Fisheries New Zealand
Tini a Tangaroa

Report to the Ecologically Related Species Working Group

New Zealand

Prepared for the 14th Meeting of the Ecologically Related Species Working Group (ERSWG14) of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT)

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New Zealand Government

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Contents

1 Introduction

1.1 GENERAL COMMENTS ON FISHING METHODS BY WHICH SOUTHERN BLUEFIN TUNA IS CAUGHT IN PARTY FISHERIES (BY FLEET, AREA, AND TIME)

Since the start of New Zealand's southern bluefin tuna (SBT) fishery, handline, trolling, and surface longlines have been used to target SBT in the New Zealand Exclusive Economic Zone (EEZ). All but a few tonnes of the SBT catch is now taken in the surface longline fishery.

Historically, the SBT surface longline fishery has primarily occurred off the west coast of the South Island, and the east coast of the North Island of New Zealand. However, recent years have shown an increase in targeting of SBT off the east coast of the South Island as well.

The main fishing season for SBT generally begins in April/May and finishes in August/September. Small amounts of SBT are also caught as bycatch outside of the main fishing period. Notably in the most recent fishing season SBT were regularly caught in December/January, and in areas where they were not typically caught previously (i.e. the west coast of the North Island).

1.2 GENERAL COMMENTS ON TYPE AND MAGNITUDE OF ECOLOGICALLY RELATED SPECIES (ERS) CAUGHT BY FISHERY/METHOD.

Protected species, such as seabirds, fur seals, and turtles, are caught as bycatch in the New Zealand SBT surface longline fishery. Seabirds are generally the most common protected species bycatch, although some years have seen high captures rates of mammals, particularly fur seals, as well. No exceptional mortality events were observed in 2019 and 2020 and totals for those years were low compared to previous years.

Non-target fish species, such as blue sharks, mako sharks, ray's bream, and albacore, are also caught as bycatch in the New Zealand SBT surface longline fishery. Blue sharks are the most common non-target fish bycatch, and usually result in live release. During 2019 and 2020, observed blue shark captures declined compared to previous years.

2 Review of SBT fisheries

SBT catch has steadily increased since the early 1990s, with 2018 reaching a record high of 1008.0 tonnes, dropping to 959.4 tonnes in 2019, and to 853.0 tonnes in 2020 (**Table 1, Table 2,** and **Table 3**).

Total effort has also steadily increased, peaking around 2003 before declining back to similar levels as the 1990s (**Table 4** and **Table 5**). Fishing effort reduced in 2020, likely as a result of the COVID-19 pandemic.

2.1 FLEET SIZE AND DISTRIBUTION (BRIEF SUMMARY OF TRENDS)

The number of vessels catching SBT in New Zealand fisheries waters by calendar year and by fishing year is provided in **Table 6**.

2.1.1 Trends by season

Up until 1991, foreign charter vessels dominated the New Zealand SBT fishery. In 1991, the first domestic longline vessel began fishing for SBT, and then throughout the 1990s and early 2000s the domestic fleet expanded. Since around the time that SBT was introduced into the quota management system in 2004, the number of vessels operating in the New Zealand fishery has been declining, with 28 vessels operating in the fishery during the 2019/20 fishing year

2.1.2 Trends by area

The SBT surface longline fishery primarily occurs off the east coast of the North Island, north of 40º South, in CCSBT statistical area 5 (area 5), and off the west coast of the South Island, south of 40º South, in CCSBT statistical area 6 (area 6).

Historically, the charter fleet, which was primarily composed of the larger -60° freezer vessels, dominated the west coast South Island fishery. The charter vessels left the fishery in 2016 after there were changes in legislation (**Figure 1** and **Figure 2**).

The domestic fleet is primarily composed of smaller vessels which operate mainly in the longline fishery off the east coast of the North Island. However, in recent years domestic vessels have increased effort off the west and east coasts of the South Island replacing some of the effort previously made by the foreign charter fleet (**Figure 3** and **Figure 4**). The domestic vessels are usually at sea for a few days, and land SBT both as a target and as a bycatch of bigeye and swordfish target sets, as well as albacore trolls.

2.2 DISTRIBUTION OF CATCH AND EFFORT (SUMMARY OF CATCH AND EFFORT BY AREA AND FLEET)

Maps of historical catch and effort by the SBT fishery are provided in **Figure 1** and **Figure 2** for the charter fleet, and **Figure 3** and **Figure 4** for the domestic fleet.

2.2.1 Summary by area

For the charter fleet, catch and effort predominantly occurred in area 6, with under 10 percent of total charter catch and effort occurring in area 5 (**Table 2**, **Table 4**, **Figure 1**, and **Figure 2**).

For the domestic fleet, effort increased dramatically in both areas from 1994 to 2003, which was followed by a decline to a low level in 2007 and 2008, particularly in area 6 (**Table 5** and **Figure 3**). This decline is associated with a substantial decrease in the number of vessels in the surface longline fleet (**Table 6**), and the removal from the fleet of a domestically-owned freezer vessel that fished in area 6. Since 2008, domestic vessels have increased effort in area 6. This increased effort has been reflected in increased catch in area 6, which reached 545 tonnes in 2019, surpassing catch in area 5 (414.7 tonnes). However, catch in area 6 declined to 361.1 tonnes in 2020 while remaining relatively steady in area 5 at 491.9 tonnes (**Table 3** and **Figure 4**).

2.2.2 Summary by fleet

For the foreign charter fleet, catch fluctuated around 200 tonnes since the early 1990s (**Table 2**). Effort gradually declined from the early 1990s to 2016, when, due to changes in legislation, the vessels left the fishery (**Table 4**).

For the domestic fleet, catch remained below 600 tonnes up until 2012 when it began increasing, peaking in 2018 at 1008.0 tonnes (**Table 3**).

Total effort in the fishery was around 25 percent less than levels seen prior to the exit of the foreign charter fleet. A longline fishery targeting other highly migratory species also operates outside the SBT fishing season, and this data has been included as “Other” (**Table 5**).

3 Fisheries monitoring for each fleet

3.1 SUMMARY OF RECENT OBSERVER COVERAGE OF SBT FISHERIES FLEETS

Observer coverage of the SBT surface longline fishery is provided by area in Error! Reference source not found., **Table 9**, **Table 10**, and **Table 11**.

In 2019, approximately 15 percent of the domestic catch and 10 percent of the domestic effort was observed, and in 2020, 14 percent of the domestic catch and 10 percent of the domestic effort was observed (Error! Reference source not found. and **Table 10**).

3.2 SUMMARY OF DATA COLLECTION ACTIVITIES OF OBSERVERS

3.2.1 Biological information

Observers from the scientific Observer Programme are responsible for collecting biological data on SBT and bycatch for catch characterisation.

Length, weight (both processed and whole weights), and sex are recorded regularly for SBT and all major fish bycatch species. It is often not feasible for observers to collect otoliths on the domestic vessels due to the smaller vessel size and the different processing practices. However, otoliths have been collected from recreational SBT fishers in recent years.

Full biological information is recorded for non-fish species (e.g. seabirds, turtles, marine mammals).

3.2.2 Fish bycatch estimates

Data from the Observer Programme is used to quantify the extent of fish bycatch caught in the SBT surface longline fishery. The data provides information on which species appeared as bycatch, the catch per unit effort (CPUE) of the most common species, and estimates of total catch.

3.2.3 CCSBT dart tags

During the 2018 calendar year, one dart tag was recovered during observed trips. The tag was recovered from a fish caught in area 5, which had a fork length of 112 centimetres. One tag was recovered in 2019 on the West Coast of the South Island, and one tag was recaptured by an Observer in 2020 in area 5, which had a fork length of 167 centimetres.

3.3 SUMMARY OF DATA COLLECTION ACTIVITIES FROM NON-OBSERVED ACTIVITIES

3.3.1 Southern bluefin tuna

From 1 October 2004, when SBT was introduced into the quota management system, the catch monitoring and catch balancing systems in place for all other New Zealand quota species were applied to SBT. All fishers are required to furnish monthly returns of catch (in addition to furnishing log books). Electronic submission of logbook information became compulsory for all vessels in 2019.

3.3.2 Fish bycatch - quota species

Most fish species associated with the SBT fishery within the New Zealand EEZ were introduced into the quota management system on 1 October 2004. All fishers are required to furnish monthly returns of catch for these associated species (in addition to furnishing log books).

The total allowable catch (TAC) of fish bycatch species associated with New Zealand's SBT longline fishery is presented in **Table 7.**

3.3.3 Fish bycatch - non-quota species

Some species caught as bycatch in the SBT fishery are not managed under the quota management system, for example albacore tuna and striped marlin. However, fishers are required to report the catch of all species, including any non-quota management system species, when furnishing their monthly returns. As a result, the commercial reporting requirements provide information on total catch and effort of fish bycatch in the SBT fishery. For additional information on quota and non-quota fish species bycatch, see section 5.

3.3.4 Non-fish and protected species bycatch reporting

Events of non-fish bycatch and protected species bycatch are reported by fishers on separate Non-fish and Protected Species Returns. This applies to both observed and unobserved trips.

3.3.5 Electronic monitoring and reporting

Beginning in 2019, electronic reporting and geospatial position reporting became compulsory for all commercial fishing vessels in New Zealand's surface longline fleet. Additionally, cameras on boats are currently being phased in across the fleet, with 300 New Zealand flagged vessels to be fitted with cameras by 2024.

In 2020, improvements to electronic reporting were consulted on and came into effect at the end of 2021. These improvements included additional reporting for the surface longline fleet on seabird mitigation measures and line weighting regimes.

4 Seabirds

The majority of seabirds are protected in New Zealand under legislation.

4.1 SUMMARY OF CPUE AND TOTAL NUMBERS OF SEABIRDS INCIDENTALLY CAUGHT BY AREA AND FLEET AND LIST OF NUMBERS OF EACH SEABIRD SPECIES CAUGHT REPORTED FROM OBSERVERS

Seabird captures by area during 2018, 2019, and 2020 are provided in **Table 12** to **Table 15.**

In area 5, observed seabird captures remained at a similar level during 2019 and 2020, compared to 2018.

In area 6, observed seabird captures decreased substantially in 2019 and 2020, compared with previous years. Observer coverage also fell considerably in 2019 and 2020 due to the COVID-19 pandemic, so this could partly explain the significant decrease in observed captures in area 6.

4.2 SUMMARY OF SEABIRD CAPTURES FROM SOURCES OTHER THAN OBSERVERS.

Seabird captures are reported via commercial reporting, and fishers are also encouraged to report certain captures to Liaison Officers of the Protected Species Liaison Officer Programme.

Commercially reported seabird captures are provided in **Table 12.**

5 Other non-target fish

5.1 SUMMARY OF CPUE AND TOTAL NUMBERS OF SHARK AND THE PREDOMINANT NON-TARGET FISH SPECIES BY AREA AND FLEET REPORTED FROM OBSERVERS

Non-target fish captures by area during 2019 and 2020 are provided in **Table 16** to **Table 19.**

Blue shark are the most commonly caught shark and non-target fish species. The number of observed blue shark captures in area 5 declined significantly in 2019 and 2020. Blue shark captures in area 6 increased slightly in 2019, before declining considerably in 2020.

5.2 SUMMARY OF NON-TARGET FISH CAPTURES FROM SOURCES OTHER THAN OBSERVERS

Non-target fish captures are also reported via commercial reporting and are provided in **Table 26.**

6 Marine mammal and marine reptile

The majority of marine mammals are protected in New Zealand under legislation.

6.1 SUMMARY OF TOTAL NUMBERS OF MARINE MAMMAL AND MARINE REPTILE INCIDENTALLY CAUGHT REPORTED FROM OBSERVERS

Marine mammal and marine reptile captures by area during 2019 and 2020 are provided in Error! Reference source not found. to **Table 24.**

Observed turtle captures have remained at a low level (of one capture, discarded dead) in area 5 in 2020. There were no observed turtle captures in area 6, and none in area 5 in 2019.

The most common marine mammal captured in SBT fisheries is the New Zealand fur seal. Observed captures of fur seals remained stable in area 5 in 2019 and 2020. However, observed captures in area 6 declined significantly between 2019 and 2020.

6.2 SUMMARY OF MARINE MAMMAL AND MARINE REPTILE CAPTURES FROM SOURCES OTHER THAN OBSERVERS.

Marine mammal and marine reptile captures are also reported via commercial reporting, and to Liaison Officers of the Protected Species Liaison Officer Programme.

Commercially reported captures are provided in and **Table 27** and **Table 28.**

7 Mitigation measures to minimise seabird and other species bycatch

7.1 CURRENT MEASURES

7.1.1 Mandatory measures for each fleet

Mandatory measures for the surface longline fleet are specified in the Fisheries (Seabird Mitigation Measures – Surface Longline) Circular 2019. Commercial surface longline fishers are required to use two of three prescribed mitigation measures when setting surface longline fishing gear:

1. Use hook-shielding devices on 100% of hooks, *or*
2. Use a tori line, *and* e*ither:*
    a. Use line weighting, *or*
    b. Set lines at night

These requirements are based on early advice from the Agreement for the Conservation of Albatrosses and Petrels (ACAP), which were incorporated into WCPFC's conservation and management measure for mitigating the impacts of fishing on seabirds. This conservation and management measure has gone through a number of iterations over the years.

The current conservation and management measure was revised at the Commission meeting in December 2018 (CMM 2018-03). The change relevant to New Zealand was the inclusion of hook shielding devices as an optional standalone seabird mitigation measure (as an alternative to using two of the three prescribed mitigation measures) and to require the use of at least one form of mitigation on the high seas between 30°S and 25°S.

Similar provisions are outlined in high seas permit conditions for any New Zealand vessels fishing on the high seas.

Compliance with these regulations is monitored by at-sea and in-port inspections via Fisheries Officers and Observers placed on vessels. The Observer coverage target is 10% effort and catch, as per CCSBT requirements.

During the 2019 and 2020 calendar years, inspections of vessels in port found various incidents where breaches of seabird mitigation regulations had occurred. The majority of these breaches were in relation to tori lines not meeting specifications as per domestic law. A graduated enforcement was applied to this noncompliance, ranging from commercial advice and aiding fishers to bring seabird mitigation up to specification, through to conviction of one vessel for failure to deploy seabird mitigation.

7.1.2 Voluntary Measures for Each Fleet

Since 2015, the Protected Species Liaison Officer Programme ('the Programme') has been working with the surface longline fleet to mitigate incidental capture of seabirds. A key output of the Programme has been to assist in the development of risk management plans specific to the individual vessel operations. The Programme also encourages fishers to seek advice from liaison officers when a certain number of captures of certain species occur.

The risk management plans include mandatory and voluntary seabird mitigation measures. Voluntary measures include:

- Reporting seabird bycatch events to liaison officers
- Using hook shielding devices, or all three prescribed measures (rather than just two)

- Aiming to increase sink rate of baited hooks during setting (for example, by reducing setting speed)
- No discharging of fish waste immediately before or during setting
- Either holding or batch discharging fish waste during hauling
- Retaining all used bait on board until hauling has finished
- Using thawed bait (rather than frozen bait)
- Keeping gear and deck clean of any remaining fish waste to reduce attracting seabirds
- Reducing deck lighting, especially while sheltering or at anchor

The Protected Species Liaison Programme has deployed turtle dehooking kits to the fleet and checks in with vessels before the summer season to make sure they are accessible in the case of a turtle capture event. Kits include de-hookers of three sizes (small, medium, and large), a long-handled line-cutter and spare blades, bolt cutters, and scissors. The medium-sized de-hooker has a bite-blocker fitted. Some vessels already carry bolt-cutters and dip-nets.

Liaison officers continue to supply tori line materials to the fleet and offer advice for keeping tori lines in good condition and fit-for-purpose.

Additionally, the Programme has facilitated the implementation of hook-shielding devices in the fleet in recent years. Feedback from fishers led to a supply of 10m-release hook-shielding devices (as opposed to 20m-release) being ordered to improve uptake. Deployment is due to commence in the 2021/22 fishing year.

7.2 MEASURES UNDER DEVELOPMENT/TESTING

Vessels are encouraged to test mitigation techniques and devices they consider may be effective.

Underwater Bait setter

An underwater bait setter is a device that deploys baited hooks at a certain depth, intended to be out of diving range of seabirds.

Industry undertook a project to trial an underwater bait setter in the surface longline fishery during 2019 and 2020. The purpose of the trial was to determine the operational functionality of the device during fishing, as well as to assess the extent to which the device can be used without other mitigation measures in the surface longline fishery.

The first stage of the trial was successfully completed in 2019, however, the second stage of the trial, which was designed to test the bait setter in harsher conditions, was delayed due to the COVID-19 pandemic.

8 Public relations and education activities

8.1 PUBLIC RELATIONS ACTIVITIES

In addition to government activities, the organisation Southern Seabird Solutions (www.southernseabirds.org), formed in 2002, continued its work in education and awareness of seabird conservation. The organisation's priority projects at present include:

- Helping accelerate uptake of mitigation methods by high seas vessels that overlap with Antipodean albatrosses, by partnering with organisations with existing reach into these fleets and supply chains

- Supporting trials of an underwater baitsetter, and a newly designed heavy hook, to help tuna fishers avoid catching seabirds.

- Working with government and communities to raise awareness of the importance of black petrel breeding grounds on Aotea/Great Barrier Island.

- Presenting the Seabird Smart Awards every second year that celebrate individuals who are voted by their peers and a judging panel as making significant effort and leadership towards seabird smart fishing.

8.2 EDUCATION

The Department of Conservation's Protected Species Liaison Officer Programme began engaging with the surface longline fleet in 2016. As part of the Programme all surface longline vessels have received advice and assistance on implementing effective seabird mitigation (such as how to improve tori lines),

The Programme helped vessel operators develop protected species risk management plans specific to their operations. The plans are accompanied by '10 Golden Rules for Surface Longliners to Save Seabirds', operational procedures, and a number of other informational documents (such as safe handling and release of turtles). The Programme also encourages fishers to seek advice from liaison officers when a certain number of captures of certain species occur.

The primary means of engagement by Fisheries New Zealand with surface longline fishers is through semi-annual workshops, where mitigation of captures of seabirds and other ERS are routinely discussed.

8.3 INFORMATION EXCHANGE

New Zealand participated in the Common Oceans project to assess seabird bycatch in surface longline fisheries south of 20 degrees South. This project, with meetings in Peru in February 2018, and South Africa in February 2019, was led by Birdlife. Delegates collaborated on applying the risk assessment method to estimating seabird bycatch at the species level, using observer data from CCSBT member countries including Japan, New Zealand, Korea, Australia, and South Africa.

The risk assessment method has been made openly available online.[1] As a result of collaboration on this project, there have been visits between New Zealand and Japan, to help reach a better understanding of the bycatch data, and to share analysis methods.

Since the completion of the first Common Oceans project, New Zealand has been involved in discussions for a new project which is a collaboration between CCSBT Members and BirdLife International. The Common Oceans 2 project has four key activities; educational outreach, capacity building of observers and compliance officers, technological innovation to improve monitoring, and updating the global seabird bycatch risk assessment. The project is due to commence in mid-2022 and run for 5 years. New Zealand is part of the Intersessional Seabird Working Group (SBWG) and have made comments on the project proposals in the last couple years. Although New Zealand won't be directly involved in all the project

[1] The risk assessment can be found at the following link: https://github.com/seabird-risk-assessment

activities, it has offered to assist other Members by sharing information and experiences from its own fisheries.

New Zealand regularly submits various discussion, background, and information documents to regional fisheries management organisations and international organisations on topics related to ecologically related species.[2]

Fisheries New Zealand and the Department of Conservation also provide research and information through their respective websites.[3]

9 Information on other ERS (non-bycatch), such as prey and predator species

New Zealand has no information to report on other ERS (non-bycatch).

10 Others

New Zealand is providing other information on ERS-related fishing activities through various projects, including a two-part hotspot analysis using antipodean albatross as a test case, a southern hemisphere seabird risk assessment, and an informational paper on an antipodean albatross multi-threat risk assessment, all presented under agenda item 5.1.3. Additionally, a paper on factors affecting captures in the New Zealand domestic surface longline fishery will be presented under agenda item 5.1.4.

Historically, New Zealand has inspected vessels on the high seas, and part of those inspections relates to determining the presence of seabird mitigation equipment. However, due to the COVID-19 pandemic high seas inspections have not occurred in recent years.

11 Implementation of the IPOA-Seabirds and IPOA-Sharks

As a member of the United Nations Food and Agriculture Organisation, New Zealand is supportive of the International Plans of Action developed by the United Nations Food and Agriculture Organisation. In line with the International Plans of Action, New Zealand has developed National Plans of Action for seabirds and sharks.

New Zealand implemented the first National Plan of Action to reduce the incidental catch of seabirds in New Zealand fisheries in 2004. This plan was revised in 2013, and again in 2020. Copies of this plan can be obtained from the Fisheries New Zealand website[4].

New Zealand implemented the first National Plan of Action for the conservation and management of sharks in 2008. This plan was revised in 2013, and is currently under review again. Copies of this plan can be obtained from the Fisheries New Zealand website[5].

11.1 ACTIVITES UNDERTAKEN FOR THE IMPLEMENTATION OF NPOAS IN RELATION TO SBT FISHERIES

Fisheries New Zealand identifies activities to implement the national plans of actions for seabirds and sharks in relation to the southern bluefin tuna fishery in annual and long-term

[2] New Zealand documents submitted to WCPFC and ACAP can be found on the organisations' websites.
[3] Fisheries New Zealand fisheries research can be found here: https://www.mpi.govt.nz/news-and-resources/science-and-research/fisheries-research/ Department of Conservation research can be found here: https://www.doc.govt.nz/our-work/conservation-services-programme/
[4] The latest iteration of New Zealand's NPOA Seabirds can be found here: https://www.mpi.govt.nz/dmsdocument/40652-National-Plan-Of-Action-Seabirds-2020-Report
[5] The latest iteration of New Zealand's NPOA Sharks can be found here: https://www.mpi.govt.nz/dmsdocument/1138-National-Plan-of-Action-for-the-Conservation-and-Management-of-Sharks-2013

plans for highly migratory species fisheries. The activities are then reported in an annual review report[6].

National Plan of Action to reduce the incidental catch of seabirds in New Zealand fisheries 2020

The National Plan of Action to Reduce the Incidental Catch of Seabirds in New Zealand Fisheries 2020 (National Plan of Action for Seabirds 2020) sets out a vision that:

> *New Zealanders work towards zero fishing-related seabird mortalities*

The vision of the NPOA Seabirds 2020 sets out the desired future state for the management of the impacts of fishing on seabirds. Underlying this, goals have been developed for a range of key focus areas. Five-year objectives are aligned to each of the goals, which are intended to be achieved within the lifespan of this plan, but it is acknowledged that some may flow through to subsequent versions.

In support of these objectives, a range of research has been carried out to improve information and seabird mitigation in the surface longline fleet. Demographic seabird research and seabird tracking studies have been undertaken on a range of high, and very-high risk seabirds (such as for Antipodean albatross), whilst new seabird mitigation measures have been trialled (such as hook shielding devices).

Extensive biological and population monitoring research has been completed under the Department of Conservation's Conservation Services Programme and Fisheries New Zealand Protected Species Programme. Prioritisation of this research has been driven by outputs from the risk assessment which identify variables, such as demographic information, for which uncertain parameter inputs have significant effects on risk estimation for species of interest.

Internationally, most of the focus has been on strengthening seabird conservation measures within regional fisheries management organisations, such as the CCSBT and the WCPFC.

At the WCPFC meeting in December 2018, New Zealand put forward a proposal to include hook-shielding devices as an optional standalone seabird mitigation measure, and to require the use of at least one form of mitigation on the high seas between 30 degrees South and 25 degrees South. The proposed changes were agreed. New Zealand incorporated the changes into domestic legislation in 2019.

Fisheries New Zealand also leads and contributes to the Seabird Advisory Group (SAG), a multi-stakeholder working group designed to advance seabird initiatives across sectors. The SAG helped review the National Plan of Action for Seabirds in 2019, which contributed to an updated iteration of the report, along with supporting documents, being published in 2020. Regular meetings have been held by the SAG to continue to progress the initiatives of the report.

National Plan of Action for the conservation and management of sharks 2013

New Zealand's National Plan of Action for the conservation and management of sharks 2013 (National Plan of Action for Sharks 2013) sets out the long-term objective:

> *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.*

[6] The Highly Migratory Species Annual Review Report can be found here: https://www.mpi.govt.nz/fishing-aquaculture/fisheries-management/highly-migratory-species/

Fisheries New Zealand identifies management activities in relation to sharks in HMS fisheries that are aligned with the goals of the National Plan of Action for Sharks in the following key areas:

- Biodiversity and long-term viability
- Utilisation, waste reduction, and elimination of shark finning
- Domestic engagement and partnership
- Non-fishing threats
- International engagement
- Research and information

Management of the blue, porbeagle and mako shark throughout the western and central Pacific Ocean is the responsibility of WCPFC. Under this regional convention, New Zealand is responsible for ensuring that the management measures applied within New Zealand fisheries waters are compatible with those of the Commission.

Shark finning was made illegal for commercial fishers in New Zealand from 1 October 2014. Under the ban, fishers are still able to land shark fins, however conditions apply depending on the species concerned.

Blue, porbeagle and mako shark were introduced into the quota management system on 1 October 2004. From 1 October 2014, fishers have been allowed to return blue, porbeagle and mako shark to the sea both alive and dead, although the status must be reported accurately. Those returned to the sea dead are counted against a fisher's annual catch entitlement and the total allowable catch limit for that species.

New Zealand cooperates with other countries to manage migratory shark species via regional fisheries management organisations, including WCPFC and CCSBT, and treaties, including the Convention on the Conservation of Migratory Species of Wild Animals.

New Zealand is a signatory to the subsidiary agreement to the Convention on the Conservation of Migratory Species of Wild Animals that is focused on migratory sharks. New Zealand became a Signatory to the Memorandum of Understanding on the Conservation of Migratory Sharks in 2015.

Fisheries New Zealand is currently reviewing the National Plan of Action for Sharks 2013, including engaging with stakeholders, and will be publishing an updated iteration of the report in 2022.

12 Appendix – Tables

Table 1: Commercial catches of SBT in New Zealand fisheries waters (tonnes, whole weight) by calendar year and New Zealand fishing year (1 October to 30 September).

Year	Calendar year catches	Fishing year catches
1980	130.0	130.0
1981	173.0	173.0
1982	305.0	305.0
1983	132.0	132.0
1984	93.0	93.0
1985	94.0	94.0
1986	82.0	82.0
1987	59.0	59.0
1988	94.0	94.0
1989	437.2	437.1
1990	529.2	529.3
1991	164.5	164.5
1992	279.2	279.2
1993	216.6	216.3
1994	277.0	277.2
1995	436.4	434.7
1996	139.3	140.4
1997	333.7	333.4
1998	337.1	333.0
1999	460.6	457.5
2000	380.3	381.7
2001	358.5	359.2
2002	450.3	453.6
2003	389.6	391.7
2004	393.3	394.0
2005	264.4	264.0
2006	238.2	238.2
2007	382.6	383.1
2008	319.0	318.8
2009	418.5	417.3
2010	500.8	500.0
2011	547.1	547.2
2012	775.5	775.4
2013	756.4	758.2
2014	825.6	825.8
2015	922.3	922.2
2016	950.8	949.6
2017	913.3	913.5
2018	1008.0	1008.1
2019	959.4	956.9
2020	853.0	856.6

Table 2: Catch (tonnes) for the charter fleet by year and CCSBT statistical area. Based on raised catches. (No charter vessels fished in 1996 nor since 2015)

Calendar Year	Area 5	Area 6	Other*
1989		296.3	0.3
1990	66.7	174.9	
1991	23.0	102.6	
1992	4.8	214.5	0.5
1993	20.2	120.5	9.5
1994		234.1	
1995	1.6	228.7	0.2
1996			
1997	52.3	186.2	
1998	83.9	117.3	
1999	9.8	190.7	
2000	2.5	132.5	
2001		139.3	
2002		148.4	
2003		82.1	
2004		126.4	
2005	34.4	53.0	
2006	9.9	95.3	
2007	53.0	161.0	
2008		200.0	
2009	17.0	201.2	
2010		207.8	
2011		199.1	
2012		240.1	0.1
2013		183.9	
2014		223.9	
2015		256.8	

*Most often erroneous position data

Table 3: Catch (tonnes) for the domestic fleet by year and CCSBT statistical area based on raised catches.

Calendar Year	Area 5	Area 6	Other*
1980			130.0
1981			173.0
1982			305.0
1983			132.0
1984			93.0
1985			94.0
1986			82.0
1987			59.0
1988			94.0
1989	0.1	140.5	
1990	6.9	278.7	2.0
1991	0.9	37.8	0.1
1992	6.2	53.2	
1993	49.4	16.3	0.8
1994	6.5	35.6	0.8
1995	15.0	184.9	6.1
1996	34.2	103.8	1.3
1997	57.9	36.2	1.1
1998	83.4	52.2	0.4
1999	194.7	64.8	0.6
2000	184.0	60.9	0.4
2001	113.1	105.7	0.4
2002	135.7	162.9	3.2
2003	216.7	89.7	0.1
2004	101.0	165.9	
2005	165.2	11.6	0.3
2006	122.8	10.2	
2007	162.5	2.1	
2008	80.5	38.1	
2009	133.5	66.7	0.2
2010	204.8	88.2	
2011	237.2	110.8	
2012	249.1	285.8	
2013	344.1	227.2	
2014	334.0	267.6	
2015	406.1	259.3	0.1
2016	563.5	386.3	1.1
2017	483.2	428.6	1.1
2018	652.5	355.2	0.3
2019	414.7	544.7	
2020	491.9	361.1	

* Includes erroneous position data and data without positions. Since the introduction of electronic reporting and geospatial position reporting in 2019, issues with erroneous data have been resolved.

Table 4: Effort (1,000s of hooks) for the charter fleet by year and CCSBT statistical area region based on raised hooks. Note that this includes some non-SBT target effort in area 5. (No charter vessels fished in 1996 nor since 2015.)

Calendar Year	Area 5	Area 6	Other*
1989		1596	3.5
1990	259	1490.6	
1991	306	1056.5	
1992	47.6	1386.8	3
1993	174.1	1125.7	101.4
1994		799.1	
1995	27.1	1198.7	13.5
1996			
1997	135.2	1098.7	
1998	225	616	
1999	57.2	955.1	
2000	30.3	757.9	
2001		639.4	
2002		726.4	
2003	3	866.6	
2004		1113.5	
2005	137	498.9	
2006	39.4	562.5	
2007	271.6	1136.1	
2008		568.3	
2009	66.8	731.0	
2010		484.9	
2011		495.9	
2012		548.4	3.4
2013	13.2	450.8	
2014		655.8	
2015		625.9	

*Most often erroneous position data

Table 5: Effort (1,000s hooks that caught or targeted SBT) for the domestic fleet by year and CCSBT statistical area based on raised hooks.

Calendar Year	Area 5	Area 6	Other*
1989			
1990	41.7		
1991	31.5	49.2	
1992	71.7	12.1	
1993	644.0	108.1	7.7
1994	122.6	143.3	5.8
1995	221.5	760.4	26.7
1996	417.9	564.3	11.5
1997	736.4	8.9	17.3
1998	633.6	314.5	1.2
1999	1221.4	382.9	5.5
2000	1164.0	454.4	8.5
2001	1027.6	751.5	1.9
2002	1358.6	1246.8	13.5
2003	1868.7	1569.1	4.3
2004	1154.1	1431.9	1.2
2005	1133.0	153.6	2.4
2006	1036.4	122.4	0.9
2007	681.2	19.0	
2008	527.8	94.0	
2009	733.9	165.4	1.3
2010	1116.7	294.3	
2011	955.7	197.8	
2012	858.9	629.3	
2013	905.3	565.0	1.2
2014	595.0	540.2	
2015	716.0	524.1	0.7
2016	883.8	565.9	12.6
2017	866.1	590.2	7.9
2018	1203.9	485.0	3.7
2019	1356.5	1499.9	
2020	779.4	705.1	

* Includes erroneous position data and data without positions. Since the introduction of electronic reporting and geospatial position reporting in 2019, issues with erroneous data have been resolved.

Table 6: Number of vessels catching SBT in New Zealand fisheries waters by calendar year and New Zealand fishing year (1 October to 30 September).

Year	Calendar year vessel numbers	Fishing year vessel numbers
2001	132	132
2002	151	155
2003	132	132
2004	99	101
2005	57	58
2006	56	57
2007	44	45
2008	35	36
2009	40	39
2010	44	42
2011	42	42
2012	43	44
2013	39	39
2014	37	38
2015	34	33
2016	32	32
2017	32	32
2018	34	34
2019	28	30
2020	28	28

Table 7: TACs of the main fish bycatch species associated with the SBT surface longline fishery within the New Zealand EEZ as of 1 October 2020**.**

Fish species	TAC (tonnes)
Bigeye Tuna	740
Yellowfin Tuna	358
Pacific Bluefin Tuna	145
Swordfish	919
Moonfish	527
Blue Shark	2,080
Mako Shark	276
Porbeagle Shark	129
Ray's Bream	1,045

Table 8: Observer coverage in terms of catch (proportion of individual SBT observed) for the domestic surface longline fleet for 2018, 2019 and 2020 calendar years.

Country/ Fishing Entity	Calendar Year	Fishery		CCSBT statistical area	Total SBT catch numbers	Observed SBT catch numbers	Observer coverage (%)
		Gear Code	Fleet Code				
NZ	2018	SLL	NZD	5	11,739	2,631	22%
				6	7,528	923	12%
NZ	2019	SLL	NZD	5	4,206	546	13%
				6	6,073	1,209	20%
NZ	2020	SLL	NZD	5	9,177	1,250	14%
				6	8,091	1,161	14%

Table 9: Observer coverage in terms of estimated catch (proportion of total estimated weight) for the domestic surface longline fleet for 2018, 2019 and 2020 calendar years.

Country/ Fishing Entity	Calendar Year	Fishery		CCSBT statistical area	Total SBT Catch (kg)	Observed SBT Catch (kg)	Observer coverage (%)
		Gear Code	Fleet Code				
NZ	2018	SLL	NZD	5	490,088	118,752	24%
				6	284,168	32,362	11%
NZ	2019	SLL	NZD	5	199,109	29,789	15%
				6	240,157	58,510	24%
NZ	2020	SLL	NZD	5	432,204	63,932	15%
				6	317,191	54,517	17%

Table 10: Observer coverage in terms of effort (proportion of hooks observed) for the domestic fleet for 2018, 2019 and 2020 calendar years.

Country/ Fishing Entity	Calendar year	Fishery		CCSBT statistical area	Total Effort (no. of hooks)	Observed Effort (no. of hooks)	Observer coverage (%)
		Gear code	Fleet code				
NZ	2018	SLL	NZD	5	911,181	157,568	17%
				6	446,185	76,580	17%
NZ	2019	SLL	NZD	5	772,489	55,020	7%
				6	727,470	82,928	11%
NZ	2020	SLL	NZD	5	787,667	67,591	9%
				6	712,744	69,828	10%

Table 11: Observer coverage in terms of days for the domestic fleet for 2018, 2019 and 2020 calendar year

Country/ Fishing Entity	Calendar Year	Fishery		CCSBT statistical area	Total Effort (vessel days)	Observed Effort (vessel days)	Observer coverage (%)
		Gear Code	Fleet Code				
NZ	2018	SLL	NZD	5	1041	162	16%
				6	446	83	19%
NZ	2019	SLL	NZD	5	875	77	9%
				6	757	88	12%
NZ	2020	SLL	NZD	5	896	89	10%
				6	755	64	8%

Table 12: Reporting of observed captures of seabirds in CCSBT fisheries in 2019

Country: New Zealand Year (calendar year) 2019 Area: 5

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
White-chinned petrel	772,489	55,020	7	1	1	0	0	65.5	6.5	-	26.2	0.9	0.9	-
TOTAL	772,489	55,020	7	1	1	0	0	65.5	6.5	-	26.2	0.9	0.9	-

To note (and also applicable to following tables):

- The footnotes apply to all the similar tables that follow.
- Where fate does not equate to captures, the fate is unknown.

Table 13: Reporting of observed captures of seabirds in CCSBT fisheries in 2019

Country: New Zealand Year (calendar year) 2019 Area: 6

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
Great albatrosses	727,470	82,928	11	1	0	0	1	-	0.4	0.7	98.9	-	-	-
White-chinned petrel	727,470	82,928	11	5	2	1	2	-	0.4	0.7	98.9	-	-	-
Buller's albatross	727,470	82,928	11	15	13	0	2	-	0.4	0.7	98.9	-	-	-
Flesh-footed shearwater	727,470	82,928	11	1	0	1	0	-	0.4	0.7	98.9	-	-	-
Buller's albatross and Pacific albatross	727,470	82,928	11	2	1	0	1	-	0.4	0.7	98.9	-	-	-
White-capped albatross	727,470	82,928	11	21	19	0	2	-	0.4	0.7	98.9	-	-	-
Westland petrel	727,470	82,928	11	8	5	1	2	-	0.4	0.7	98.9	-	-	-
TOTAL	727,470	82,928	11	53	40	3	10	-	0.4	0.7	98.9	-	-	-

Table 14: Reporting of observed captures of seabirds in CCSBT fisheries in 2020

Country: New Zealand Year (calendar year) 2020 Area: 5

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
Buller's albatross and Pacific albatross	787,667	67,591	9	1	0	0	1	74.2	-	9.2	16.6	-	-	-
TOTAL	787,667	67,591	9	1	0	0	1	74.2	-	9.2	16.6	-	-	-

Table 15: Reporting of observed captures of seabirds in CCSBT fisheries in 2020

Country: New Zealand Year (calendar year) 2020 Area: 6

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
White-chinned petrel	712,744	69,828	10	1	0	0	1	-	0.4	0.7	98.9	-	-	-
White-capped albatross	712,744	69,828	10	1	1	0	0	-	0.4	0.7	98.9	-	-	-
Westland petrel	712,744	69,828	10	2	2	0	0	-	0.4	0.7	98.9	-	-	-
TOTAL	712,744	69,828	10	4	3	0	1	-	0.4	0.7	98.9	-	-	-

Table 16: Reporting of observed captures of non-target fish in CCSBT fisheries in 2019

Country: New Zealand Year (calendar year) 2019 Area: 5

	Total & Observed Effort			Observed Captures					Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)				TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)	Other							
Blue shark	772,489	55,020	7	2,099	6	368	1,677	48	65.5	6.5	-	26.2	0.9	0.9	-
Bronze whaler shark	772,489	55,020	7	3	0	0	3	0	65.5	6.5	-	26.2	0.9	0.9	-
Mako shark	772,489	55,020	7	38	1	12	25	0	65.5	6.5	-	26.2	0.9	0.9	-
Porbeagle shark	772,489	55,020	7	59	0	38	21	0	65.5	6.5	-	26.2	0.9	0.9	-
Thresher shark	772,489	55,020	7	9	0	4	5	0	65.5	6.5	-	26.2	0.9	0.9	-
Pelagic stingray	772,489	55,020	7	22	0	0	21	1	65.5	6.5	-	26.2	0.9	0.9	-
Ray, unidentified	772,489	55,020	7	4	0	1	3	0	65.5	6.5	-	26.2	0.9	0.9	-
TOTAL	772,489	55,020	7	2,234	7	423	1,755	49	65.5	6.5	-	26.2	0.9	0.9	-

Table 17: Reporting of observed captures of non-target fish in CCSBT fisheries in 2019

Country: New Zealand Year (calendar year) 2019 Area: 6

	Total & Observed Effort			Observed Captures					Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)				TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)	Other							
Blue shark	727,470	82,928	11	4,820	1	564	4,163	92	-	0.4	0.7	98.9	-	-	-
Mako shark	727,470	82,928	11	34	0	14	17	3	-	0.4	0.7	98.9	-	-	-
Porbeagle shark	727,470	82,928	11	220	0	134	84	2	-	0.4	0.7	98.9	-	-	-
Thresher shark	727,470	82,928	11	1	0	0	1	0	-	0.4	0.7	98.9	-	-	-
Plunkets shark	727,470	82,928	11	1	0	0	1	0	-	0.4	0.7	98.9	-	-	-
Smooth skin dogfish	727,470	82,928	11	7	0	1	6	0	-	0.4	0.7	98.9	-	-	-
Shark, unspecified	727,470	82,928	11	37	0	0	0	37	-	0.4	0.7	98.9	-	-	-
Pelagic stingray	727,470	82,928	11	1	0	0	1	0	-	0.4	0.7	98.9	-	-	-
Ray, unidentified	727,470	82,928	11	1	0	0	1	0	-	0.4	0.7	98.9	-	-	-
Total	727,470	82,928	11	5,122	1	713	4,273	135	-	0.4	0.7	98.9	-	-	-

Table 18: Reporting of observed captures of non-target fish in CCSBT fisheries in 2020

Country: New Zealand Year (calendar year) 2020 Area: 5

	Total & Observed Effort			Observed Captures					Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)				TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)	Other							
Blue shark	787,667	67,591	9	1,746	0	222	1,476	48	65.5	6.5	-	26.2	0.9	0.9	-
Bronze whaler shark	787,667	67,591	9	6	0	2	4	0	65.5	6.5	-	26.2	0.9	0.9	-
Mako shark	787,667	67,591	9	41	0	15	21	5	65.5	6.5	-	26.2	0.9	0.9	-
Porbeagle shark	787,667	67,591	9	63	0	29	34	0	65.5	6.5	-	26.2	0.9	0.9	-
Thresher shark	787,667	67,591	9	14	0	6	8	0	65.5	6.5	-	26.2	0.9	0.9	-
Pelagic stingray	787,667	67,591	9	66	0	0	64	2	65.5	6.5	-	26.2	0.9	0.9	-
TOTAL	787,667	67,591	9	1,936	0	274	1,607	55	65.5	6.5	-	26.2	0.9	0.9	-

Table 19: Reporting of observed captures of non-target fish in CCSBT fisheries in 2020

Country: New Zealand Year (calendar year) 2020 Area: 6

	Total & Observed Effort			Observed Captures					Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)				TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)	Other							
Blue shark	712,744	69,828	10	1,698	2	221	1,370	105	-	0.4	0.7	98.9	-	-	-
Mako shark	712,744	69,828	10	4	0	2	2	0	-	0.4	0.7	98.9	-	-	-
Porbeagle shark	712,744	69,828	10	66	0	42	20	4	-	0.4	0.7	98.9	-	-	-
Seal shark	712,744	69,828	10	2	0	2	0	0	-	0.4	0.7	98.9	-	-	-
Smooth skin dogfish	712,744	69,828	10	1	0	1	0	0	-	0.4	0.7	98.9	-	-	-
Total	712,744	69,828	10	5,122	1	713	4,273	135	-	0.4	0.7	98.9	-	-	-

Table 20: Reporting of observed captures of marine reptiles in CCSBT fisheries in 2020*

Country: New Zealand Year (calendar year) 2020 Area: 5

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
Green turtle	787,667	67,591	9	1	0	1	0	65.5	6.5	-	26.2	0.9	0.9	-
TOTAL	787,667	67,591	9	1	0	1	0	65.5	6.5	-	26.2	0.9	0.9	-

* there were no observed turtle captures in 2019, nor in area 6 in 2020.

Table 21: Reporting of observed captures of marine mammals in CCSBT fisheries in 2019

Country: New Zealand Year (calendar year) 2019 Area: 5

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
New Zealand fur seal	772,489	55,020	7	6	0	3	3	65.5	6.5	-	26.2	0.9	0.9	-
TOTAL	772,489	55,020	7	6	0	3	3	65.5	6.5	-	26.2	0.9	0.9	-

Table 22: Reporting of observed captures of marine mammals in CCSBT fisheries in 2019

Country: New Zealand Year (calendar year) 2019 Area: 6

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
New Zealand fur seal	727,470	82,928	11	41	0	41	0	-	0.4	0.7	98.9	-	-	-
TOTAL	727,470	82,928	11	41	0	41	0	-	0.4	0.7	98.9	-	-	-

Table 23: Reporting of observed captures of marine mammals in CCSBT fisheries in 2020

Country: New Zealand Year (calendar year) 2020 Area: 5

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
New Zealand fur seal	787,667	67,591	9	6	0	0	6	74.2	-	9.2	16.6	-	-	-
TOTAL	787,667	67,591	9	6	0	0	6	74.2	-	9.2	16.6	-	-	-

Table 24: Reporting of observed captures of marine mammals in CCSBT fisheries in 2020

Country: New Zealand Year (calendar year) 2020 Area: 6

	Total & Observed Effort			Observed Captures				Proportion of observed effort with specific mitigation measures						
Species	Total Effort	Total Observed Effort	Observer Coverage	Captures (*number*)	Fate (*numbers*)			TP + NS	TP + WB	NS + WB	TP + WB + NS	TP only	NS only	Nil
					Retained (dead)	Discarded (dead)	Released (live)							
New Zealand fur seal	712,744	69,828	10	8	0	2	6	-	0.4	0.7	98.9	-	-	-
Common dolphin	712,744	69,828	10	1	0	0	1	-	0.4	0.7	98.9	-	-	-
TOTAL	712,744	69,828	10	9	0	2	7	-	0.4	0.7	98.9	-	-	-

Table 25: Commercially reported seabird captures in CCSBT fisheries during 2019 and 2020.

Year	CCSBT Stat Area	Total Effort (No. of Hooks)	Species	Number Caught	Number Dead
2019	5	772,489	Flesh-footed shearwater	1	1
			Albatrosses (Unidentified)	1	0
			Total	**2**	**1**
2019	6	727,470	Wandering (Snowy) albatross	3	0
			Flesh-footed shearwater	1	1
			Buller's shearwater	2	1
			Common diving petrel	2	2
			Black (Parkinson's) petrel	2	2
			Albatrosses (Unidentified)	16	11
			Total	**23**	**17**
2020	6	712,744	Albatrosses (Unidentified)	15	14
			Buller's shearwater	4	4
			Common diving petrel	8	7
			Total	**27**	**25**

* There were no commercially reported seabirds captures in area 5 in 2020.

Table 26: Commercially reported non-target fish captures in CCSBT fisheries during 2019 and 2020.

Year	CCSBT Stat Area	Total Effort (No. of Hooks)	Species	Number Caught	Number Retained	Number Discarded
2019	5	772,489	Blue Shark	23,497	41	23,456
			Mako shark	740	10	739
			Porbeagle shark	630	0	630
			Bronze whaler shark	28	0	28
			Thresher shark	78	0	78
			Moonfish	407	407	0
			Total	**25,389**	**458**	**24,931**
2019	6	727,470	Blue Shark	29,819	107	29,712
			Mako shark	215	23	192
			Porbeagle shark	1,752	772	980
			Bronze whaler shark	0	0	0
			Thresher shark	20	0	20
			Moonfish	225	224	1
			Total	**32,031**	**1,126**	**30,905**
2020	5	787,667	Blue Shark	19,307	12	19,295
			Mako shark	592	80	512
			Porbeagle shark	562	23	539
			Bronze whaler shark	14	0	14
			Thresher shark	98	19	79
			Moonfish	1,019	1,007	12
			Total	**21,592**	**1,141**	**20,451**
2020	6	712,744	Blue Shark	10,986	0	10,986
			Mako shark	74	31	43
			Porbeagle shark	615	199	416
			Bronze whaler shark	0	0	0
			Thresher shark	13	13	0
			Moonfish	160	158	2
			Total	**11,848**	**401**	**11,447**

Table 27: Commercially reported marine mammal captures in CCSBT fisheries during 2019 and 2020.

Year	CCSBT Stat Area	Total Effort (No. of Hooks)	Species	Number Caught	Number Dead
2019	5	772,489	New Zealand fur seal	12	1
			Seals and Sealions (unidentified)	1	0
			Common dolphin	1	0
			Bottlenose dolphin	**1**	**0**
2019	6	727,470	New Zealand fur seal	35	2
2020	5	787,667	New Zealand fur seal	15	0
			Southern right whale	1	0
2020	6	712,744	New Zealand fur seal	30	3
			Common dolphin	1	0

Table 28: Commercially reported marine reptile captures in CCSBT fisheries during 2019 and 2020. *

Year	CCSBT Stat Area	Total Effort (No. of Hooks)	Species	Number Caught	Number Dead
2019	5	772,489	Leatherback turtle	3	0
2020	5	787,667	Green turtle	2	1
			Leatherback turtle	4	0
			Loggerhead turtle	1	0

* There were no commercially reported reptiles captures in area 6 in 2019 and 2020.

13 Appendix – Figures

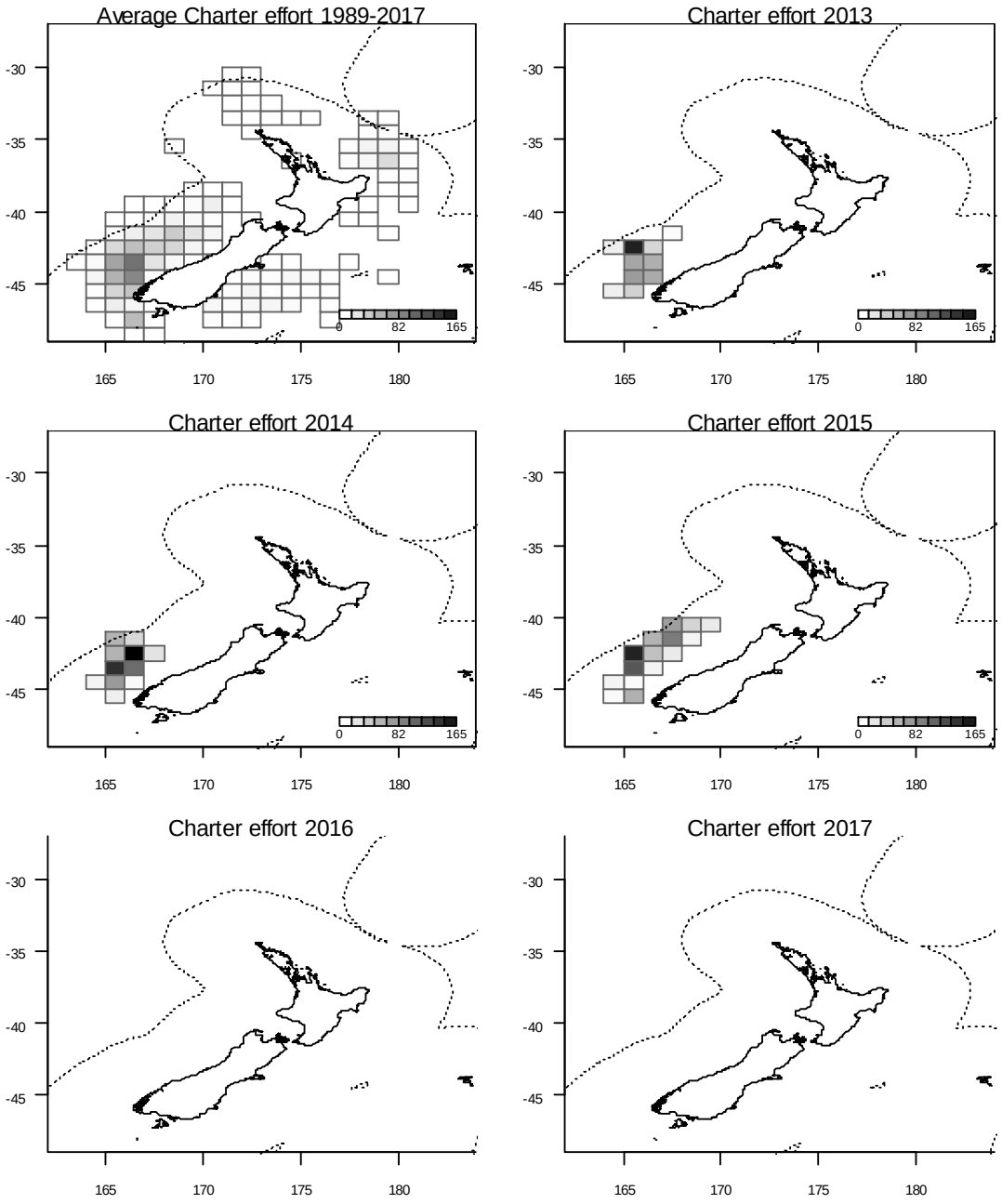

Figure 1: Distribution of longline effort (1,000s of hooks per one degree square) for the charter fleet: average for the time series (1989 to 2015), and annually for 2013 to 2017. (No charter vessels have fished since 2015.)

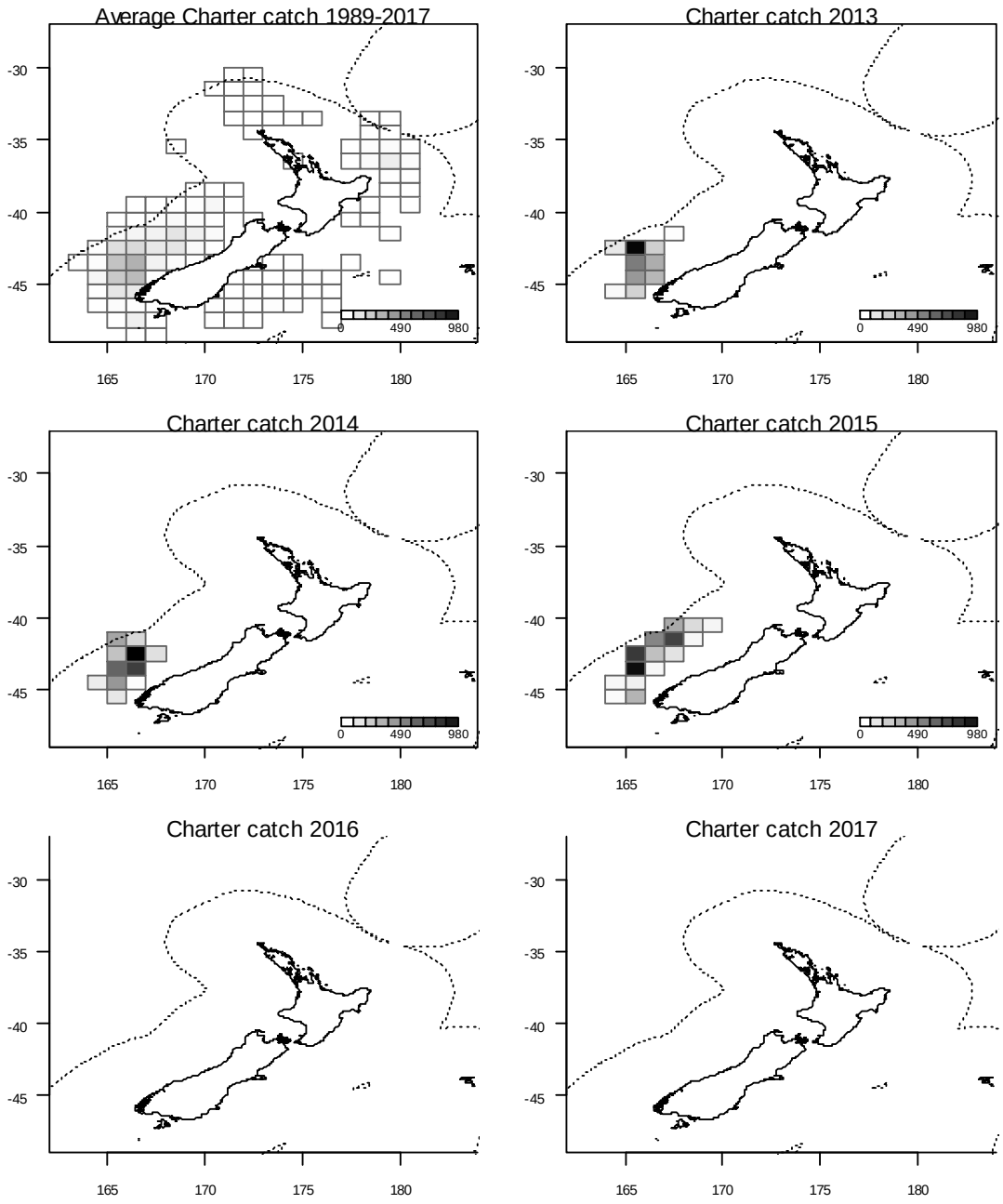

Figure 2: Distribution of longline catches (number of fish per one degree square) for the charter fleet: average for the time series (1989 to 2015), and annually for 2013 to 2017. (No charter vessels have fished since 2015.)

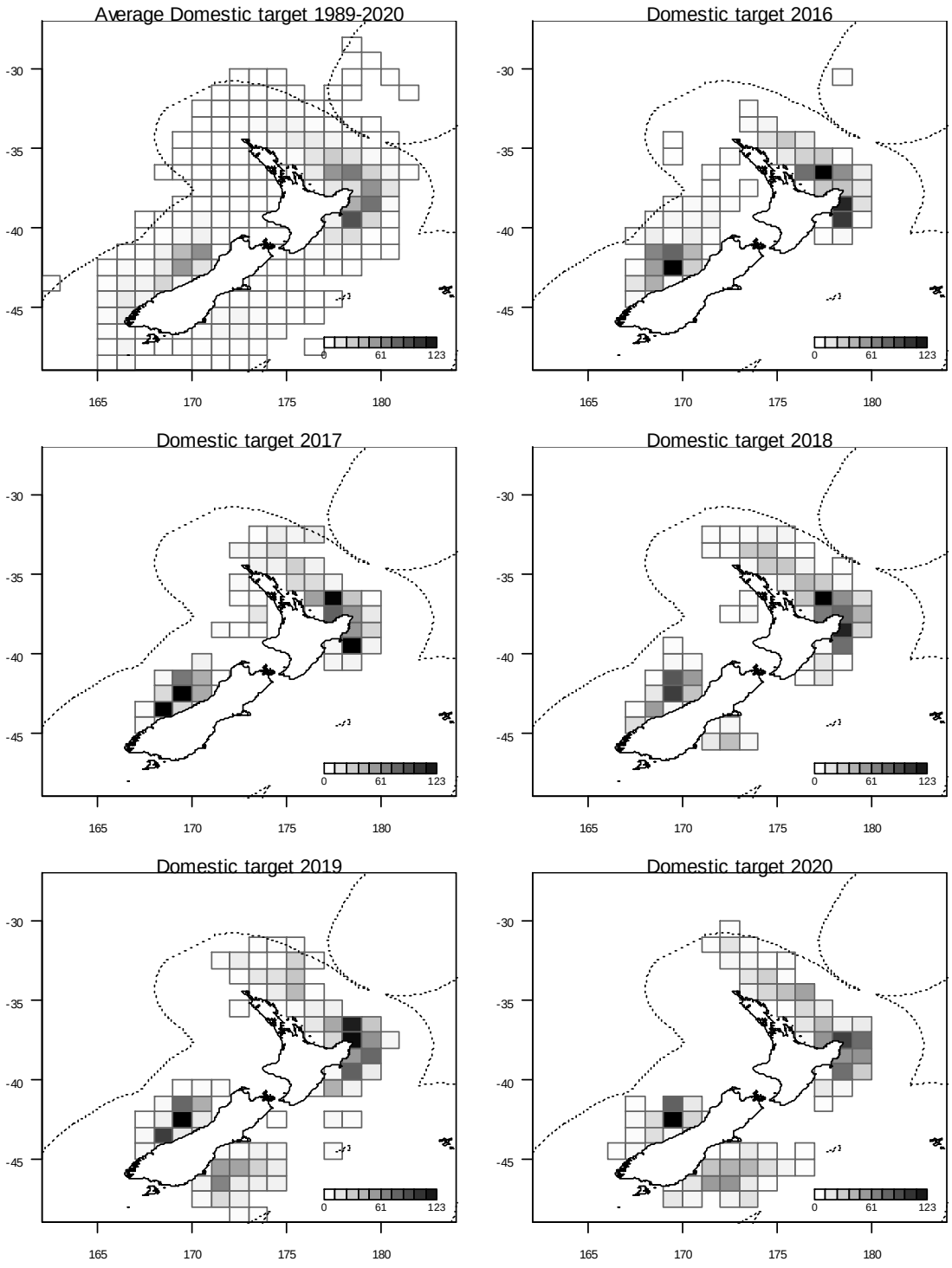

Figure 3: Distribution of longline effort (1,000s of hooks per one degree square) for the domestic commercial fleet that was targeted at SBT: average for the time series (1989 to 2020), and annually for 2016 to 2020.

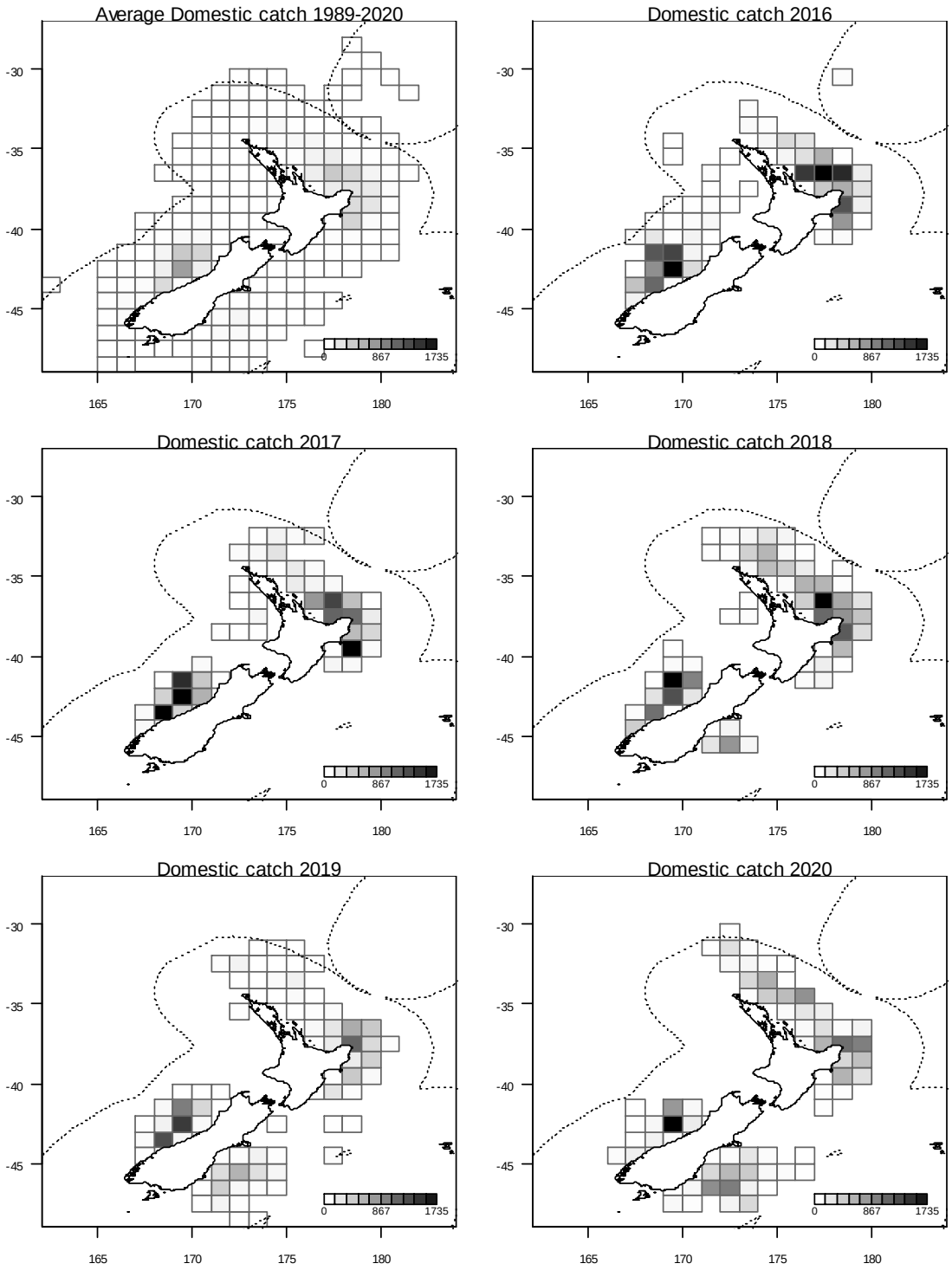

Figure 4: Distribution of longline catches (number of fish per one degree square) for the domestic fleet: average for the time series (1989 to 2020), and annually for 2016 to 2020.