

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p>Eighth Meeting of the Seabird Bycatch Working Group</p> <p><i>Wellington, New Zealand, 4 – 6 September 2017</i></p> <p>Implementation and review of New Zealand's 2013 NPOA-Seabirds</p> <p><i>Sonja Austin, Nathan Walker, Igor Debski, Karen Baird</i></p>
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SUMMARY

This paper summarises the implementation of New Zealand's '2013 National Plan of Action - to reduce the incidental catch of seabirds in New Zealand Fisheries' to date and gives an overview of the planned review and revision of New Zealand's NPOA-Seabirds.

1. IMPLEMENTATION OF NEW ZEALAND'S NPOA-SEABIRDS

The NPOA-Seabirds defines over-arching objectives for the prevention, monitoring and management of incidental seabird capture in New Zealand fisheries and how these objectives are to be addressed and implemented. Specifically it:

- has an overarching goal of reducing the fishing pressure on New Zealand seabirds through avoidance or mitigation and ensuring New Zealand fisheries are globally recognised as being seabird friendly.
- requires species currently categorised as high or very high risk in the seabird risk assessment (e.g. black petrel) to move to a lower category of risk by reducing the level of mortality from commercial fisheries.
- provides for new monitoring tools to be researched, developed and implemented.

Provides for species specific action plans to be developed that describe specific management actions for particular species with a serious concern on status and with an identified need to understand and manage threats more widely.

The following sections describe the activities under the key areas of implementation under New Zealand's NPOA-Seabirds. This is an update to [SBWG7 Inf 22 Rev 1](#).

1.1. Vessel specific management plans to reduce the bycatch of seabirds

Vessel management plans or seabird management plans have been developed for a range of fisheries, including those that pose a significant risk to seabirds. Liaison Officer programmes, including the Deepwater Group Environmental Liaison Officer and DOC's CSP (Department of Conservation's Conservation Services Levy) Seabird Liaison Officer Programme (now the Protected Species Liaison Project) have played key roles in the development of the plans. Liaison programmes provide advice on how to implement effective seabird mitigation and ensure regular engagement with fishers.

Specifically, the Deepwater Group has led the development and installation of vessel management plans on all deepwater and middle depths trawl vessels, and operational procedures have been developed for large bottom longline vessels and small vessel bottom longline vessels targeting ling.

Vessel management plans describe the seabird mitigation deployed by the vessel, and describe a real time reporting and response process if three or more large seabirds or five or more small seabirds are caught in any 24 hour period or if 10 or more seabirds are caught in any seven day period. Vessel performance against the plans is audited by government observers and reported to MPI and the Deepwater Group. Over the last three years (between 2013/14 and 2015/16), the percentage of observed trips that required follow up has reduced from 19% to 12%.

Over the last three years, a DOC liaison officer has developed Seabird Management Plans for all FMA 1 (Fishery Management Area, in Northeast New Zealand) bottom longline vessels (between November 2016 and April 2017 there were 40 active vessels). Thirty one plans were refined during a follow up visit by the liaison officer between November 2016 and April 2017 and 8 new plans were created. These plans document the seabird mitigation used by the vessel as well as ongoing developments, reporting of captures, information-sharing between fishers, training, and involve subsequent audit. Government observers deployed in the fleet have commenced reporting on whether the plans are adhered to during their period on board. During 2016/17, all but one of the plans were found to be representative of the vessel's fishing practices. For the plan that wasn't representative the weight spacing was longer than specified in the plan. The plan was subsequently modified. See more details in **SBWG8 Inf 19**.

Following higher than normal observed capture rates of seabirds in the 2015/16 surface longline fishery, a DOC liaison officer began engaging with the surface longline fleet in 2016. As part of this programme all surface longline vessels have received advice and assistance on developing suitable tori lines, following a period of investigation into the most suitable materials and attachment methods. All of the vessels now have seabird management plans on board.

The Southern Inshore Fisheries Management Company has developed Seabird Management Plans for 40 (85%) South Island inshore trawl vessels between 14 – 28m in length. Plans have also been developed for 13 vessels smaller than 14 m on an opportunistic basis.

1.2. Mitigation stocktake

The Southern Seabird Solutions Trust (SSST), with funding from MPI, industry and WWF-NZ have carried out a stocktake of all mitigation measures that are either in use in New Zealand fisheries, or in development locally or overseas. The report provides a framework to prioritise mitigation measures for further research, funding or greater utilisation based on their current level of implementation and research status. See **SBWG8 Inf 20**.

1.3. Seabird smart training

The Deepwater Group Environmental Liaison Officer provides annual seabird briefings to vessel operators for all deepwater trawl vessels. In inshore fisheries, SSST with funding from MPI, DOC and fishing companies, has trained 275 longline and trawl skippers and crew in 17 ports around New Zealand. As of August 2017, all bottom longline skippers in Fisheries Management Area 1 (north-eastern New Zealand) will have attended a Seabird Smart Training Programme.

1.4. Consideration of line weighting as mandatory

MPI continue to consider making the use of line weighting mandatory in order to strengthen seabird mitigation measures in the surface longline fishery.

Last year, MPI consulted directly with stakeholders at two Longline Workshops and two Fish Plan Advisory Group meetings. Additionally, a consultation document was released and 12 submissions were received from the fishing industry, environmental groups, and a member of the public.

The main concern highlighted during the consultation process was the increased risk to crew health and safety associated with line weighting due to fly-backs. MPI is therefore giving the proposal government-wide consideration in order to ensure the fishing industry would be in the best possible position to comply safely with measures.

1.5. Recreational fishing

Over 80% of recreational fishing effort occurs in the northern regions of the North Island, so most education and outreach work has focused in this area.

SSST received funding from the DOC Community Fund to develop an educational programme focused on building a “seabird smart” fishing culture in the northern recreational sector. With expert input from a group of charter skippers, a series of brochures, posters, and video clips were developed for use at boat ramps, fishing clubs, boat shows, fishing retail outlets, and online. Key messages related to how to minimise contact with seabirds, and how to handle live birds to increase their chances of survival. TV personalities and the recreational fishing franchise Hunting and Fishing also helped spread the “seabird smart” fishing message.

The MPI recreational fishing team worked collaboratively with SSST to disseminate seabird-related messages through the development of a responsible fishing brochure, articles in popular fishing magazines, and through social media. MPI invited SSST to share the MPI stand at several key northern fishing and boats shows, including Hutchwilco and the On Water Boat

Show. Fisheries Officers also handed out brochures to recreational fishers during patrols in the Hauraki Gulf.

Forest & Bird through funding from Packard (through BirdLife International) undertook 12+ months of engagement on recreational fisheries issues in the Hauraki Gulf. Outputs included production of water proof seabird ID /safe seabird release poster (2000 distributed through competitor packs at boat show); engagement with charter boat operators; 3 safe seabird fishing videos (Big Angry Fish, Fisher-chick and seabird release video); articles in social media and magazines; presence at key community and fishing events and presentations to clubs and societies; Engagement with kids through Hiwi the Kiwi seabird song; <http://www.forestandbird.org.nz/campaigns/off-the-hook>

1.6. Capture rate reduction targets

A capture rate reduction target working group was set up in 2015 with the purpose of developing a process to set meaningful capture rate reduction targets. The working group agreed that these capture rate reduction targets are intended as a gauge against which the objective of continuous improvement in New Zealand fisheries can be measured. The criteria for setting a baseline capture rate were determined as the average estimated capture rate across the three year block immediately preceding the implementation of the NPOA Seabirds, derived only from trips with at least 10% observer coverage and relatively high confidence (a coefficient of variation¹ of less than 0.30). A meaningful target can be set following consideration of relevant factors including the actual number of seabird captures involved, the estimated capture rate and the level of effort in the fishery.

For fisheries that do not meet these criteria due to low levels of observer coverage and insufficient information, options for setting and monitoring proxy targets for seabird capture were also specified by the working group.

Quantitative targets have been specified for the squid trawl and middle depths trawl fisheries only and these are in place so as to monitor progress towards a statistically significant decrease in capture rate based on a three-year rolling average when compared to the baseline capture rate. For squid trawl the current target is 12 captures per 100 tows compared to a baseline of 14 captures per 100 tows (a reduction of 14%) and for middle depths trawl the current target is 2.3 captures per 100 tows compared to a baseline of 2.7 captures per 100 tows (a reduction of 15%). These may be updated before the end of the current NPOA due to changes in estimation methods used for the total captures of seabirds.

All other New Zealand fisheries require proxy targets to ensure progress is made towards reducing capture rates. The following proxy targets have been specified for surface longline fisheries; 100% compliance rate for observed mitigation use, 100% of the fleet has seabird management plans in place and the level of non-fish bycatch reporting is \pm 20% of observed non-fish bycatch reporting. For FMA 1 bottom longline fisheries the following proxy targets have been specified; all skippers have completed seabird smart training and all vessels have a seabird management plan on board. Proxy targets for the other deepwater fleets that do not have quantitative targets set include continued monitoring to ensure there is no significant increase, ensuring all vessels have a management plan on board and are visited by the

¹ Coefficient of variation (CV) is a metric of the variation of the data around the mean. It allows for comparison of the variation within and across data sets.

Deepwater Group Environmental Liaison Officer and a target of observing 15% of total effort. Proxy targets have not been specifically set for the remaining inshore fisheries however 85% of target trawl vessels on the South Island (vessels between 14m and 28m in length) have seabird management plans on board.

1.7. Total estimates of seabird bycatch in New Zealand

MPI has continued to undertake estimates of the total seabird bycatch from New Zealand commercial fishing, see more detail in **SBWG8 Inf 30**. The estimates including the 2015/16 fishing year are able to be viewed on an interactive website, <https://data.dragonfly.co.nz/psc/>.

MPI has also tendered further research to estimate the recreational bycatch of seabirds, although the accuracy of this research will be limited as much of the data cannot be verified (e.g. by observers).

1.8. New Zealand seabird risk assessment

The seabird risk assessment methodology used in New Zealand to understand the impacts of commercial fishing on seabird populations, has been revised. See **SBWG8 Inf 30** for more details on the revised methodology and results.

In June 2016, MPI ran an expert review workshop of the Spatially Explicit Fisheries Risk Assessment (SEFRA) approach used in New Zealand, with the seabird risk assessment the most mature risk assessment of this type. The final report was still being finalised as this report was drafted. Any relevant recommendations from this workshop will be considered to be incorporated in a future iteration of the seabird risk assessment planned for early 2018.

Also under development is a risk disaggregation and simulation tool to allow users to explore the results of the risk assessment at finer scale and allow the risk assessment to be used to assess management strategies and other quantitative uses

1.9. Recent mitigation research

Following initial Hookpod trials in 2013, a new model of Hookpod, the Hookpod-mini, was developed to suit the fishing operations of the New Zealand (small vessel) surface longline fishery. Recently testing further trials tested the operational and mitigation effectiveness of the Hookpod-mini relative to current fishing practices in the fleet, through depth opening trials, experimental and long-term trials during commercial fishing and collection of sink rate data. See more details in **SBWG8 Inf 18**.

1.10. Seabird population research

New Zealand has continued a reasonably extensive set of biological and population monitoring research under the DOC's CSP and MPI protected species programme. See some examples of this research in **PACSWG4 Doc 03** and **PaCSWG4 Inf 16, 17 and 18**.

1.11. Highlighting concerning trends of the Antipodean albatross

Antipodean albatrosses, (*Diomedea antipodensis*) consists of two New Zealand endemic subspecies. *Diomedea a. antipodensis* breed almost exclusively on Antipodes Island (New Zealand subantarctic), and following a dramatic population crash in 2005, adult males have been declining at 5% per annum and females at 11% per annum. The decline appears to be driven in large part by very high female mortality, in some years up to 20%, though reduced breeding success and increased recruitment age have exacerbated the problem. Since 2005 most females when not breeding have extended their foraging range including regular visiting the coast off Chile, waters which they rarely visited in the past. Considering the absence of land-based threats, the main cause of high female mortality appears to be fisheries bycatch north of New Zealand and in the central and eastern Pacific between 20-30 degrees south. If this steep and rapid decline continues at the current rate, it has been predicted that *D. a. antipodensis* will be functionally extinct in 28 years. New Zealand's believes it is now one of the great albatrosses most threatened by bycatch and warrants consideration as an ACAP priority population for conservation management. For more detail see **PaCSWG4 Doc 03**.

In addition to tracking general capture rate reduction (or proxy targets), the NPOA-Seabirds necessitates the creation of species-specific action plans for high risk species. Gibson's and Antipodean albatrosses have been identified as high risk species, and species-specific action plans were published in 2016/17 outlining a plan to achieve the NPOA-Seabird biological objective of moving high risk species into a less-threatened risk category by 2018. In 2017, based on increased concern about the status of the Antipodean albatross, an Antipodean Albatross Working Group was established. The group is currently developing a work plan.

1.12. New observation and monitoring methods

1.12.1. Black petrel electronic monitoring 'proof of concept'

Commercial fishers and quota owners, together with MPI, and DOC, and the Black Petrel Working Group (BPWG) have undertaken a proof of concept project 'to assess the effectiveness of EM relative to human observation in detecting and recording seabird bycatch to species level.' Specifically this project aims to improve the accuracy of the estimates of total captures, and capture rates, of seabirds (particularly black petrel and flesh-footed shearwater) in FMA 1 BLL fisheries. See more detail in **SBWG8 Inf 22**.

1.12.1. Development of a broad electronic reporting and monitoring system

The New Zealand Government is developing a new commercial fisheries reporting and monitoring system comprising:

- a. Electronic fisheries catch and effort reporting by fishers,
- b. Automated position reporting from fishing operations, and,
- c. Electronic monitoring using cameras on fishing vessels.

The purpose of the new system is to provide verifiable, accurate, integrated and timely data on commercial fishing activity to inform decisions of fisheries managers in Government and industry. The new system will provide an unprecedented understanding of the extent of seabird

bycatch in New Zealand commercial fisheries, and significantly improved information to support the characterisation of bycatch risks. Over time, the larger and more robust information base emerging from the new reporting and monitoring system will enable better decision-making and more targeted management actions relating to seabird interactions with commercial fisheries. See **SBWG8 Inf 29** for more details.

1.13. Southern hemisphere seabird risk assessment

New Zealand intends to extend the risk assessment framework applied to main fishing methods within the New Zealand Exclusive Economic Zone (EEZ) to a broader set of fisheries. To date, the methodology has been applied to public tuna regional fisheries management organisation (RFMO) fishing data throughout the southern hemisphere for the 26 ACAP listed seabird species that breed in the southern hemisphere.

The intention is to seek additional data and active collaborations to refine this approach and apply it across high seas, and EEZ data (where available). See **SBWG8 Doc 07**.

2. REVIEW AND REVISION PROCESS FOR NEW ZEALAND'S NPOA-SEABIRDS

New Zealand has commenced the review process (as required under paragraph 145 of the NPOA-Seabirds 2013) and are examining the extent to which the five year objectives have been met and considering the extent to which they and the longer term objectives need modification and also assessing the effectiveness of the implementation processes set out in the current NPOA.

The NPOA's Seabird Advisory Group (SAG) is contributing to the review (as provided in para. 7 of Annex IV of the current NPOA). SAG participation is reflective of the interests that were involved in the development of the current NPOA, including; the commercial industry, the recreational sector, NGOs and the relevant government departments.

Following the review of the current NPOA, the goal is to establish a revised NPOA in mid-2018, although it is worth recalling that the current NPOA will remain in effect until it is superseded by a revised NPOA.