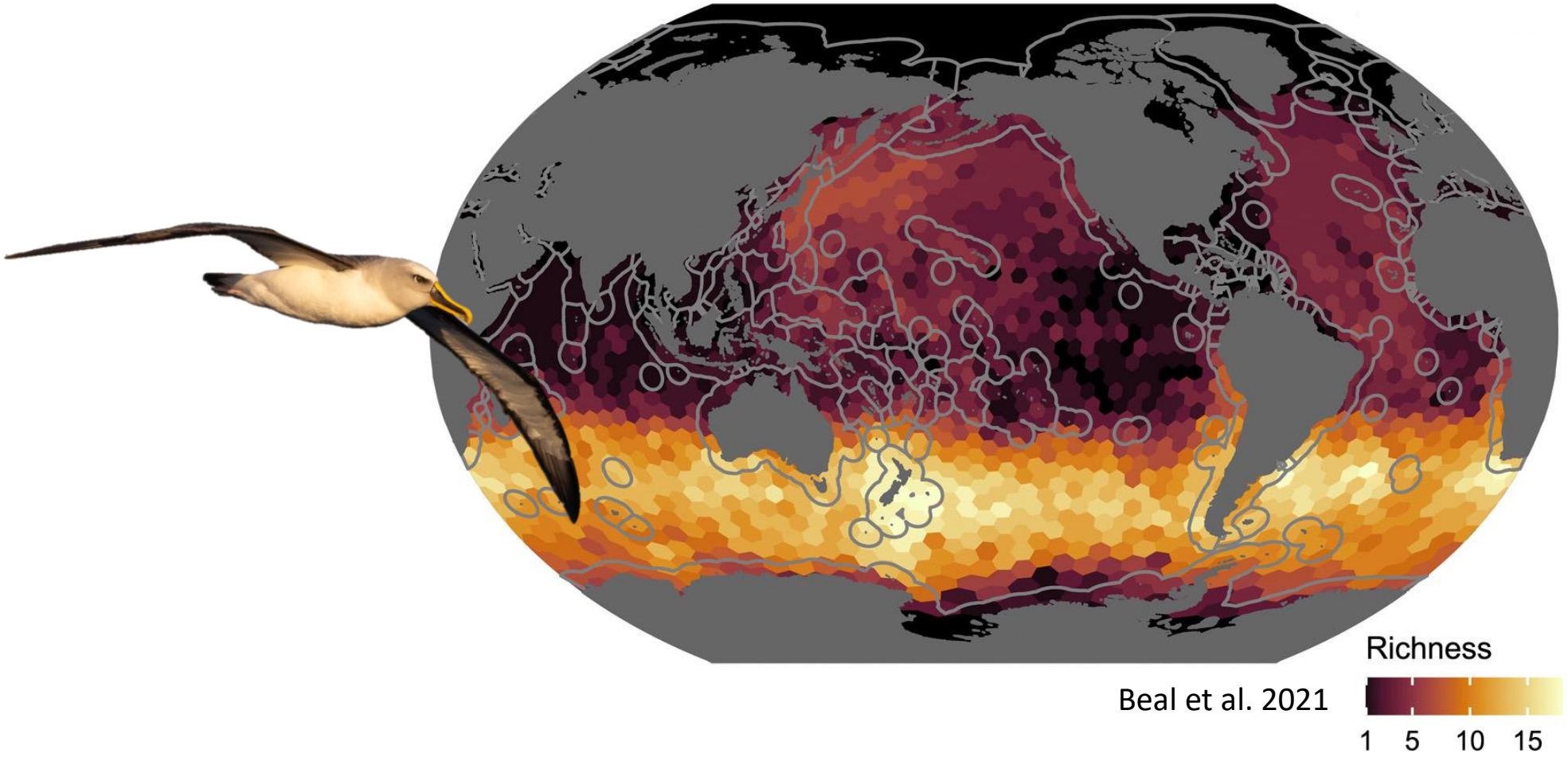
# Pelagic longline bycatch impacts on seabirds:
## a brief overview and introduction for the review of WCPFC CMM 2018-03



20 Feb 2024

# WCPFC holds responsibility for seabirds globally




Beal et al. 2021

For instance, 77% (17/22) albatross species depend on the WCPO

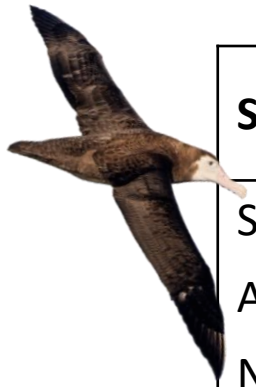
# Life history renders seabirds highly vulnerable

Seabirds, albatrosses and petrels in particular, exhibit:

- Long life spans (>70 years)
- Delayed maturity (longest generation time of any bird; 6-25 years)
- Low reproductive rates (<1 egg per year)
- Are opportunistic foragers (i.e., they are attracted to fishing activities)

Warham 1991

# Vulnerable seabird populations in the WCPO continue to decline



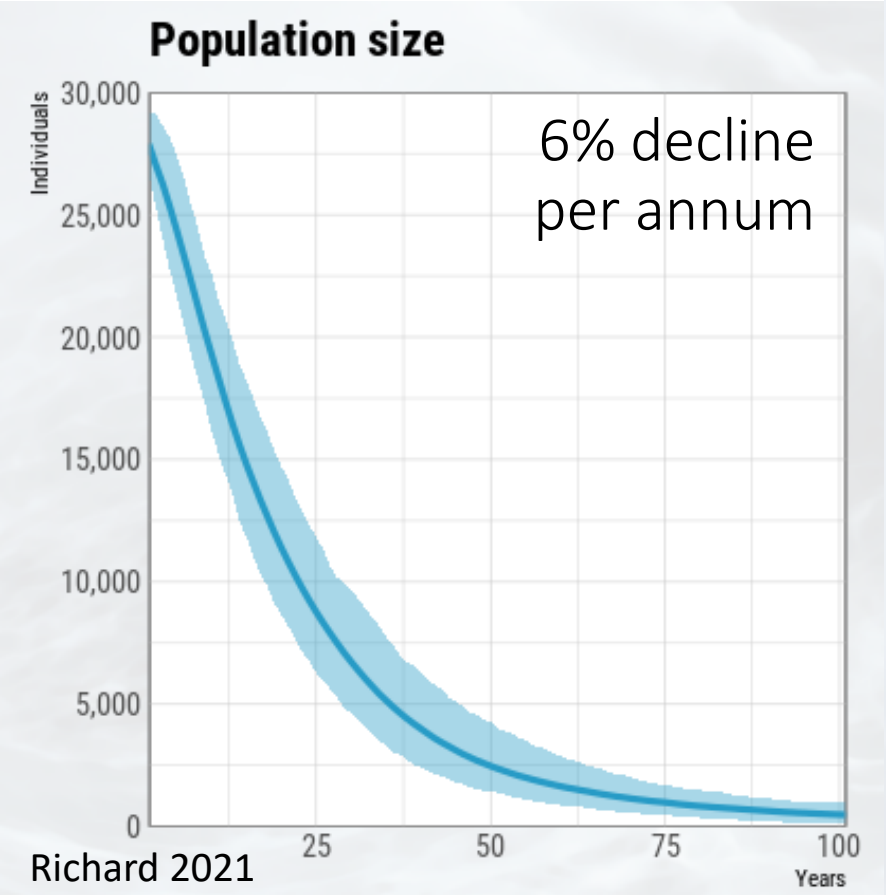
| Species | IUCN status | Breeds in WCPO | Forages in WCPO | N breeding pairs | Trend |
|---|---|---|---|---|---|
| Southern Royal Albatross | (CR) | ✓ | ✓ | 6,347 | ↓ |
| Antipodean Albatross | EN | ✓ | ✓ | 8,654 | ↓ |
| Northern Royal Albatross | EN | ✓ | ✓ | 4,261 | ↔ |
| Indian Yellow-nosed Albatross | EN | | ✓ | 33,988 | ↓ |
| Grey-headed Albatross | EN | ✓ | ✓ | 80,633 | ↓ |
| Westland Petrel | EN | ✓ | ✓ | 6,223 | ↔ |
| Wandering Albatross | VU | ✓ | ✓ | 10,072 | ↓ |
| Short-tailed Albatross | VU | ✓ | ✓ | 889 | ↑ |
| Salvin's Albatross | VU | ✓ | ✓ | 58,563 | ↓ |
| White-chinned Petrel | VU | ✓ | ✓ | 1,317,278 | ↓ |
| Black Petrel | VU | ✓ | ✓ | 5,456 | ↔ |

Updated extract of SC18-EB-WP-03

WCPFC19 noted a global decline in specific ACAP seabird population trends, which are vulnerable to threats posed by longline fisheries in the WCPO

# Of particular concern: Antipodean Albatross

Global extinction predicted in three generations




Richard 2021

# Of particular concern: Southern Royal Albatross

92% decline predicted in three generations

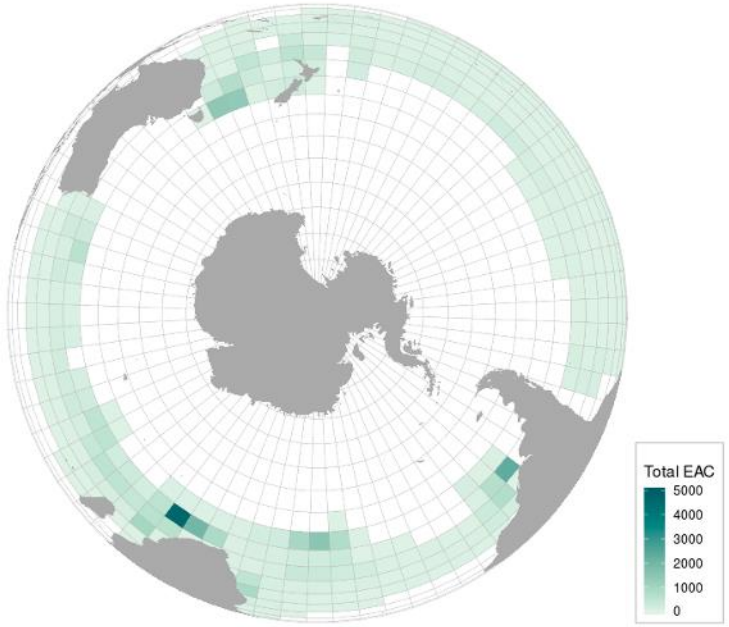
DOC in prep.

# Pelagic longline mortality estimates

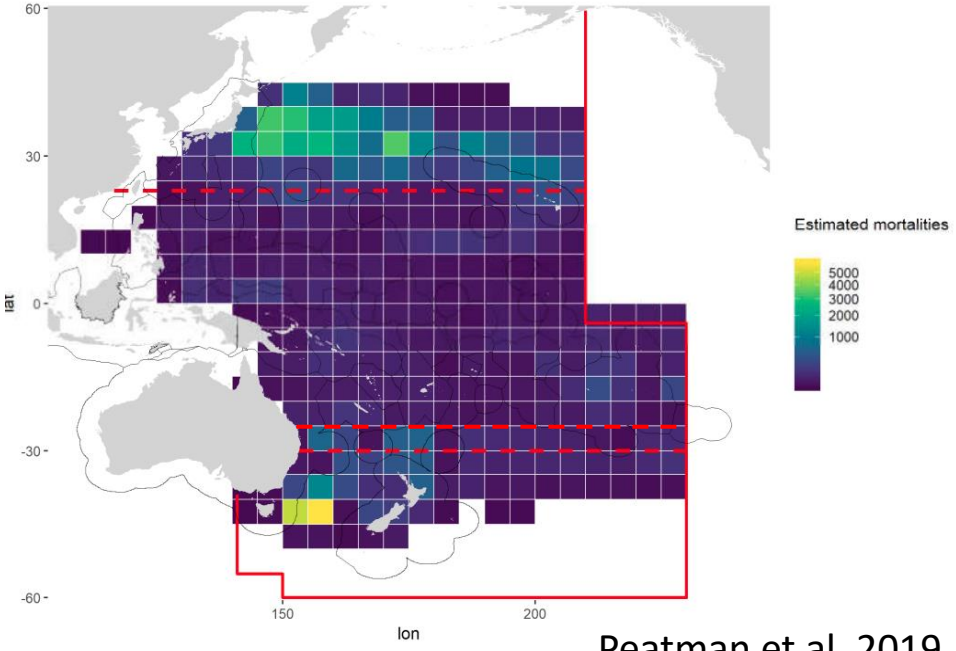
- Globally: 50,000-75,000 seabirds annually (Anderson et al. 2011)*
- Southern Hemisphere: 39,000-43,000 petrels and albatrosses annually (JP, SAF, AUS & NZ data only; Abraham et al. 2019)*
- Southern Hemisphere: 12,000-25,000 petrels and albatrosses annually (NZ data only; Edwards et al. 2023 – multi-country update in progress)*
- WCPFC: 11,000-25,000 seabirds annually (Peatman et al. 2019)*

## WCPFC plays a key role in addressing global seabird bycatch

*These estimates have a range of varying caveats and shortcomings, and all are subject to poor observer coverage, and sometimes limited tracking data, challenging inferences.

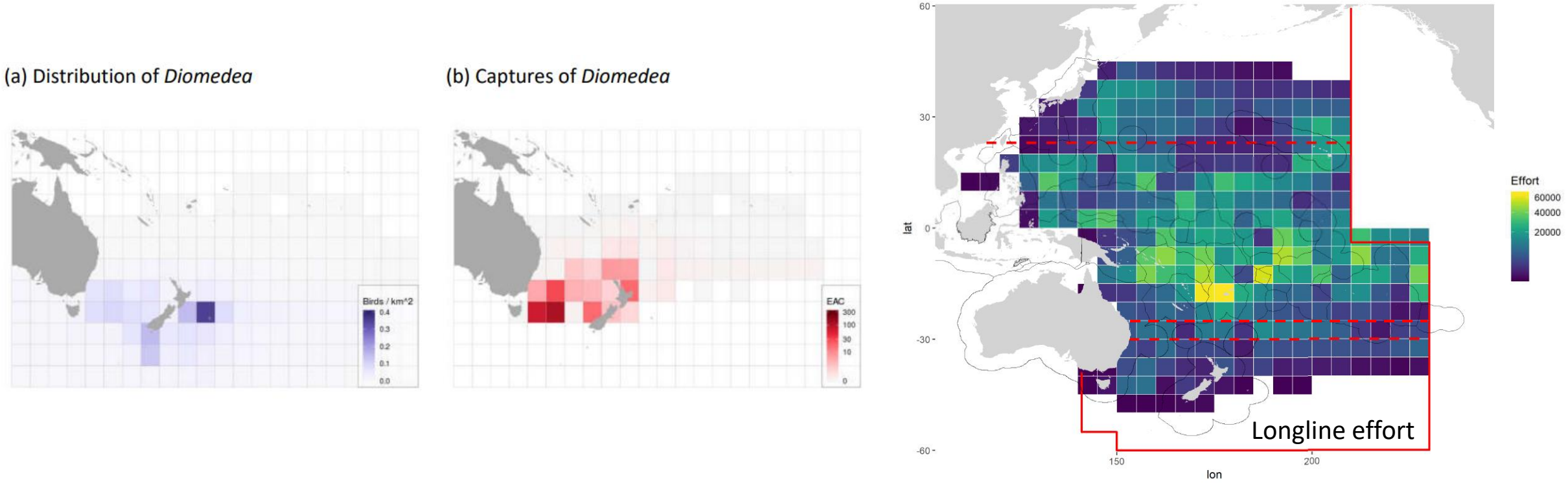



Abraham et al. 2019




Peatman et al. 2019

# WCPFC plays a key role in addressing global seabird bycatch – particularly in the Southern Ocean




Seabird bycatch distribution is influenced by both seabird distribution and fishing effort

*These estimates have a range of caveats and shortcomings, and all are subject to poor observer coverage, and sometimes limited tracking data, challenging inferences.

Peatman et al. 2019

# Impact & risk estimates

A recent Southern Hemisphere Risk Assessment using NZ data only, highlighted 17 WCPO species as potentially bycaught beyond sustainable levels*

These species represent the majority (81%) of “at-risk” species

(Note a multi-country update of this modelling effort is in process)

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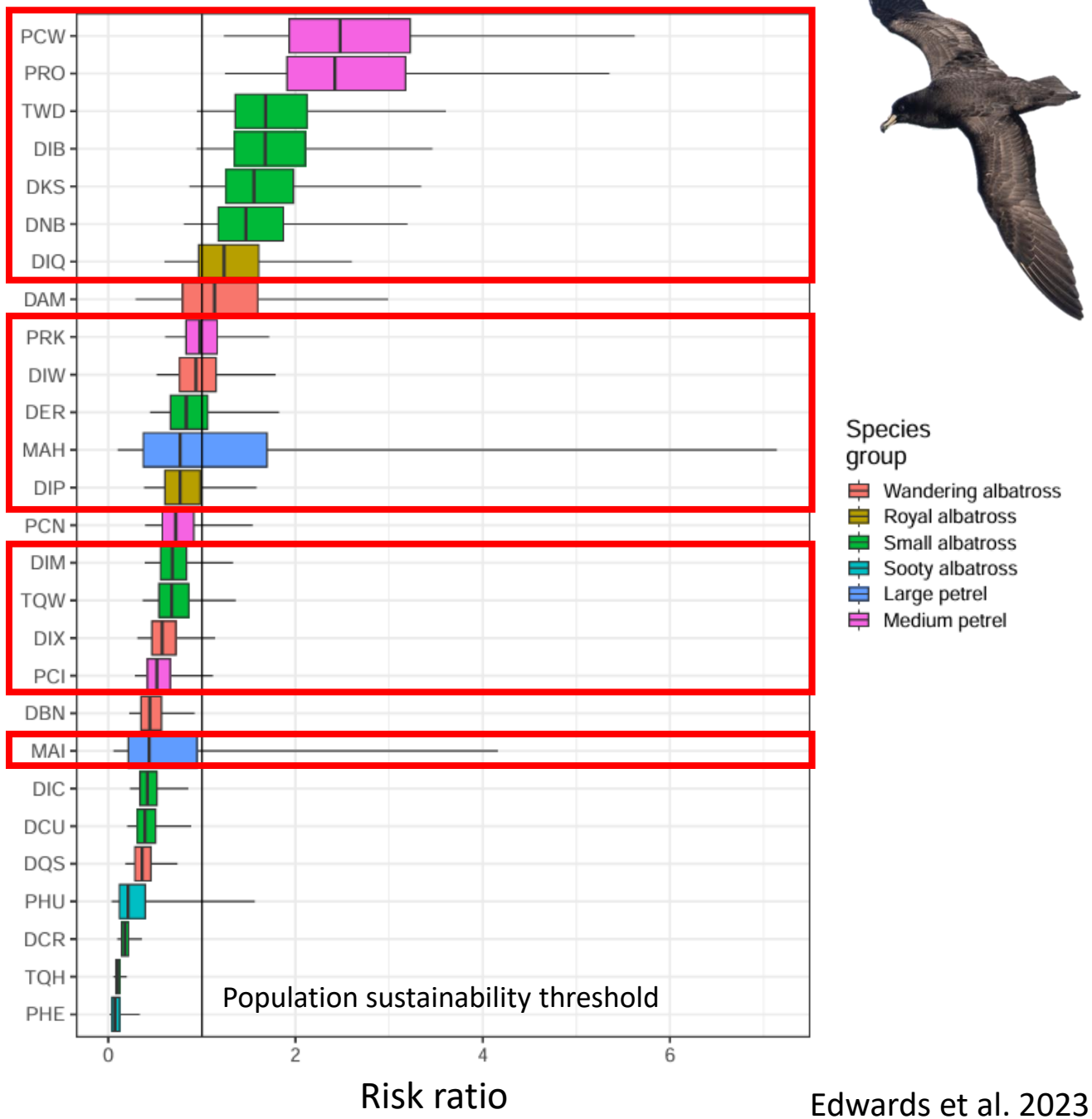



Edwards et al. 2023

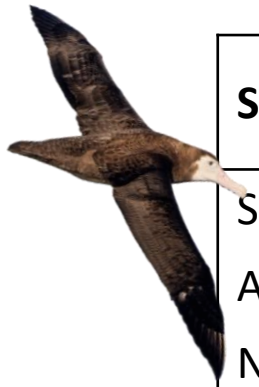
# Other threats

Unlike other Ocean basins, terrestrial threats to vulnerable seabirds in the WCPO have largely been addressed:

- ~70% of ACAP breeding sites in the WCPO are free of invasive species (~30% thanks to intensive management)
- Harvesting by humans (e.g. for feathers) has stopped

There is no current direct evidence for climate change driving population declines in the WCPO (yet)

# Vulnerable seabird populations in the WCPO continue to decline



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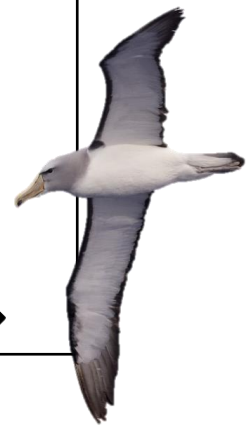
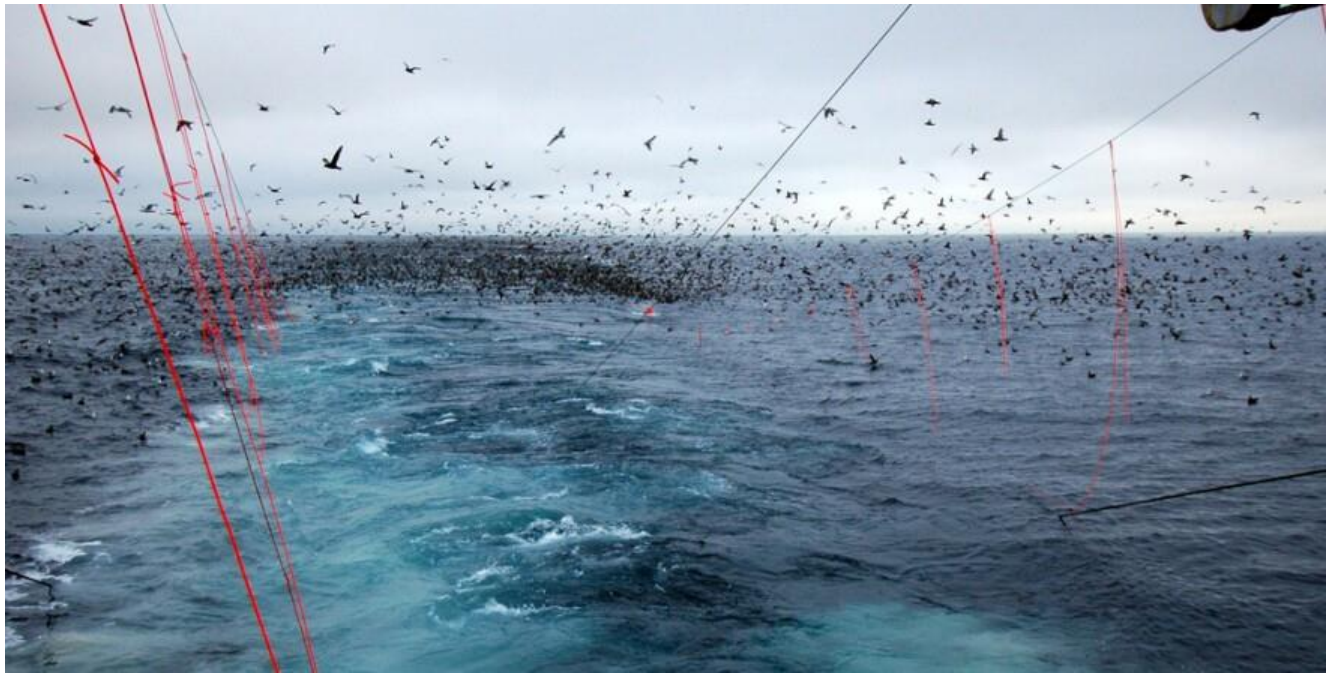
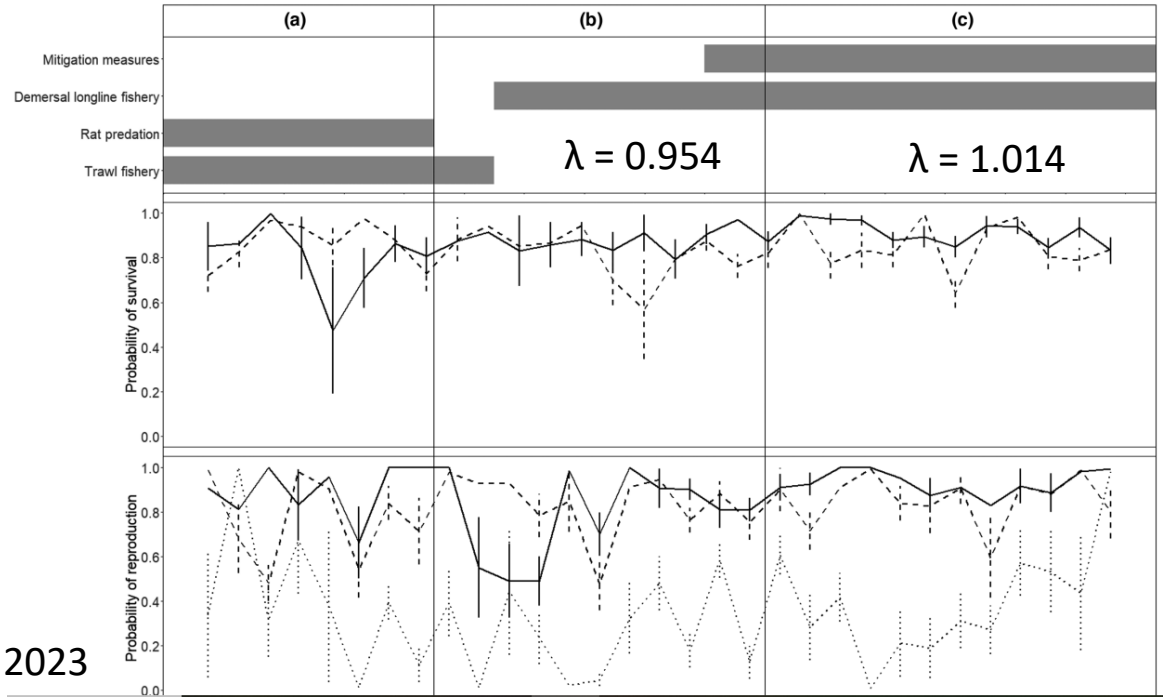


Considering all lines of evidence: observed population declines are most likely driven by bycatch at unsustainable levels in pelagic longline fisheries

# Proven solutions exist

- A variety of mitigation methods have been proven to reduce bycatch to negligible levels.
- These mitigation methods have been developed over decades.
- Effective use of proven mitigation methods can allow seabird populations to recover.






Dasnon et al. 2023

# Review of WCPFC CMM 2018-03

**Purpose:**

*"To ensure that effective mitigation methods are required and applied across the Convention Area where there is bycatch risk to vulnerable seabirds from longline fishing."*


Looking forward
to working with you

# References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