Commission for the Conservation of
Southern Bluefin Tuna

みなみまぐろ保存委員会

CCSBT-EC/2610/16

Seabird Priority Species & High-Risk Areas

Overview

This paper provides background on the request from the 16th meeting of the Ecologically Related Species Working Group (ERSWG) for the Extended Commission to adopt its recommendations and make a decision on risk setting as part of the determination of High-Risk Areas.

Background

Priority Species and High-Risk Areas

During this year's meeting, the Chair of the ERSWG convened a small technical group to discuss more technical aspects of proposals put forward by Japan and New Zealand and to design a proposal to achieve actions outlined under the Multi-Year Seabird Strategy.

Based on the outcomes of the small technical group discussions, the ERSWG extensively discussed Action Item 1A, 1C, 1D and 1F of the Multi-Year Seabird Strategy (including priority species, high-risk areas, and options for additional management measures in those high-risk areas). The ERSWG's recommendations on each of these elements are provided in **Attachment A**.

The ERSWG noted, when discussing the high-risk areas proposal, that there was scope for a choice in the level of risk being considered within the high-risk areas, and recommended that the Extended Commission decide among three identified thresholds for determining the level of risk covered within the high-risk areas.

The ERSWG noted that, when choosing a threshold, there is a trade-off between a) restricting the number of cells defined in high-risk areas and b) ensuring a sufficient amount of relative mortality addressed across taxa in high-risk areas.

- At a low risk threshold (e.g. 50 %), there is a low number of cells and the relative mortality addressed is mainly limited to the highest risk taxon.

- At a medium risk threshold (e.g. 60 %), there is still a relatively low number of cells and the relative mortality addressed is spread across taxa (higher risk taxa).

- At a high-risk threshold (e.g. 70 %), there is a relatively larger number of cells and the relative mortality addressed is across taxa.

Advice on Additional Management Measures in High-Risk Areas

Notwithstanding the existing measures required of Members under the CCSBT ERS Resolution, the ERSWG agreed to recommend the EC to adopt additional measures, either singly or in combination, to address high-risk areas of seabird bycatch using the following toolbox to better understand and reduce risk to seabirds in identified high-risk areas:

- Option 1: Improving monitoring requirements (specified levels of EM or observer placement taking into account scientific literature) - XX% e-monitoring with XX% review rate, or XX% human observer placement.
- Option 2: Reducing effort in high-risk areas by XX% (e.g. spatial/temporal limits).
- Option 3: Enhancing mitigation measures when operating in identified high risk areas (e.g. 'three out of three', hook-shielding devices, prioritising night setting), or establishing and delivering on a bycatch limit or rate – noting a minimum monitoring requirement if this option is selected.

ERSWG also agreed to recommend the EC:

- Phasing in the approach over time and over areas (accounting for risk level in each area) and to progress from better understanding risk to reducing risk over time and ideally aligning timeframes across Members.
- Establish a process to annually notify Member commitment to a seabird bycatch mitigation plan in identified high-risk areas to the Secretariat, starting reporting in 2027 including timeframes for implementation. The plan must include at least one of the above three options. This could include a new section of the annual report reviewed by ERSWG, and the Compliance Committee (CC) as appropriate, and added as new agenda items in ERSWG and CC meetings.
- CCSBT Members collaboratively work with other tuna RFMOs to enact above options in other areas of competence.

Depending on the technology available to a CCSBT Member, management plans should be tailored to achieve the stated goals in the identified High-Risk Areas. These could be achieved for example by Member specific plans at:

- High-Risk Area scale
- CCSBT Statistical Area scale
- Latitudinal band scale

Next Steps

The Extended Commission is asked to:

- Consider the information and recommendations from ERSWG provided at Attachment A;
- Adopt the ERSWG decision that that relative mortality for each seabird population (as estimated using a SEFRA model like that finalized in 2025) should be reduced, so that the median is less than 0.10 and the upper 95% C.I. bound is less than 0.50;
- Adopt the ERSWG decision which determined that thirteen species of seabirds were assessed as having a median or upper 95% C.I. 0.1 or 0.5 respectively from contributing CCSBT member pelagic longline fisheries. ERSWG agreed that these should be considered as priority species.; and

- Agree on one of the three presented options under Seabird Strategy Action 1F (i.e. setting of 50, 60, or 70% of the total risk posed to priority species by CCSBT fisheries).

Prepared by the Secretariat

High Risk Areas

5.1.3 Assessment and advice on management measures

ERSWG16 - Canberra

Action 1A

To agree on a SBT seabird bycatch target for reducing the level of impact of SBT fishing operations on seabird populations, including, but not limited to:

a. Targets based on nominal reported seabird bycatch rates.

b. Targets based on SEFRA outputs

ERSWG agreed that relative mortality for each seabird population (as estimated using a SEFRA model like that finalized in 2025) should be reduced, so that the median is less than 0.10 and the upper 95% C.I. bound is less than 0.50.

Action 1C

Evaluate the effectiveness of the seabird CMMs introduced around 2005 by tuna RFMOs, in the context of reducing the overall seabird mortalities, taking into consideration fleet differences and seabird distributions and identify the areas for improvement. The outcomes from the evaluation will be communicated across tuna RFMOs and used as a basis for future evaluations.

In conjunction with all other threats and risks to seabird populations, despite the seabird CMMs in place for tuna RFMOs, many seabird taxa are still threatened with extinction, declining, and still subject to significant bycatch in pelagic longline fisheries. In that context, although those CMMs may have been effective at reducing seabird bycatch, they have not resulted in the recovery of such populations. This is partly because any reduction in overall seabird bycatch rate has not necessarily resulted in sufficient reduction of the bycatch of species of concern. ERSWG believes that the focused effort of monitoring and reducing bycatch in the high risk areas identified with SEFRA, using available methods that are well understood, practical, and have minimal impact on target species catch, would be more effective and that improvements over time can be tracked using periodic SEFRA analyses estimating catchability and risk over different time blocks.

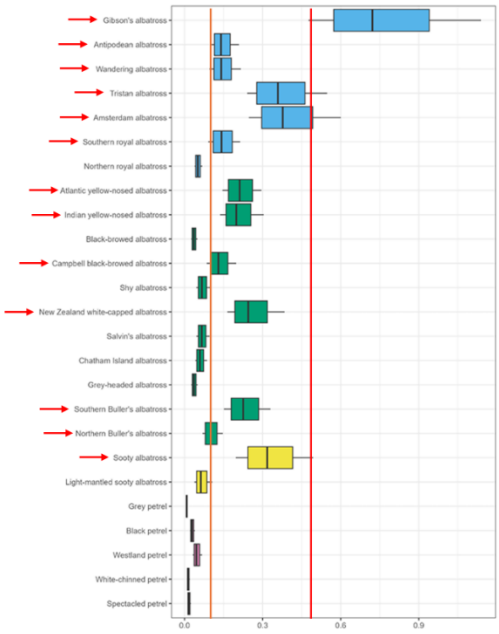
Action 1D

Agree on the list of priority species and corresponding management targets, taking into account the status of seabird population, distributional overlaps with SBT fisheries, and significance of SBT fisheries in their mortality.

Thirteen species of seabirds were assessed as having a median or upper 95% C.I. 0.1 or 0.5 respectively from contributing CCSBT member pelagic longline fisheries. ERSWG agreed that these should be considered as priority species. Within this group, the four species at highest risk, Gibson's, Amsterdam, Tristan, and Sooty albatrosses. These had the largest effect on the overall risk surface for the priority species.

Action 1D

Preferred option for selecting Priority Species
Relative Mortality
- Median 0.1
- Upper 95% C.I. 0.5



Action 1D

Preferred option for selecting Priority Species
Relative Mortality
- Median 0.1
- Upper 95% C.I. 0.5

FAO Code	Common name	Spp. Group	IUCN	Total RM
DIW	Gibson's albatross	Great albatross	EN	0.735
DQS	Antipodean albatross	Great albatross	EN	0.142
DIX	Wandering albatross	Great albatross	VU	0.143
DBN	Tristan albatross	Great albatross	CR	0.356
DAM	Amsterdam albatross	Great albatross	EN	0.387
DIP	Southern royal albatross	Great albatross	VU	0.142
DIQ	Northern royal albatross	Great albatross	EN	0.051
DCR	Atlantic yellow-nosed albatross	Mollymawk	EN	0.211
TQH	Indian yellow-nosed albatross	Mollymawk	EN	0.201
DIM	Black-browed albatross	Mollymawk	LC	0.035
TQW	Campbell black-browed albatross	Mollymawk	VU/LC	0.13
DCU	Shy albatross	Mollymawk	NT	0.067
TWD	New Zealand white-capped albatross	Mollymawk	NT	0.245
DKS	Salvin's albatross	Mollymawk	VU	0.067
DER	Chatham Island albatross	Mollymawk	VU	0.06
DIC	Grey-headed albatross	Mollymawk	EN	0.036
DSB	Southern Buller's albatross	Mollymawk	NT	0.228
DNB	Northern Buller's albatross	Mollymawk	NT	0.101
PHU	Sooty albatross	Sooty albatross	EN	0.319
PHE	Light-mantled sooty albatross	Sooty albatross	NT	0.064
PCI	Grey petrel	Medium petrel	NT	0.008
PRK	Black petrel	Medium petrel	VU	0.029
PCW	Westland petrel	Medium petrel	EN	0.046
PRO	White-chinned petrel	Medium petrel	VU	0.013
PCN	Spectacled petrel	Medium petrel	VU	0.016

Action 1F

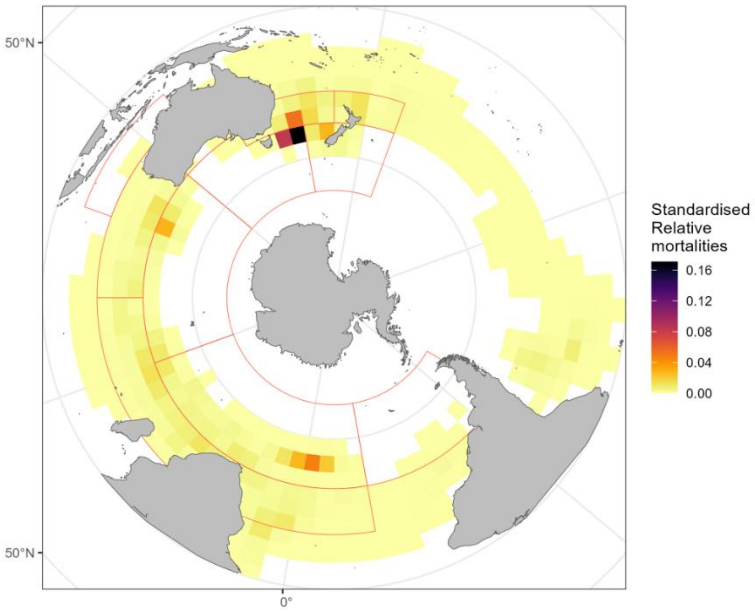
Establish a robust definition of high-risk areas that takes into account the precautionary approach by:

a. Establishing a definition of high-risk areas.
b. Identifying areas that meet the definition.
c. Characterising the nature of the risk in each area.
d. Developing tailored measures aimed at reducing those risks.

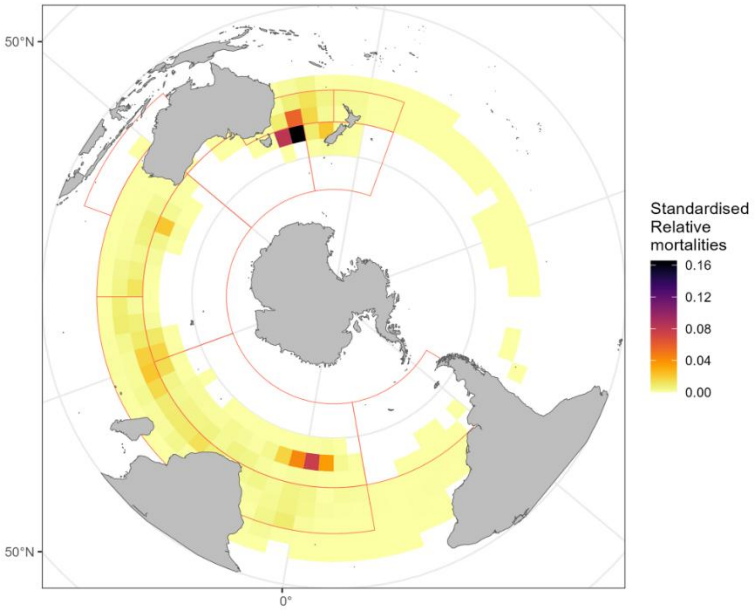
a) ERSWG agreed that high risk areas could be robustly established by identifying the 5x5 degree squares that contained 50, 60 or 70% of the total risk posed to priority species by contributing CCSBT member pelagic longline fisheries.

b) Such areas can readily be mapped using outputs from the 2025 SEFRA and appear in the Tasman Sea (where Gibson's albatross are caught), Indian Ocean (where Amsterdam albatross are caught) and South Atlantic (where Tristan albatross and Sooty albatross are caught).

Total risk layer
Priority spp.
Non-zero



Total risk layer
Top 4 spp., RM > 0.3
Non-zero



c) Characterising the nature of the risk in each area.

Data sources for ocean basin coordinates:
Limits of Oceans and Seas (1953), International Hydrographic Organization, *Special Publication N.28 p.45*

63.—Tasman Sea.

On the West.

A line from Gabo Island (near Cape Howe, 37°30' S) to the Northeast point of East Sister Island (148° E) thence along the 148th meridian to Flinders Island; beyond this Island a line running to the Eastward of the Vansittart Shoals to Barren Island, and from Cape Barren (the Easternmost point of Barren Island) to Eddystone Point (41° S) in Tasmania, thence along the East coast to South East Cape, the Southern point of Tasmania.

On the North.

The parallel of 30° S from the Australian coast Eastward as far as a line joining the East extremities of Elizabeth Reef and South East Rock (31°47' S, 159°18' E) then to the Southward along this line to the South East Rock.

On the Northeast.

From the South East Rock to the North point of Three Kings Islands (34°10' S, 172°10' E) thence to North Cape in New Zealand.

On the East.

In Cook Strait.

A line joining the South extreme of the foul ground off Cape Palliser (Ngawi) and the Lighthouse on Cape Campbell (Te Karaka).

In Foveaux Strait (46°45' S).

A line joining the Light on Waipapapa Point (168°33' E) with East Head (47°02' S) of Stewart Island (Rakiura).

On the Southeast.

A line running from South West Cape, Stewart Island, through The Snares (48° S, 166°30' E) to North West Cape, Auckland Island (50°30' S, 166°10' E), through this island to its Southern point.

On the South.

A line joining the Southern point of Auckland Island (50°55' S, 166° E) to South East Cape, the Southern point of Tasmania.

45.—Indian Ocean.

On the North.

The Southern limits of the Arabian Sea (39) and the Laccadive Sea (42), the Southern limit of the Bay of Bengal (43), the Southern limits of the East Indian Archipelago (48), and the Southern limit of the Great Australian Bight (62).

On the West.

From Cape Agulhas in 20° long. East, Southward along this meridian to the Antarctic Continent.

On the East.

From South East Cape, the Southern point of Tasmania down the meridian 146°55' E to the Antarctic Continent.

On the South.

The Antarctic Continent.

32.—South Atlantic Ocean.

(*) *On the Southwest.*

The meridian of Cape Horn (67°16' W) from Tierra del Fuego to the Antarctic Continent; a line from Cape Virgins (52°21' S, 68°21' W) to Cape Espiritu Santo, Tierra del Fuego, the Eastern entrance to Magellan Strait.

On the West.

The limit of the Rio de La Plata (33).

On the North.

The Southern limit of the North Atlantic Ocean (23).

On the Northeast.

The limit of the Gulf of Guinea (34).

On the Southeast.

From Cape Agulhas along the meridian of 20° East to the Antarctic continent.

On the South.

The Antarctic Continent.

Proportion of risk contributed from the three basins identified to contain High Risk Areas

Priority spp. Non-zero

Note, these columns do not sum to 100% as there is some risk outside the Atlantic Ocean, Indian Ocean, and TasmanSea

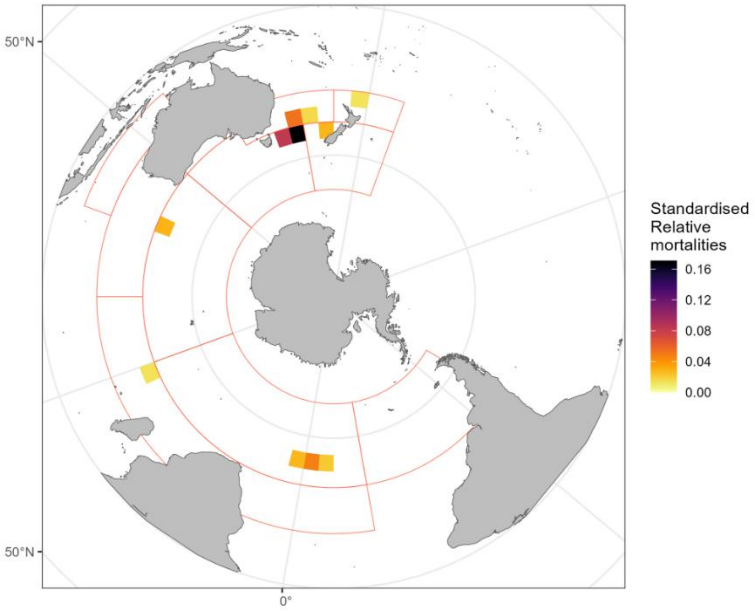
Spp. Code	Common name	Spp. Group	IUCN	RM Total	Atlantic Ocean %	Indian Ocean %	Tasman Sea %
DIW	Gibson's albatross	Great albatross	EN	0.735	0%	0%	97%
DQS	Antipodean albatross	Great albatross	EN	0.142	0%	0%	49%
DIX	Wandering albatross	Great albatross	VU	0.143	7%	82%	8%
DBN	Tristan albatross	Great albatross	CR	0.356	82%	18%	0%
DAM	Amsterdam albatross	Great albatross	EN	0.387	0%	100%	0%
DIP	Southern royal albatross	Great albatross	VU	0.142	3%	1%	89%
DIQ	Northern royal albatross	Great albatross	EN	0.051	10%	32%	21%
DCR	Atlantic yellow-nosed albatross	Mollymawk	EN	0.211	92%	8%	0%
TQH	Indian yellow-nosed albatross	Mollymawk	EN	0.201	2%	81%	17%
DIM	Black-browed albatross	Mollymawk	LC	0.035	52%	23%	10%
TQW	Campbell black-browed albatross	Mollymawk	VU/LC	0.130	0%	32%	55%
DCU	Shy albatross	Mollymawk	NT	0.067	4%	37%	59%
TWD	New Zealand white-capped albatross	Mollymawk	NT	0.245	7%	19%	70%
DKS	Salvin's albatross	Mollymawk	VU	0.067	1%	13%	28%
DER	Chatham Island albatross	Mollymawk	VU	0.060	0%	0%	7%
DIC	Grey-headed albatross	Mollymawk	EN	0.036	44%	38%	15%
DSB	Southern Buller's albatross	Mollymawk	NT	0.228	0%	0%	75%
DNB	Northern Buller's albatross	Mollymawk	NT	0.101	0%	0%	16%
PHU	Sooty albatross	Sooty albatross	EN	0.319	52%	48%	0%
PHE	Light-mantled sooty albatross	Sooty albatross	NT	0.064	18%	34%	47%
PCI	Grey petrel	Medium petrel	NT	0.008	27%	21%	26%
PRK	Black petrel	Medium petrel	VU	0.029	0%	0%	20%
PCW	Westland petrel	Medium petrel	EN	0.046	0%	0%	81%
PRO	White-chinned petrel	Medium petrel	VU	0.013	41%	33%	4%
PCN	Spectacled petrel	Medium petrel	VU	0.016	99%	1%	0%

Action 1F

Option summary

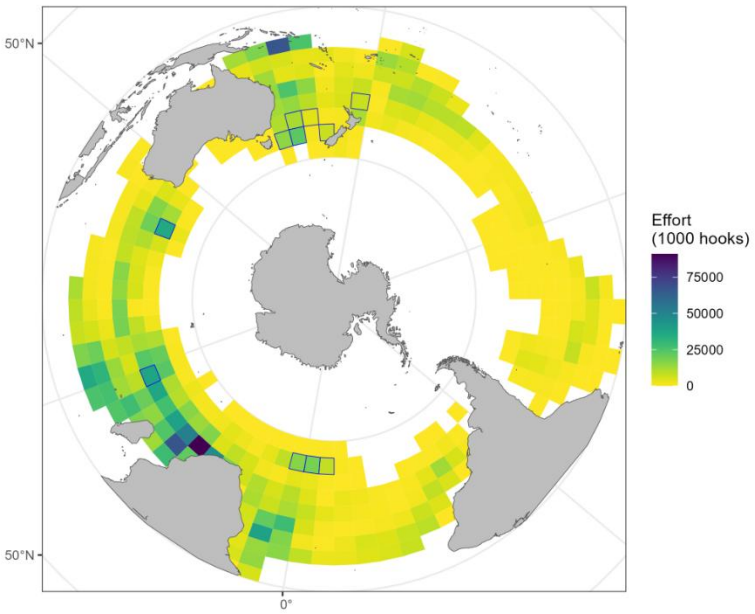
1. High Risk Areas defined as 50% of cumulative standardised risk to Priority Species identified under Action 1D
2. High Risk Areas defined as 60% of cumulative standardised risk to Priority Species identified under Action 1D
3. High Risk Areas defined as 70% of cumulative standardised risk to Priority Species identified under Action 1D

Action 1F
Option 1
Cumulative standarised Relative Mortality
- 50%



Action 1F
Option 1
Cumulative standarised Relative Mortality
- 50%

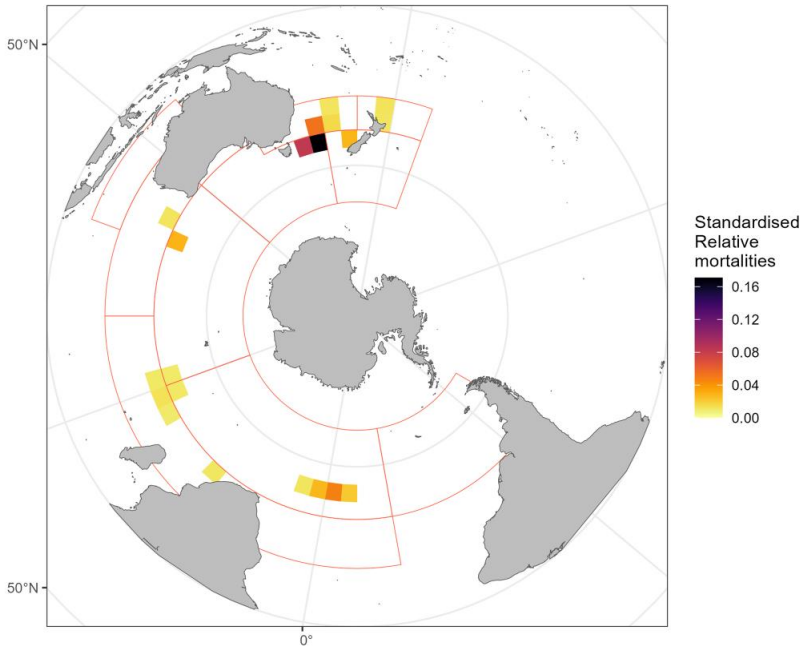
7.9% of contributing CCSBT member effort within areas that overlap with assessed priority albatross and petrel species



Action 1F
Option 1
Cumulative standarised Relative Mortality
- 50%

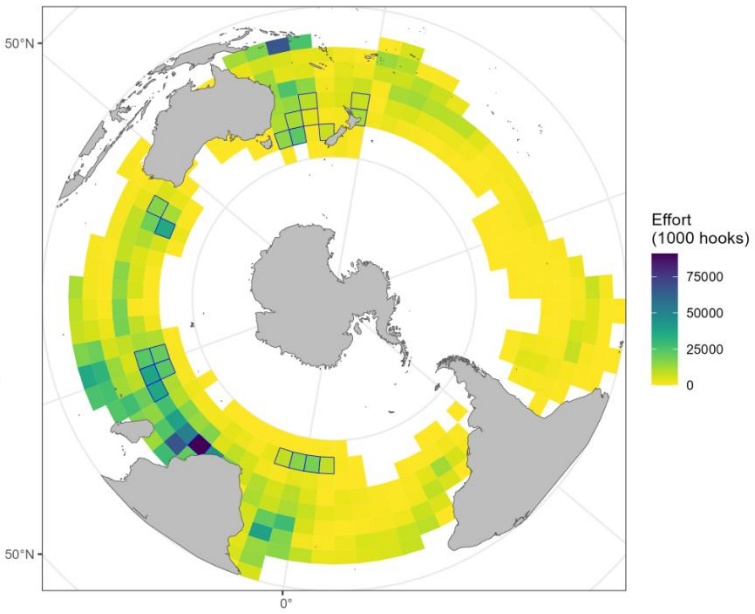
Spp. Code	Common name	Genus	RM Total	RM HRA50	Percent
DIW	Gibson's albatross	Diomedea	0.735	0.621	84%
DBN	Tristan albatross	Diomedea	0.356	0.164	46%
TWD	New Zealand white-capped albatross	Thalassarche	0.245	0.157	64%
DSB	Southern Buller's albatross	Thalassarche	0.228	0.154	67%
PHU	Sooty albatross	Phoebetria	0.319	0.133	42%
DIP	Southern royal albatross	Diomedea	0.142	0.111	78%
TQW	Campbell black-browed albatross	Thalassarche	0.130	0.073	56%
TQH	Indian yellow-nosed albatross	Thalassarche	0.201	0.070	35%
DQS	Antipodean albatross	Diomedea	0.142	0.064	45%
DAM	Amsterdam albatross	Diomedea	0.387	0.059	15%
PHE	Light-mantled sooty albatross	Phoebetria	0.064	0.041	65%
DCU	Shy albatross	Thalassarche	0.067	0.041	62%
DCR	Atlantic yellow-nosed albatross	Thalassarche	0.211	0.036	17%
PCW	Westland petrel	Procellaria	0.046	0.028	61%
DIX	Wandering albatross	Diomedea	0.143	0.021	14%
DIC	Grey-headed albatross	Thalassarche	0.036	0.017	49%
DKS	Salvin's albatross	Thalassarche	0.067	0.017	26%
DIQ	Northern royal albatross	Diomedea	0.051	0.017	33%
DNB	Northern Buller's albatross	Thalassarche	0.101	0.013	13%
DIM	Black-browed albatross	Thalassarche	0.035	0.006	17%
DER	Chatham Island albatross	Thalassarche	0.060	0.004	7%
PCI	Grey petrel	Procellaria	0.008	0.003	39%
PRK	Black petrel	Procellaria	0.029	0.003	10%
PRO	White-chinned petrel	Procellaria	0.013	0.001	8%
PCN	Spectacled petrel	Procellaria	0.016	0.000	0%

Action 1F
Option 2
Cumulative standarised Relative Mortality
- 60%



Action 1F
Option 2
Cumulative standarised Relative Mortality
- 60%

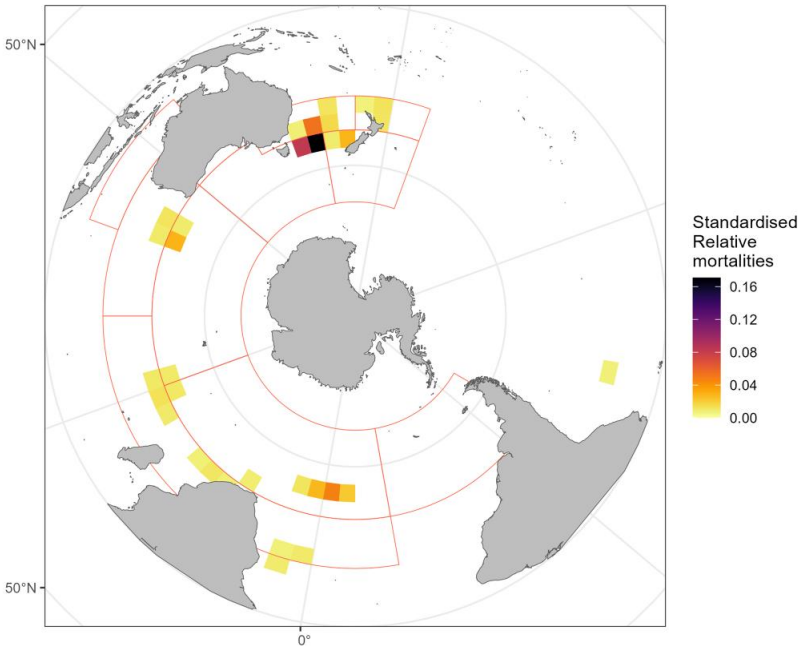
18.2% of contributing CCSBT member effort within areas that overlap with assessed albatross and petrel species



Action 1F
Option 2
Cumulative standarised Relative Mortality
- 60%

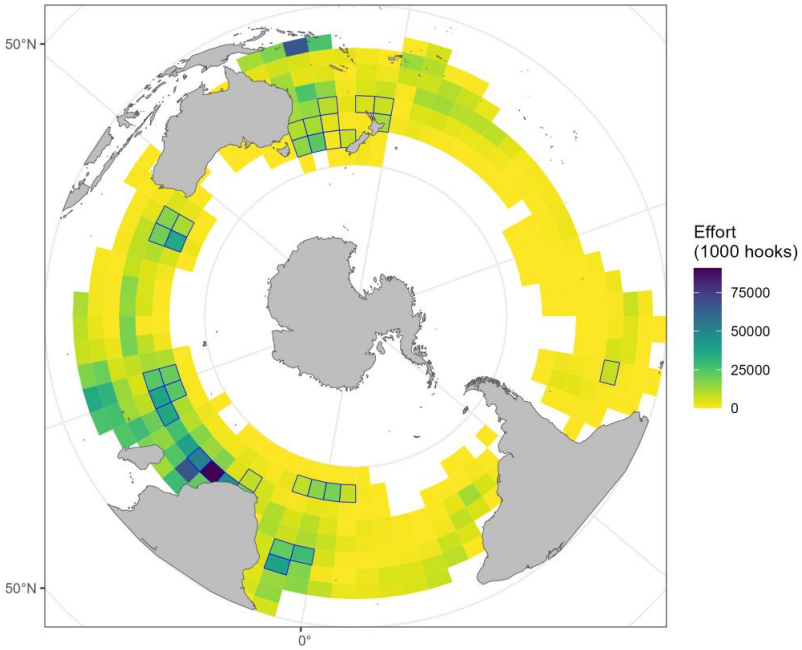
Spp. Code	Common name	Genus	RM Total	RM HRA60	Percent
DIW	Gibson's albatross	Diomedea	0.735	0.648	88%
DBN	Tristan albatross	Diomedea	0.356	0.192	54%
PHU	Sooty albatross	Phoebetria	0.319	0.186	58%
TWD	New Zealand white-capped albatross	Thalassarche	0.245	0.173	71%
DSB	Southern Buller's albatross	Thalassarche	0.228	0.164	72%
DAM	Amsterdam albatross	Diomedea	0.387	0.153	39%
DIP	Southern royal albatross	Diomedea	0.142	0.118	83%
TQH	Indian yellow-nosed albatross	Thalassarche	0.201	0.096	48%
TQW	Campbell black-browed albatross	Thalassarche	0.130	0.088	68%
DQS	Antipodean albatross	Diomedea	0.142	0.080	56%
DIX	Wandering albatross	Diomedea	0.143	0.046	32%
DCU	Shy albatross	Thalassarche	0.067	0.046	68%
PHE	Light-mantled sooty albatross	Phoebetria	0.064	0.045	71%
DCR	Atlantic yellow-nosed albatross	Thalassarche	0.211	0.041	19%
PCW	Westland petrel	Procellaria	0.046	0.035	75%
DIQ	Northern royal albatross	Diomedea	0.051	0.028	54%
DKS	Salvin's albatross	Thalassarche	0.067	0.025	38%
DIC	Grey-headed albatross	Thalassarche	0.036	0.021	58%
DNB	Northern Buller's albatross	Thalassarche	0.101	0.020	20%
DIM	Black-browed albatross	Thalassarche	0.035	0.008	23%
PRK	Black petrel	Procellaria	0.029	0.007	25%
DER	Chatham Island albatross	Thalassarche	0.060	0.007	12%
PCI	Grey petrel	Procellaria	0.008	0.005	62%
PRO	White-chinned petrel	Procellaria	0.013	0.002	17%
PCN	Spectacled petrel	Procellaria	0.016	0.000	1%

Action 1F
Option 3
Cumulative standarised
Relative Mortality
- 70%



Action 1F
Option 3
Cumulative standarised
Relative Mortality
- 70%

29.0% of contributing CCSBT member effort within areas that overlap with assessed albatross and petrel species



Action 1F
Option 3
Cumulative standarised Relative Mortality
- 70%

Spp. Code	Common name	Genus	RM Total	RM HRA70	Percent
DIW	Gibson's albatross	Diomedea	0.735	0.684	93%
DBN	Tristan albatross	Diomedea	0.356	0.237	67%
PHU	Sooty albatross	Phoebetria	0.319	0.204	64%
TWD	New Zealand white-capped albatross	Thalassarche	0.245	0.200	82%
DSB	Southern Buller's albatross	Thalassarche	0.228	0.183	80%
DAM	Amsterdam albatross	Diomedea	0.387	0.177	46%
TQH	Indian yellow-nosed albatross	Thalassarche	0.201	0.134	67%
DIP	Southern royal albatross	Diomedea	0.142	0.125	88%
DCR	Atlantic yellow-nosed albatross	Thalassarche	0.211	0.109	51%
TQW	Campbell black-browed albatross	Thalassarche	0.130	0.105	80%
DQS	Antipodean albatross	Diomedea	0.142	0.089	62%
DIX	Wandering albatross	Diomedea	0.143	0.058	41%
DCU	Shy albatross	Thalassarche	0.067	0.052	78%
PHE	Light-mantled sooty albatross	Phoebetria	0.064	0.048	75%
PCW	Westland petrel	Procellaria	0.046	0.038	83%
DNB	Northern Buller's albatross	Thalassarche	0.101	0.036	36%
DKS	Salvin's albatross	Thalassarche	0.067	0.032	48%
DIQ	Northern royal albatross	Diomedea	0.051	0.031	60%
DIC	Grey-headed albatross	Thalassarche	0.036	0.022	62%
DIM	Black-browed albatross	Thalassarche	0.035	0.014	41%
DER	Chatham Island albatross	Thalassarche	0.060	0.013	23%
PRK	Black petrel	Procellaria	0.029	0.010	35%
PRO	White-chinned petrel	Procellaria	0.013	0.006	43%
PCI	Grey petrel	Procellaria	0.008	0.005	68%
PCN	Spectacled petrel	Procellaria	0.016	0.000	2%

Code



High Risk Areas - ERSWG.r