

# SHARKS MEMORANDUM OF UNDERSTANDING - NATIONAL REPORTING 2018

## FORMAT FOR NATIONAL REPORTS

The purpose of this reporting format is to monitor the implementation of the Conservation Plan. Its structure is therefore based on the five objectives of the Conservation Plan.

The form aims to gather information on a species-specific level to the greatest extent possible. However, should species-specific information not be available, Signatories may provide information on a general level.

## I. General information

Year:

> 2018

Signatory:

> New Zealand

### Report submitted by:

Name:

> Tiffany Bock, Fisheries New Zealand

Position:

> Team Manager Deepwater Fisheries

Institution:

> Fisheries New Zealand

Address:

> 25 The Terrace, Wellington

Email:

> tiffany.bock@mpi.govt.nz

Telephone:

> +6421761265

Website:

> <https://www.fisheries.govt.nz/fisheriesnz/>

## II. Objectives of the Conservation Plan

### Objective A: Improving understanding of migratory shark populations through research, monitoring and information exchange

A 1. Which of these Annex I species are found in your waters?

- Alopias superciliosus*
- Alopias vulpinus*
- Carcharodon carcharias*
- Cetorhinus maximus*
- Isurus oxyrinchus*
- Lamna nasus*
- Manta birostris*
- Mobula japonica*
- Mobula mobular*
- Rhincodon typus*

A 2. Is your government compiling relevant data for improving understanding of migratory shark populations through research, monitoring and information exchange for species in Annex 1?

- Yes

Please choose all species for which your government is compiling data from the list below:

- Alopias superciliosus*
- Alopias vulpinus*
- Carcharodon carcharias*
- Cetorhinus maximus*
- Isurus oxyrinchus*
- Lamna nasus*
- Manta birostris*
- Mobula japonica*
- Mobula mobular*
- Rhincodon typus*

**Alopias superciliosus** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

- Population demographics; (defined as size, dynamics, structure and abundance)
- Distributional range
- Identifying species that are most vulnerable to human activities and fisheries
- Provide information about research, initiatives, and programmes etc.:

> New Zealand recently carried out a stock status assessment of Pacific A. superciliosus for the Western and Central Pacific Fisheries Commission.

New Zealand also recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

- Provide information about monitoring activities:

> New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

**Alopias vulpinus** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

- Population demographics (defined as size, dynamics, structure and abundance)
- Distributional range
- Identifying species that are most vulnerable to human activities and fisheries
- Provide information about research, initiatives, and programmes etc.:

> New Zealand recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

- Provide information about monitoring activities:

> New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

**Carcharodon carcharias** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

- Population demographics; (defined as size, dynamics, structure and abundance)
- Critical seasons

- Essential marine habitats
- Distributional range
- Migration corridors
- Behaviour and ecology
- Threats to conservation
- Identifying species that are most vulnerable to human activities and fisheries
- Provide information about research, initiatives, and programmes etc.:

> New Zealand has undertaken a comprehensive study of behaviour, habitats, migrations, etc. through a tagging programme.

New Zealand also recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

- Provide information about monitoring activities:

> New Zealand is working with the Commonwealth Scientific and Industrial Research Organisation in Australia to monitor the abundance of eastern Australian/New Zealand population, using close kin genetics.

New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

**Cetorhinus maximus** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

- Population demographics; (defined as size, dynamics, structure and abundance)
- Distributional range
- Identifying species that are most vulnerable to human activities and fisheries
- Provide information about research, initiatives, and programmes etc.:

> New Zealand recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

- Provide information about monitoring activities:

> New Zealand requires reporting of any interactions with *C. maximus* during commercial fishing activity and regularly monitors interactions.

**Isurus oxyrinchus** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

- Population demographics; (defined as size, dynamics, structure and abundance)
- Critical seasons
- Essential marine habitats
- Distributional range
- Migration corridors
- Behaviour and ecology
- Identifying species that are most vulnerable to human activities and fisheries
- Provide information about research, initiatives, and programmes etc.:

> New Zealand has a satellite tracking programme to monitor distribution, habitat, migration and behaviour of *I. oxyrinchus*.

New Zealand also recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

- Provide information about monitoring activities:

> New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

In addition, New Zealand monitors *I. oxyrinchus* through indicator analyses (e.g. standardised CPUE, distribution, size composition, and sex ratio).

**Lamna nasus** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

- Population demographics; (defined as size, dynamics, structure and abundance)
- Critical seasons
- Essential marine habitats
- Distributional range
- Migration corridors
- Behaviour and ecology
- Identifying species that are most vulnerable to human activities and fisheries
- Provide information about research, initiatives, and programmes etc.:

> New Zealand has a satellite tracking programme to monitor distribution, habitat, migration and behaviour of *L. nasus*.

New Zealand also recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

Provide information about monitoring activities:

> New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

In addition, New Zealand monitors *L. nasus* through indicator analyses (e.g. standardised CPUE, distribution, size composition, and sex ratio).

**Manta birostris** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

Distributional range

Identifying species that are most vulnerable to human activities and fisheries

Provide information about research, initiatives, and programmes etc.:

> New Zealand recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

Provide information about monitoring activities:

> New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

**Mobula japonica** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

Population demographics; (defined as size, dynamics, structure and abundance)

Critical seasons

Essential marine habitats

Distributional range

Migration corridors

Behaviour and ecology

Threats to conservation

Identifying species that are most vulnerable to human activities and fisheries

Provide information about research, initiatives, and programmes etc.:

> Note: species considered same as *Mobula mobular*.

New Zealand has a satellite tagging programme of rays caught and released by purse seine vessels including estimation of post-release mortality and analysis of seasonal movements.

New Zealand also recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

Provide information about monitoring activities:

> New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

**Mobula mobular** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

Provide information about research, initiatives, and programmes etc.:

> Note: species considered same as *Mobula japonica*

New Zealand has a satellite tagging programme of rays caught and released by purse seine vessels including estimation of post-release mortality and analysis of seasonal movements.

New Zealand also recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

Provide information about monitoring activities:

> New Zealand regularly collects catch and effort data from commercial fishing vessels, including biological sampling by scientific observers.

**Rhincodon typus** - please indicate for this species, for which aspects data are compiled and provide details on research, initiatives, programmes and monitoring activities:

Distributional range

Provide information about research, initiatives, and programmes etc.:

> New Zealand has completed an analysis of the distribution of sightings for *R. typus*.

New Zealand has also recently updated its qualitative risk assessment for all shark species in New Zealand waters, which included updating distributional maps for each species.

## **Objective B:**

### **Ensuring that directed and non-directed fisheries for shark are sustainable**

B1. Are species listed in Annex I caught in your nation's waters (as target or incidental catch) and in what quantity?

Yes

Please select from the list below

- Alopias superciliosus*
- Alopias vulpinus*
- Carcharodon carcharias*
- Cetorhinus maximus*
- Isurus oxyrinchus*
- Lamna nasus*
- Manta birostris*
- Mobula japonica*
- Mobula mobular*

### ***Alopias superciliosus***

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> Over the last 3 years, average catch of *A. superciliosus* has been 0.25 tonnes.

For incidentally caught specimens, please provide details on their fate:

Discard dead

### ***Alopias vulpinus***

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> Over the last 3 years, average annual catch of *A. vulpinus* has been just under 50 tonnes. The majority of the catch (~80%) is discarded, with the remainder landed dressed.

For incidentally caught specimens, please provide details on their fate:

Discard dead

Landed

### ***Carcharodon carcharias***

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> Over the last 3 years, there have been 14 captures of *C. carcharias*, of those, 11 were released alive and 3 returned dead.

For incidentally caught specimens, please provide details on their fate:

Safe release alive

Discard dead

### ***Cetorhinus maximus***

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> In the last 3 years, there have been 6 reported captures of *C. maximus*. Of those, 1 was released alive and 5 were discarded dead.

For incidentally caught specimens, please provide details on their fate:

Safe release alive

Discard dead

### ***Isurus oxyrinchus***

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> *I. oxyrinchus* is managed under New Zealand's quota management system, which requires all catch to be landed except under particular conditions. Over the past 3 years, the average annual catch of *I. oxyrinchus* was around 105 tonnes, of which over 50% was released alive, 15% was landed (mostly dressed), and the remainder discarded dead but accounted for within the catch limit for the species.

For incidentally caught specimens, please provide details on their fate:

- Safe release alive
- Discard dead
- Landed

### **Lamna nasus**

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> *L. nasus* is managed under New Zealand's quota management system which requires all catch to be landed except under certain conditions. Over the last 3 years, the annual average catch was around 95 tonnes, of which around 50% was released alive, around 5% landed, and the remainder discarded dead but accounted for within the catch limit.

For incidentally caught specimens, please provide details on their fate:

- Safe release alive
- Discard dead
- Landed

### **Manta birostris**

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> In the past 3 years, there has been one incidental capture of *M. birostris* which was release alive.

For incidentally caught specimens, please provide details on their fate:

- Safe release alive

### **Mobula japonica**

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> In the last 3 years, 21 *M. japonica*/*M. mobula* have been reported captured in New Zealand fisheries. Of those, 20 were released alive and 1 returned to the sea dead.

For incidentally caught specimens, please provide details on their fate:

- Safe release alive
- Discard dead

### **Mobula mobular**

Please indicate for this species, the amount caught as targeted and/or incidental catch, the unit (e.g. kg, tons) and specification (e.g. dry, dressed, frozen):

Incidental catch

> In the last 3 years, 21 *M. japonica*/*M. mobula* have been reported captured in New Zealand fisheries. Of those, 20 were released alive and 1 returned to the sea dead.

For incidentally caught specimens, please provide details on their fate:

- Safe release alive
- Discard dead

B2. What management measures (please be as specific as possible) are in place for species listed on Annex 1 of the MoU, and when were they implemented?

Management measures are in place

Please provide details

> New Zealand manages mako and porbeagle sharks through the Quota Management System. Under the Quota Management System, sustainable catch limits, based on the best available information, are set for each species. All catch must be reported and accounted for within the catch limit.

B3. Has your country prohibited the taking of species listed in CMS Appendix I?

Yes

Please describe protection measures and reasons for any exceptions made and provide references to policy documents (legislation, management plans etc.).

> Under New Zealand legislation, nine shark species are protected in New Zealand waters, including *Cetorhinus maximus*, *Carcharodon carcharias*, *Manta birostris*, *Mobula japonica*, *Carcharhinus longimanus*, and *Odontaspis ferox*.

The protection prohibits the take of these species, and if incidentally caught during fishing activity, the animal must be returned to the sea and no portion may be retained.

### **Objective D:**

### **Increasing public awareness of threats to sharks and their habitats, and enhance public participation in conservation activities**

D1. Is your government taking steps to improve public knowledge on migratory sharks?

Yes

**III. Please provide any additional information relevant to the Conservation Plan for species listed on Annex 1, or in general, provide any information about what you know about sharks in your waters.**

Please describe:

> New Zealand manages sharks through the National Plan of Action for the Conservation and Management of Sharks (NPOA-Sharks) which sets out six goals to achieve the purpose of the NPOA-Sharks which 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'. The goals of the NPOA-Sharks and subsidiary 5-year objectives are consistent with the objectives in the Sharks MOU Conservation Plan.

