

New Zealand seabird conservation and fisheries bycatch

Background material for New Zealand's APEC OFWG Seabird Initiative, July 2021



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Seabird biology

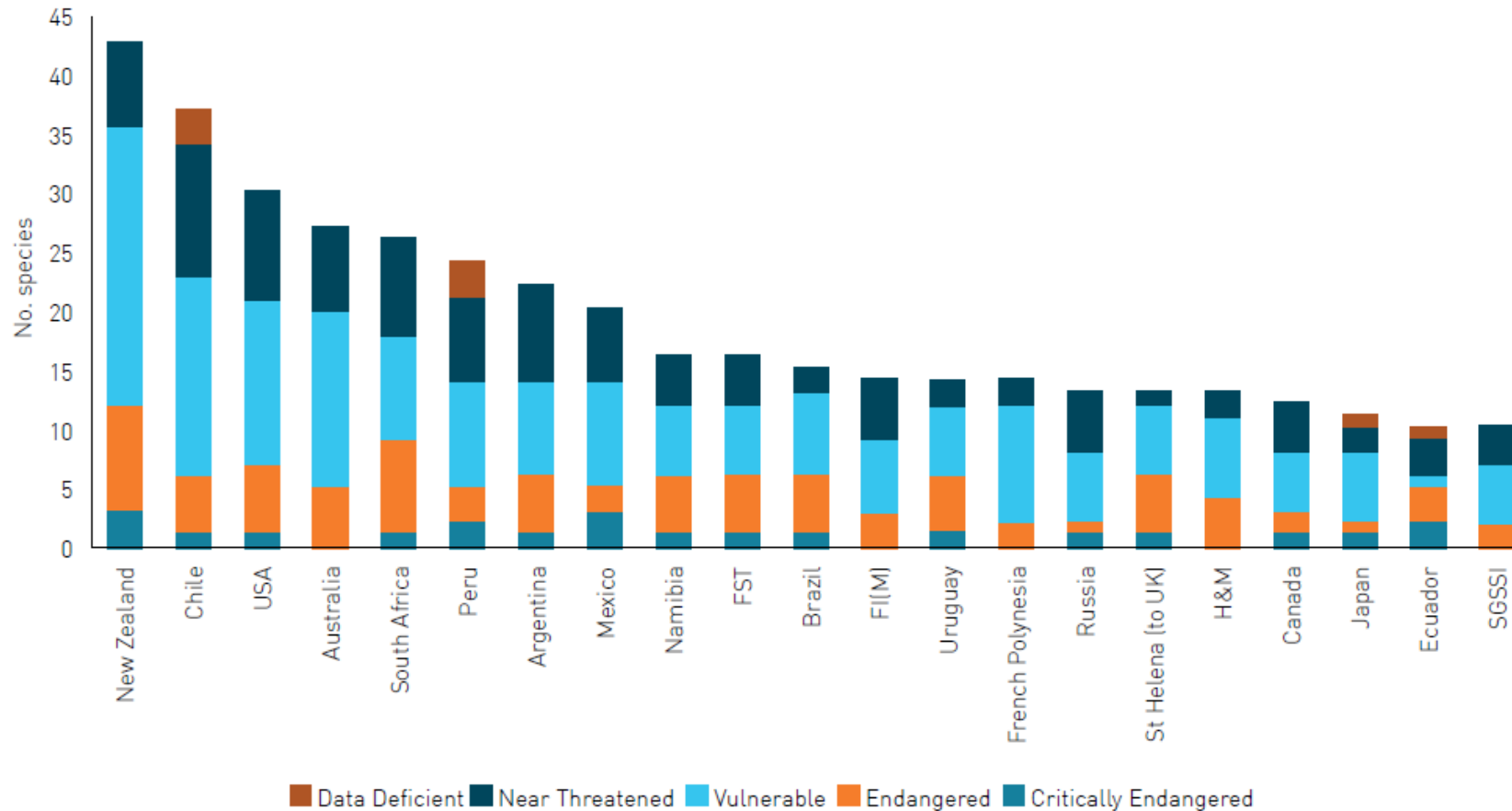
- Seabirds and fishing boats overlap
- 145 seabird species in New Zealand
- 95 breed here, more than a third are endemic
 - Wide range of species
 - Differing life history traits
 - Seabirds forage widely



Susceptibility to a range of threats

- Many threats to the conservation status of seabirds
- Wide range of foraging and reproductive behaviours
- Differences affect the threats they face from fishing operations
- The life history traits of seabirds make them susceptible to population declines, and extinction
 - Long lived
 - Slow to reach reproductive maturity
 - Low fecundity
 - Often limited to one or a few breeding sites

Figure 1: The number of breeding and resident seabird species in all International Union for the Conservation of Nature threat-ranking categories, except least concern,⁶ 2012



- APEC Economies constitute five of the six with the highest number of threatened seabirds
- Seabirds link our economies and their conservation is a shared interest

Cause for conservation concern

- Agreement on the Conservation of Albatrosses and Petrels (ACAP)
 - In 2019 ACAP's Advisory Committee declared that a conservation crisis continues to be faced by its 31 listed species, with thousands of albatrosses, petrels and shearwaters dying every year as a result of fisheries operations.
- WCPFC Project 68
 - Estimated annual mortalities of seabirds in WCPFC longline and purse seine fisheries from 2015 to 2018 were between 13,000 and 19,000 individuals (95 % CI 10,800 to 25,000).
 - Purse-seine bycatch was negligible
 - Two-thirds of the estimated mortalities north of 20°N, one-third south of 30 °N
 - Highest estimated captures white-capped albatross, Buller's albatross and white-chinned petrel
 - 'Cryptic' mortality not included
 - And limited or no observer data so mortality estimates were not calculated for some fleets and areas

Cause for conservation concern

- Report of the Final Global Seabird Bycatch Assessment Workshop
 - Birdlife led FAO-funded global initiative
 - Estimated 30,000-40,000 albatrosses and petrels caught annually in Southern Hemisphere pelagic longline fisheries
 - Results indicate several areas of high seabird bycatch including SW Pacific
 - The best information was used, but bias and uncertainty exist

New Zealand seabirds most frequently captured outside of our waters

- Antipodean wandering albatross
- Gibson wandering albatross
- Westland petrel
- Black petrel
- White-capped albatross
- Buller's albatross

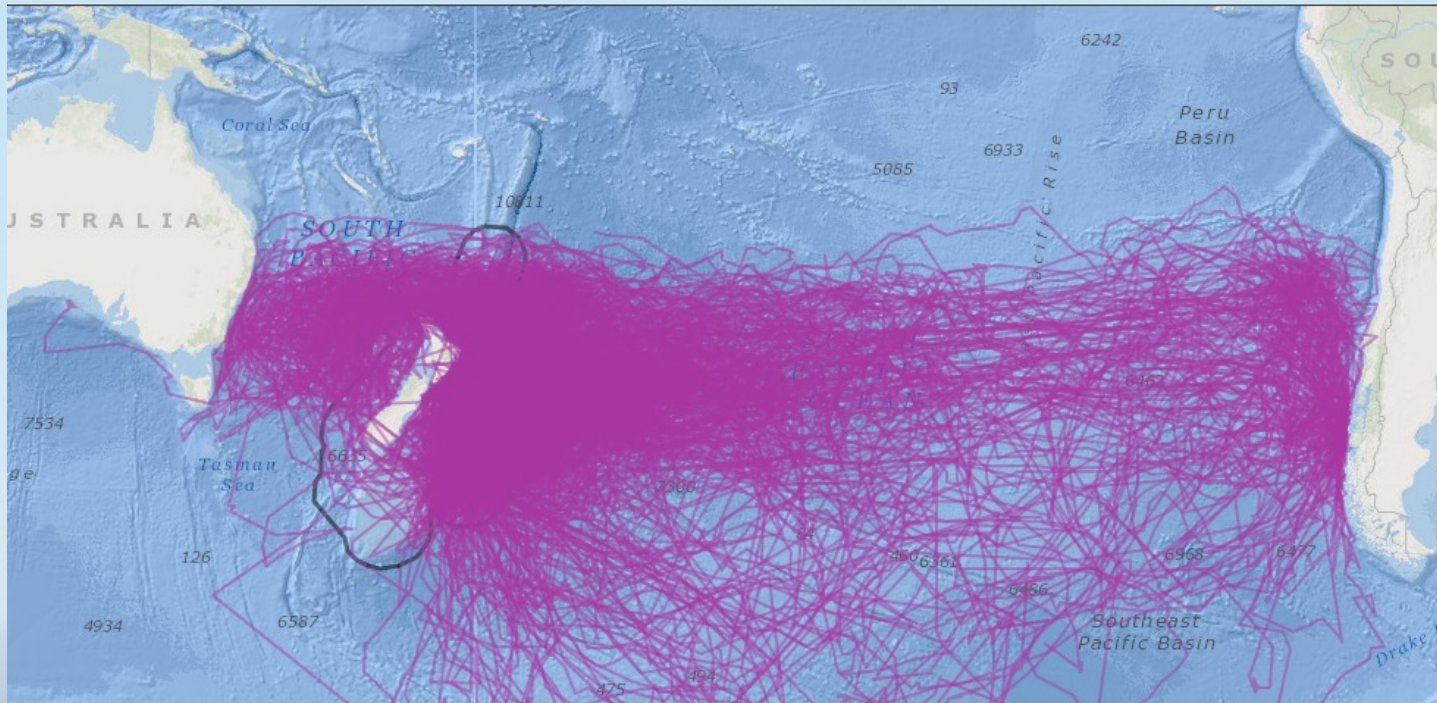


highly vulnerable species

- Nationally Critical
- In decline since 2005
- Population declining at 5% per annum
- Female survivorship has declined from 95% to 88%
- No evidence female survival is improving
- Birds forage widely over the high seas where they overlap fishing effort
- Breeding site is free of introduced mammalian predators



Flight paths of tracked Antipodean albatross since 2019



Westland petrel

Procellaria westlandica

- Naturally Uncommon
- Single breeding site
- Breeding site is not free of introduced mammalian predators
- Caught in longline and trawl fisheries
- Females more bycaught than males
- Climate change exacerbating conservation risk



Black petrel

Procellaria parkinsoni

- Nationally Vulnerable
- Most population at single breeding site
- Translocation to a second breeding site have not increased the breeding population
- Main breeding site is not free of introduced mammalian predators
- Caught in longline and trawl fisheries



White-capped albatross

Thalassarche cauta steadi

- Declining
- Captured in longline and trawl fisheries
- Almost all breeding birds in the Auckland Islands
- Recent survival estimates worrying
- Most frequently fisheries caught albatross in South Africa
- Main breeding site is free of introduced mammalian predators



Buller's albatross

Thalassarche bulleri bulleri and *Thalassarche b. platei*

- Naturally uncommon
- Longline and trawl mortalities
- Demographic studies 1992 - 2017
- Breeding population peaked 2005 - 2006
- Since then marked annual variation
- Breeding sites is free of introduced mammalian predators



A large flock of albatrosses is captured in flight over a vast, deep blue ocean. The birds, with their white heads and necks and dark wings, are scattered across the frame, some in sharp focus and others blurred in the distance. The sky above is filled with soft, grey clouds, suggesting an overcast day. The overall scene conveys a sense of natural beauty and the power of a large colony.

Thank you