input to Western and Central Pacific Fisheries Commission (WCPFC) processes, including an assessment of southern hemisphere porbeagle sharks (in progress).
- Calculation of appropriate conversion factors and fin-whole weight ratios for shark species where overall utilisation is high.⁶
- Review of mitigation options for shark bycatch in fisheries, including pelagic species in longline fisheries, protected rays in purse seine fisheries (in progress) and basking sharks in trawl fisheries (in progress).⁷
- Studies of commercial catch characteristics and other information for a number of pelagic species.⁸
- Development of a quantitative risk assessment framework for sharks and fish species to build on the Level 1 risk assessment published in 2015 (in progress).

² Ford et al. (2015) Qualitative (Level 1) Risk Assessment of the impact of commercial fishing in New Zealand Chondrichthyans. New Zealand Aquatic Environment and Biodiversity Report No. 157. 111 p. (<http://www.mpi.govt.nz/document-vault/9803>)

³ Note that the Animal Welfare Act 1953 already makes it an offence to remove the fin from a shark and return it to the sea alive.

⁴ Francis, M.P. et al (2014). Indicator based analysis of the status of New Zealand blue, mako and porbeagle sharks. New Zealand Fisheries Assessment Report 2014/69. 109 p. (<http://www.mpi.govt.nz/document-vault/5149>)

⁵ <https://www.niwa.co.nz/coasts-and-oceans/research-projects/white-sharks>

⁶ Francis, M.P. (2014) Estimation of fin ratios and dressed weight conversion factors for selected shark species. New Zealand Fisheries Assessment report 2014/68. 31 p. (<http://www.mpi.govt.nz/document-vault/4734>)

⁷ Howard, S. (2015) Mitigation options for shark bycatch in longline fisheries. New Zealand Aquatic Environment and Biodiversity Report No. 148. 47 p. (<http://www.mpi.govt.nz/document-vault/6364>)

⁸ Francis, M.P. (2015). Size, maturity and age composition of porbeagle sharks observed in New Zealand tuna longline fisheries. New Zealand Fisheries Assessment Report 2015/16. 30 p (<http://www.mpi.govt.nz/document-vault/6889>); and McGregor, V.I., Horn, P.L. (2015) Factors affecting the distribution of highly migratory species in New Zealand waters. New Zealand Aquatic Environment and Biodiversity Report No. 146. 119 p. (<http://www.mpi.govt.nz/document-vault/5575>)

Following the implementation of the ban on shark finning from 1 October 2014, a review of the first year of fisher compliance with the finning regulations was undertaken. This review indicated that reported catches of shark species were not significantly different from those reported in previous years, and overall compliance with the new regulations was high.

The Ministry for Primary Industries will continue to collaborate with other New Zealand Government agencies and external stakeholders to ensure appropriate conservation and management of all shark species going forward. In particular, attention will be focused on those species estimated to be at high risk from fishing activity and those species which have been identified through other processes such as the Convention on the Conservation of Migratory Species (CMS) and the MOU as requiring special attention.