POP2022-01

TĀKOKETAI BLACK PETREL POPULATION MONITORING

Captures at sea

THE SEABIRD TRUST

FINAL REPORT – May 2025

This report has been prepared by Edin Whitehead and Chris Gaskin (The Seabird Trust) for the Department of Conservation's Conservation Services Programme (CSP), final report for POP2022-01 Black Petrel Population Monitoring, Captures at Sea.

15 May 2025

Figure 1. Motukokako and Cape Brett at sunrise, 20 February 2025. Photo: Chris Gaskin

Cover image: Black petrel after a net was fired. The petrels are generally undisturbed by the person with the net gun. Photo: Edin Whitehead.

Back cover image: Black petrel and golden late afternoon light. Photo: Edin Whitehead.

Introduction

Context

The CSP Seabird Medium Term Research Plan (CSP Seabird Plan) outlines a five-year research programme to deliver on the seabird population research component of CSP. It is targeted at addressing relevant CSP Objectives (as described in the CSP Strategic Statement) and National Plan of Action – Seabirds Objectives. This project extends on past demographic work funded by commercial fisheries levies and DOC/MPI since 1996.

Black petrels are the species at highest risk from commercial fisheries in northern Aotearoa New Zealand. Continuing research on this species is necessary to gather current rates of adult mortality, breeding success, juvenile survival and recruitment until suitable mitigation methods significantly reduce the capture risk to this species.

This at-sea capture project continues work started in 2022 to look at survival and return rates of juvenile black petrels not visiting the main study areas on Aotea/Great Barrier Island. Capture-mark-recapture of black petrels in the Hauraki Gulf will also provide information from a random sample of birds away from the study colonies to help estimate current population size of this species.

The main objective for the 2024-25 season was to capture black petrels at-sea to determine the proportions of unbanded birds versus banded birds. This information will be used to assess if apparent low juvenile survival is biased by dispersal away from study colonies. Information collected from marked versus unmarked birds in this study will be analysed in a separate project to estimate the overall population size of black petrels.

This report

This final report provides the results of captures of black petrels in 2025. All the captures this year were made using the net gun we have developed for live capture of seabirds at sea. The results are presented in summary tables within the main text and all the raw data collected in the field are in Appendix 1.

Methods

Based on capture efforts made in 2023-24, trips were focused on the latter part of the season (January-April), rather than early summer, as catch-rates in December 2023 were too low to be worth repeating. Additional changes this season included working in more offshore areas (200-250m bathymetric contour) to broaden the search range for birds. We targeted areas that we knew would yield a good return of birds within the budget constraints of the vessel charter. Otherwise, methods followed those described in our 2024 POP2022-01 report (Gaskin & Whitehead 2024).

Teams of four to six experienced personnel worked through daylight hours to capture, process and release as many birds as possible. Roles (catching, processing) were split to ensure efficient and safe work throughout the process. While repositioning the vessel to different capture sites and upon arrival at a new capture site, additional data was collected (bird species presence, eBird counts, photographs of banded birds). During capture sessions, the number of other black petrels in the vicinity was recorded alongside capture data.

Capture methods

All captures were made using the net gun. The net gun continues to be highly effective and versatile in all conditions. Birds could be captured close to the two vessels used (from the stern of one vessel, from the high starboard side on the other). Birds could also be captured on the wing, and on a few occasions overhead. Also, individuals (and pairs of black petrels) could be targeted from amongst other species, thus reducing the chance of bycatch. That is, other species or birds previously captured in the same session as identified by forehead Twink/White-out paint markings. We used two nets using dyneema braid (1.7m X 1.7m and 3m X 3m) made by Milligan Trawls, Waipu,

Figure 2. Capture of a black petrel from the high starboard side of *Manawanui.* Screenshot from video: Karen Baird.

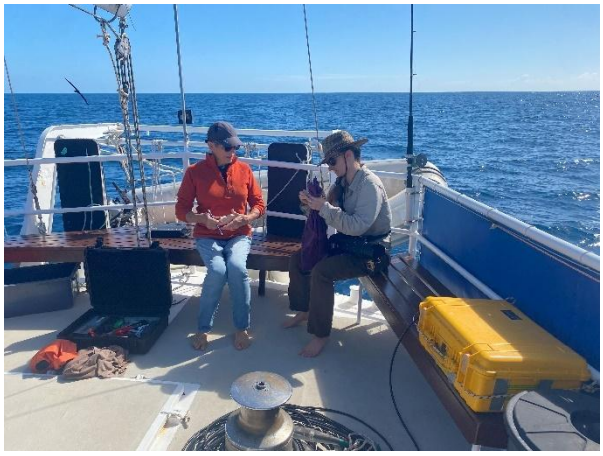
It is important to note we attempted to capture all black petrels that came within range of the net gun. The only birds that were deliberately not targeted were those that had fresh whiteout (twink) markings on their heads, indicating that they had been captured previously

in the same trip. Capture sessions continued until there were no longer any unmarked black petrels to capture that would come within range of the net gun.

Petrel processing

All the petrels were processed by three Level 3 banders (Edin Whitehead, Cathy Mitchell, Karen Baird) and two Level 2 banders (Ben Gordon and Megan Young). The dyneema nets once again proved to be excellent in terms of the ease of removing the birds after capture, a big improvement from the mist net-type nets used earlier. Birds were extracted from nets and placed in dark handling bags for processing. New bands were applied to previously unbanded birds, already-present bands read and checked, key morphometric measurements and weight taken, and breeding status (i.e., brood patch) checked.



Figures 3 -6. Bird processing. Photos: Karen Baird, Chris Gaskin.

Blood & feather sampling

To maximise data return from the at-sea capturing, the possibility of blood and feather sampling for future analyses (e.g. population genetics, dietary analyses, heavy metal contamination, hormonal/endocrine analyses) was raised at the beginning of the season and subsequently added to the work program. Feathers were collected from 62 birds during the January and March trips, and 16 blood samples also collected during the March trip. The birds sampled are noted in the data table in Appendix 1. Feathers are stored in individually labelled plastic Ziplock bags. Blood samples are stored in 99% ethanol and refrigerated at -4°C. Samples will be held by The Seabird Trust (at the University of Auckland, contact Edin Whitehead) until required for analyses.

Post release

Most birds flew away strongly after release. This season we had two captured birds vomit a large amount of proventricular oil while being weighed in bird bags during the April trip. One bird was able to be adequately cleaned for release on the boat and was then released at the capture site (held for ~30 minutes total). The other bird (H40650) was oiled to the extent that release at-sea was impossible, due to compromised waterproofing. This bird was held in a cardboard box until the end of the trip and taken to the Whangarei Bird Recovery Centre. The bird was held at the centre over a weekend (admitted Friday, released Tuesday) for re-waterproofing. The bird was then released at Ocean Beach, Bream Head, and flew away strongly.

Results

Four capture trips were made between January and April 2025. The following sections detail capture and recapture rates, and other relevant trip metrics.

Totals summary

Table 1: Combined 2024 and 2025 capture and recapture metrics with project totals, and 2025 capture metrics (processing time, multi-capture nets).

2024 Captures	268
2025 Captures	351
TOTAL CAPTURES	**619**
2024 recaptures	11
2025 recaptures	25
TOTAL RECAPTURES	**36**
2025 Capture metrics:	
Mean (±standard deviation) processing time from capture to release (mins)	8.2 (±3.1)
Number of nets with multiple captures (2-4 individuals)	39

Trip effort

A total of ten days were spent on the water in the 2025 season, working throughout daylight hours (decreasing across the season). Trip metrics are provided in table 2.

Table 2: Trip effort metrics for black petrel at-sea captures 2025

Dates	Total trip captures	Total chumming effort (hrs)	Capture rate (Captures/hr)
9-11 January 2025	100	16.7	5.99
20-21 February 2025	107	12.17	8.79
13-14 March 2025	58	7.02	8.26
9-11 April 2025	86	8.93	9.63
TOTALS	**351**	**44.82**	**7.83**

Recaptures

A total of 25 previously banded individuals were recaptured at sea in the 2025 season. Recapture rates for each trip varied between 3% and 15% (Jan 3/100, Feb 6/107, March 3/58, April 13/86). All known details for the recaptured birds are provided in Table 3.

Table 3: Bird details for previously banded black petrels recaptured at sea in 2025.

Band #	History	Recapture Date	Location coordinates	Current age	Recapture information
H39501	GBI, banded as adult in 2015 (in study burrow)	9/01/2025	-35.70807 175.30323	15+	male, breeder, in study burrow, not caught at colony since at sea capture
H36917	GBI, banded as chick in 2012 (in study burrow)	9/01/2025	-35.70807 175.30323	13	not caught at colony to date
H36166	GBI, banded as adult in 2007 (in study burrow)	9/01/2025	-35.70807 175.30323	26+	male, breeder, in study burrow, not caught at colony since at sea capture
H43352	GBI, banded as chick in 2018 (in study burrow)	20/02/2025	-35.16844 174.54241	7	non-breeder, in study burrow, not caught in colony since at sea capture
H35270	GBI, banded as adult in 2010 (in study burrow)	20/02/2025	-35.25501 174.62016	20+	non-breeder, in study burrow, not caught in colony since at sea capture
H45444	at sea capture (banded 7 March 2024)	20/02/2025	-35.33703 174.79798	3+	At sea captures only
H45907	at sea capture (banded 17 March 2022)	21/02/2025	-35.05767 174.42273	5+	At sea captures only
H44532	GBI, banded as adult in 2022 (random burrow)	21/02/2025	-35.05767 174.42273	8+	-
H45094	GBI, banded as adult in 2023 (on surface)	21/02/2025	-35.05767 174.42273	7+	non-breeder, in study burrow, not caught in colony since at sea capture
H45676	GBI, banded as adult in 2023 (in study burrow)	13/03/2025	-34.89961 174.27273	7+	breeder, in study burrow, at colony in current 2024/25 season
H33451	GBI, banded as adult in 2005 (in study burrow)	13/03/2025	-34.94206 174.17890	28+	non-breeder, in study burrow, at colony in current 2024/25 season
H43950	at sea capture (banded 4 April 2024)	14/03/2025	-35.05243 174.28765	3+	At sea captures only

H44567	GBI, banded as adult in 2022 (in study burrow)	9/04/2025	-34.95082 174.21277	11+	-
H40195	LBI, banded as chick in 2016 (random burrow)	9/04/2025	-34.95082 174.21277	9	not caught at colony to date
H43987	at sea capture (banded 5 April 2024)	9/04/2025	-34.94652 174.20385	3+	At sea captures only
H38647	GBI, banded as adult in 2013 (in study burrow)	9/04/2025	-34.94652 174.20385	17+	-
H44482	GBI, banded as adult in 2021 (in study burrow)	9/04/2025	-34.92613 174.18580	9+	non-breeder, on surface, not caught in colony since at sea capture
H40559	At sea capture (banded 20 Feb 2025)	9/04/2025	-34.92613 174.18580	2+	At sea captures only
H36945	GBI, banded as chick in 2012 (in study burrow)	9/04/2025	-34.92613 174.18580	13	not caught at colony to date
H40798	at sea capture (banded 8 Feb 2024)	9/04/2025	-34.90093 174.26082	3+	At sea captures only
H45251	at sea capture (banded 1 March 2023)	9/04/2025	-34.90093 174.26082	4+	At sea captures only
H31511	GBI, banded as chick in 1999 (random burrow)	9/04/2025	-34.93489 174.33039	26	not caught at colony to date
H41811	GBI, banded as adult in 2016 (random burrow)	9/04/2025	-35.00620 174.37806	9+	breeder, random burrow, not caught in colony since at sea capture
H42707	GBI, banded as chick in 2017 (random burrow)	10/04/2025	-35.18358 174.61672	8	not caught at colony to date
H40887	At sea capture (banded 20 Feb 2025)	10/04/2025	-35.17756 174.60520	2+	At sea captures only

Geographic coverage

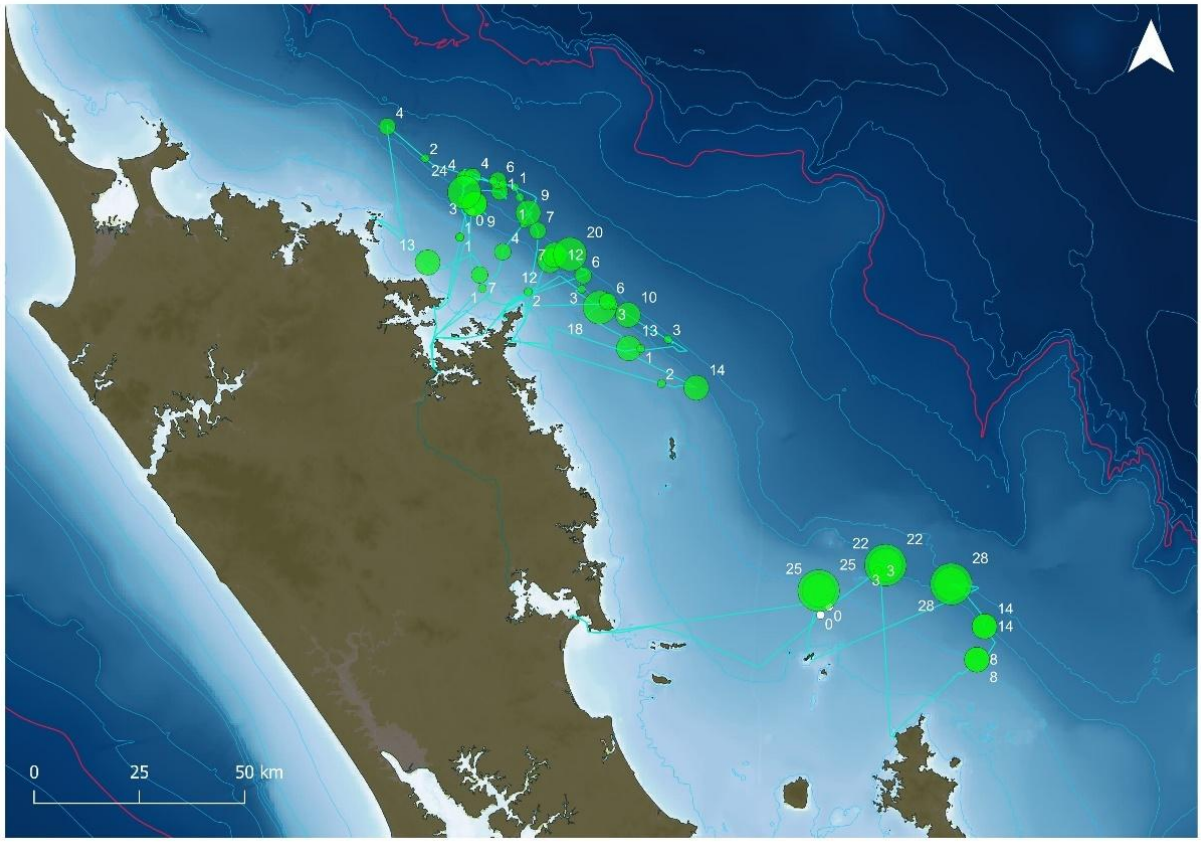


Figure 7. Catching locations and numbers captured at locations. One trip from Whangarei/Marsden Cove Marina; three from Opua, Bay of Islands.

Capture locations

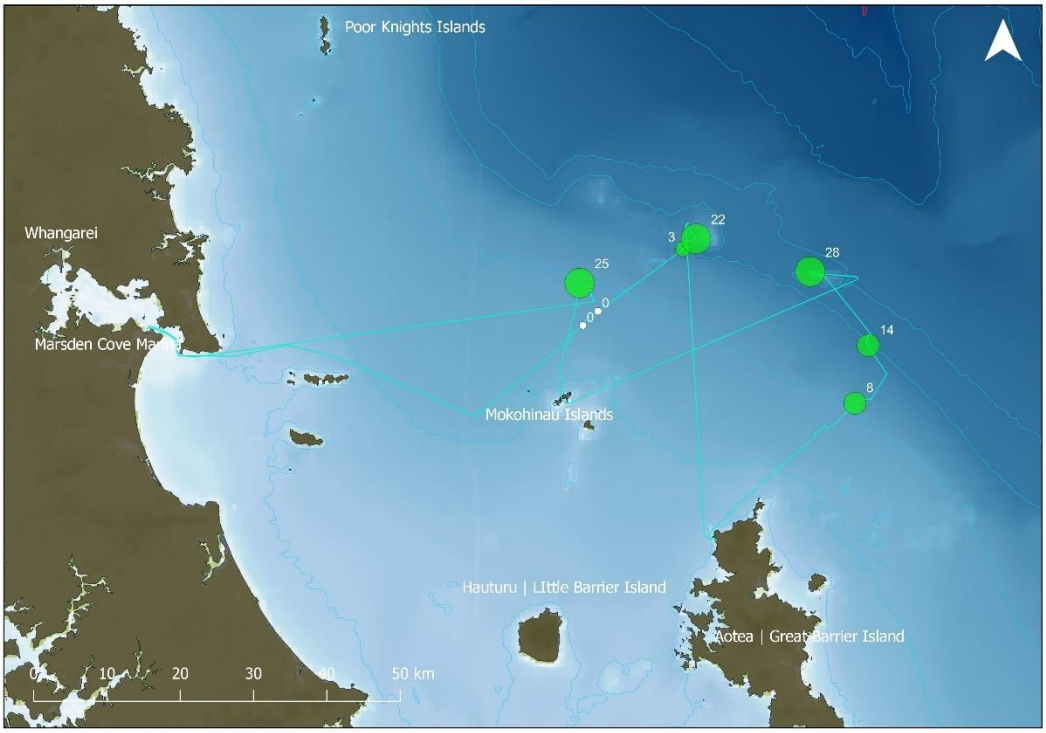


Figure 8. Capture locations, January 2025

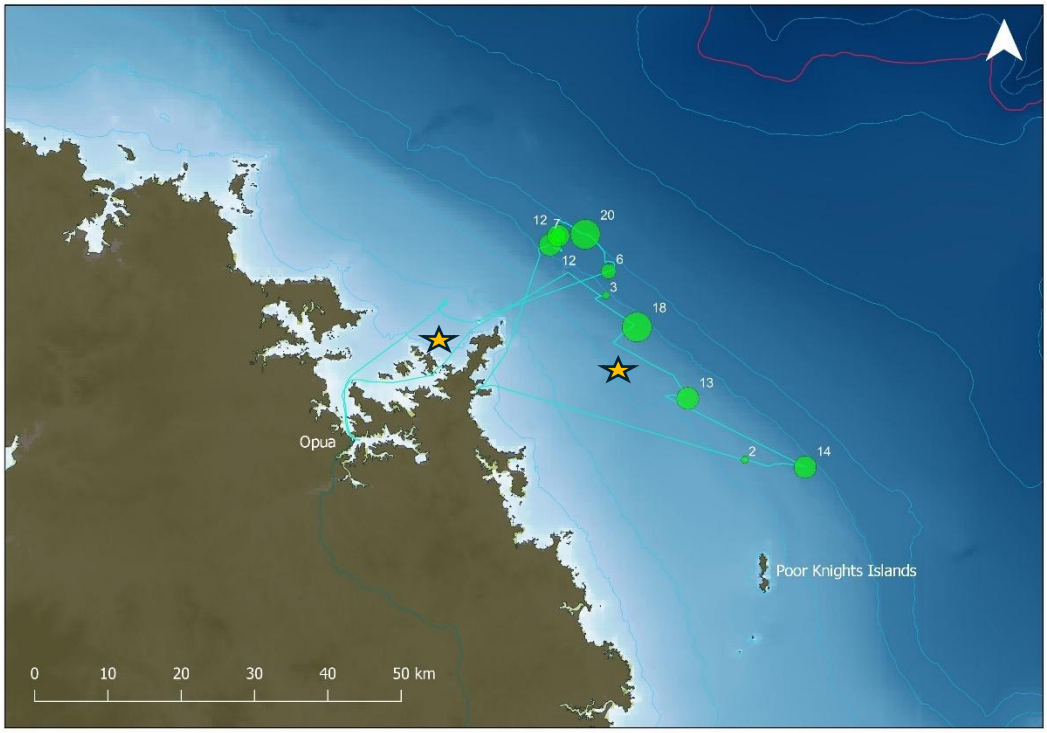


Figure 9. Capture locations, February 2025. One orange star (right) denotes a pod of pilot whales, and a second star (left) a very large, combined pod of false-killer whales and bottlenose dolphins.

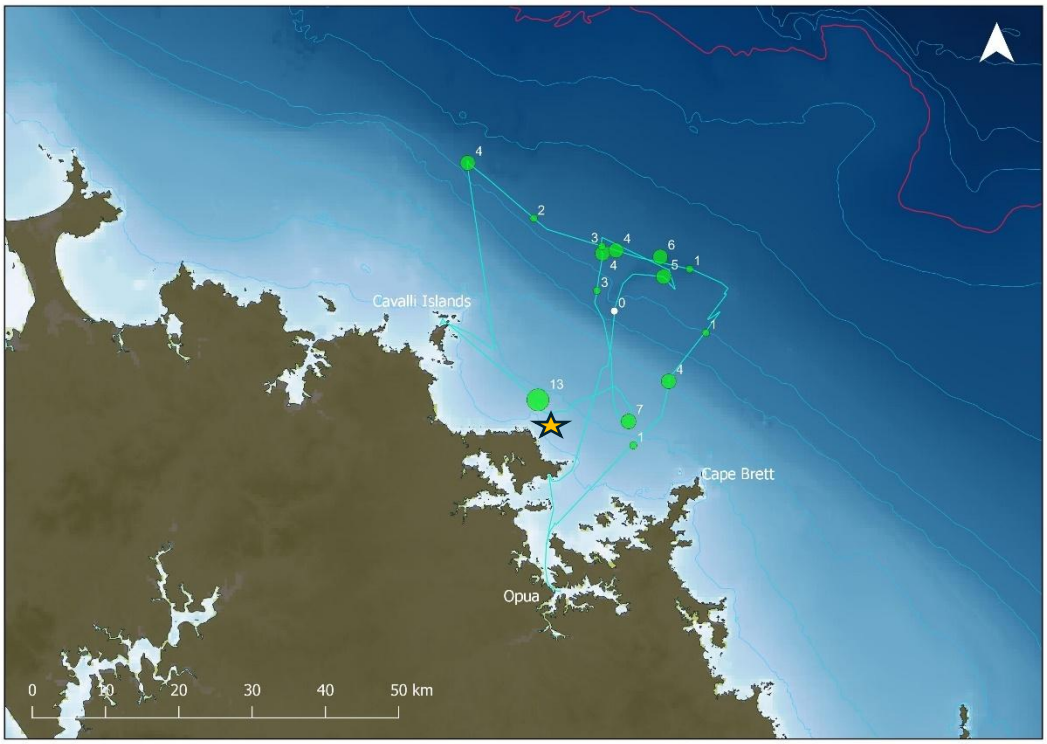


Figure 10. Capture locations, March 2025. Orange star denotes black petrels feeding in association with a large pod of false killer whales and bottlenose dolphins.

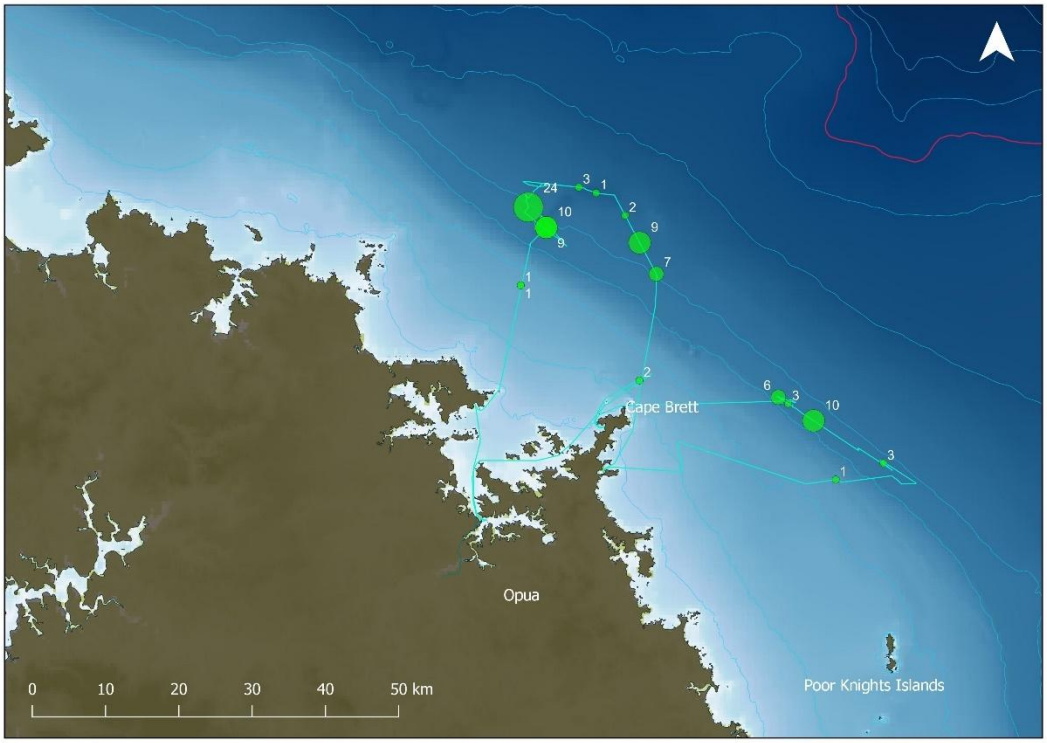


Figure 11. Capture locations, April 2025

Field trip summary

All four field trips were aboard *Manawanui*, operated by Eco Cruz (Bay of Islands/ Far Out Ocean Research Collective) with skipper Jochen Zaeschmar and crew Gier Sveeass. Team make up varied for each trip, although Chris Gaskin, Cathy and Pete Mitchell took part in all four trips.

9-11 January 2025

Boarded *Manawanui* on the afternoon of the 8 January from Marsden Cove Marina and overnighted at anchor in Whangarei Harbour. Conditions not favourable for anchoring at the Marotere/Chickens Islands. Pre-dawn start with a long transit first to an area between Taranga/Hen island and the Mokohinau Islands to try and locate cetaceans (none found), then northeast of the Mokohinau Islands close to the -200m bathymetric contour. First capture just after 1400hrs, followed by 24 more. Last capture was just before 1900hrs. Anchored for the night near Miners Head, Aotea/Great Barrier Island. Early start on 10 January in light conditions to three capture locations northeast/north of The Needles, Aotea, out towards the -200m contour. Fifty captures before heading to an anchorage at Burgess Island, Mokohinau Islands. Early start again and headed north of the islands. Southerly wind steadily increased during the day, however managed to capture 25 petrels, until conditions got too bad to continue. Long transit back to Whangārei Harbour and drop off at Marsden Cove Marina.

20-21 February 2025

Boarded *Manawanui* on the afternoon of the 19 February at Opua, Bay of Islands, then departed, anchoring overnight at Cable Bay, Urupukapuka Island. Pre-dawn start and headed out east of Cape Brett in light conditions, encountering first a large, very active work-up with many Buller's shearwaters, then a pod of pilot whales and inevitably black petrels. We stayed in the area until just after midday catching 21 birds, before heading southeast to north of the Poor Knights. After two more capture sessions (27 birds) finishing at 18:30hrs, we started making our way to an anchorage in Whangamumu Harbour, just south of Cape Brett. Delayed briefly by catching two of the following black petrels, making the day's tally 50 birds. Next morning we headed northeast off Cape Brett, to the -200, then -250m contours for five catching sessions and another 57 birds. At 14:20hrs we started making our way back to Opua. At the entrance to the Bay of Islands we encountered a huge mixed pod of false-killer whales and bottlenose dolphins and spent some time photographing the whales for fin IDs. We were back in Opua at around 2000hrs.

13-14 March 2025

Boarded *Manawanui* on the afternoon of the 12 March at Opua, Bay of Islands, then departed, anchoring overnight at Whale Bay, near Marsden Cross, the northern side of the Bay of Islands. After an early pre-dawn departure made our way out to the Ninepin Trench.

We tried a stop at the -200m contour(nothing), then continued out beyond the -250m contour to several locations, capturing a few birds at each stop (25 in total). Then late in the day we spied a pod of false killer whales heading north and with them plenty of black petrels. In the time available before dark we managed to capture another 13 birds. We anchored at the northern Cavalli Islands for the night. Early start on 14 March, once well clear of the Cavalli Islands tried to detect the whales on the hydrophone, but without success. We tried north of the Cavalli Islands out beyond the -250m for a while, with only a few black petrels in sight (4 captures), which set the pattern for the day, small numbers of captures at each stop, our last capture at 17:14hrs (20 for the day, and 58 for the trip).

9-11 April 2025

Boarded *Manawanui* on the afternoon of the 8 April at Opua, Bay of Islands, then departed, anchoring overnight at Whale Bay. Once again, another early start and made our way to the Ninepin Trench, capturing two birds on the way out for some training for two colleagues from New Caledonia on board. This trip there were plenty of black petrels at the trench and at six other locations as we made our way south along the -250m contour. By the time we had finished catching at 18:20hrs we had captured 61 birds, before heading to an anchorage at Whangamumu Harbour, arriving there well after dark. Next morning, it looked promising with good conditions until the engine started overheating. It took several hours to get the engine back running, and it wasn't until just before midday that we caught our first bird, the only one following us at the time. Through the afternoon we captured another 23 birds; mostly by letting the numbers of unmarked birds build up as we cruised, then stopping, making a few captures, then continuing on. Through this period, we had hundreds of New Zealand storm petrels in our wake. By late afternoon the wind was up, and that night at our anchorage at Deep Water Cove near Cape Brett, we could hear the wind howling above the surrounding headlands. Next morning, 11 April, the wind was still strong, but we decided to see if it was possible to capture birds in those conditions. We captured two birds that approached the stern of the boat and then flew alongside but bringing them aboard and processing them in the rough sea was too difficult. We made the decision to stop catching based on the worsening forecast.

Discussion

Season summary

Method refinement from the 2024 season allowed for a greater number of black petrel captures in the 2025 season. In addition, refinements of catching methodology allowed the team to work in a wider variety of sea-states, and using the same catching and processing personnel increased efficiency and safety of capture-to-release. A total of 351 individuals were captured, with a recapture-rate of previously banded birds of 7% for the whole season. This is an increase on the 2024 recapture rate of 4%. Capture rate per effort

increased to an average of 8.2 captures/hour in 2025 compared to 3.6 c/h in 2024, indicating that decisions to target later season and more offshore areas were justified in increasing the data return from each trip.

As with the previous season the capture rate (birds caught/hours chumming) increased significantly from January to April (Table 1). The recapture rate also increased across the season. A potential reason for this may be the retention of breeding birds in the vicinity of the colony at later breeding stages (chick-provisioning), while non-breeders and pre-breeders move further offshore, or begin their annual migration early. This may change the proportion of previously banded birds in the area, given that banding effort has focused on these individuals in the past.

Species interactions

Black petrels (and flesh-footed shearwaters) following and feeding in association with cetaceans (false-killer whales, pilot whales, bottle-nose dolphins) is something we have recorded previously (Gaskin, 2017). The attraction of feeding on discards from the cetaceans' feeding (i.e., allowing the birds access to prey from depths beyond which they can dive) appears an extremely strong one. False killer whales will likely provide better feeding opportunities because they dismember large prey at the surface rather than swallowing them whole, which is typical of Pilot whales (J. Zaeschmar pers. comm.).

Figure 12: A mixed flock of flesh-footed shearwaters and black petrels feeding on scraps provided by false killer whales. Photo: Edin Whitehead.

This season we had two opportunities to catch birds around these aggregations, which facilitated high capture rates due to the constant attraction of the food resource the cetaceans provide. In February eighteen captures occurred with birds foraging in association

with a long-finned pilot whale pod, and in March 13 captures were of birds feeding alongside false killer whales and oceanic bottlenose dolphins. In these situations a high proportion of flesh-footed shearwaters in the feeding flocks tested the skill of the catching team and their ability to target black petrels.

Limitations

Catch effort on the final trip in April was limited by engine-related boat issues, which took a few hours to resolve. However this proved to be no great impediment, as chumming was undertaken while repairs were underway and very few birds were attracted in the vicinity. This trip was also cut short by a rapidly deteriorating forecast, which prevented catching beyond 0800 hrs on the final day of the trip. Despite this, the April trip had the highest capture rate of the season, providing a great return on the effort of the catching team.

Having two birds regurgitate a large amount of proventricular oil post-capture was unusual this season, as it has not been observed previously in over 400 captures at-sea that occurred before April 2025. While birds caught at-sea do occasionally regurgitate, it is usually what they have consumed immediately prior to capture (salmon berley). These birds may have been chick-provisioning and returning from long foraging trips, with a full load of proventricular oil. In both instances, capture was immediately paused to allow the people processing time to maximise bird welfare - either by cleaning feathers prior to release, or ensuring a safe and comfortable enclosure was provided for the bird that was unable to be safely released at sea and required re-waterproofing.

Capture technique development

The net gun has proved a safe, efficient, and highly selective method for capturing birds at sea, both through this project and a number of others nationally and internationally. Having a well-trained and skilled team is paramount to maximising both the data return from these techniques, as well as ensuring high standards of bird welfare. Post-capture, most birds immediately returned to forage on berley around the vessel, indicating that capture did not prove a significant deterrent.

At-sea capture using the net gun for chum-attracted species is a useful method for accessing portions of the population that do not necessarily frequent breeding colonies, including pre-breeders (young birds) and sabbaticals. In this project it has allowed the recapture of birds banded as chicks on the two island colonies that have not subsequently been re-sighted on land but have survived into adulthood. These birds have either not recruited into the breeding population yet or have done so in areas that are not monitored.

During the April trip, we were able to train colleagues from Bird Conservation New Caledonia in the use of the net gun, in anticipation of projects in their region requiring use of the technique to undertake baseline studies of data-deficient seabirds. For further

projects that require the capture of seabirds at sea, the net gun provides a reliable and highly effective technique that can be used in a variety of sea-states.

Conclusion

The data from this report and previous seasons will be used in the analysis of black petrel demographic rates, for a better understanding of their overall numbers and population structure as part of a separate CSP contract.

Ancillary information and data collection

Bycaught black petrel

A bird captured and banded (H40782) by our team on 8 February 2024 at sea, north of Mokohinau Islands (-35.80973 175.10752) was subsequently caught by a fishing vessel operating out of Tauranga in January 2025. It's story didn't end there. All bycaught birds are subject to necropsy checks undertaken by Wildlife Management International on contract to DOC. It was one of several birds brought up for a well-attended necropsy workshop at the Oceania Seabirds 2025 symposium, held at the University of Auckland in April.

Figures 13-14. Photos: Edin Whitehead, Carlo Iacovino (SPREP)

Other species

Flesh-footed shearwaters

A flesh-footed shearwater was observed flying alongside the boat with a dangling trace, having ingested a fishing hook. The trace was looped around the neck/wings and interfering

with the movement of the legs, on several occasions we observed the bird being 'spooked' by the movement of the trace around its body. We were able to capture the individual with the net gun, cut the trace free and release it.

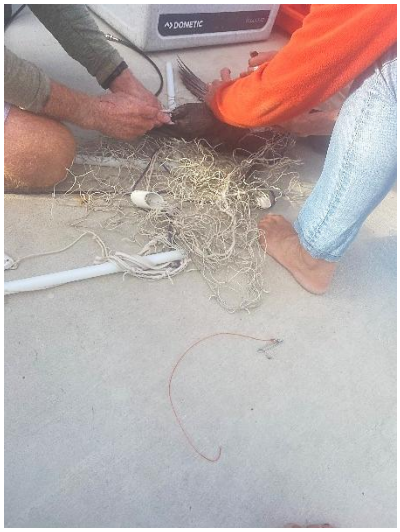


Figure 15 & 16. Left, A flesh-footed shearwater with trace visible; right, trace cut from the bird after capture. Photos: Edin Whitehead, Chris Gaskin.

New Zealand storm petrel

Three banded NZSP were photographed foraging in the wake, two on 9 April, one on 10 April. All retained colour bands along with a metal B band. One bird had all three colour bands, the other two birds had two, likely losing a third if one had been fitted. The colour Darvic bands were fitted (butt joined but not glued) to NZSP captured at sea and on Hauturu in 2009 and between 2012 and 2018. With colours fading due to high UV exposure it is difficult to identify the individuals precisely, however the colour over metal does group birds into cohorts (i.e., banded in a single catching trip). All photos by Edin Whitehead.

Figure 17. Banded NZ storm petrel.
Possible identifications
11/02/2015 (fluro pink/green; purple/M)
13/02/2015 (fluro pink/green; purple/M)
13/02/2015 (fluro pink/green; black/M)
05/02/2016 (fluro pink/green; orange/M)
02/03/2016 (fluro pink/green; yellow/M)
(L/R)

Figure 18. Banded NZ storm petrel. Possible identification

27/02/2014 (blue/M; blue/pink) (L/R)

Figure 19. Banded NZ storm petrel. Possible identifications. Ten possibilities for yellow over metal on right leg

One captured in the Paharikoakoa Valley 18/03/2013 (Megan Young)
Or one of nine birds captured on 6 or 7 March 2016

Figure 20. NZ storm petrel with ‘anklets’. Anklets like these have been found on NZSP captured both at sea and on land (Hauturu). Macro examination (photographs) of those collected suggests they are made from spider’s webs, which wrap around the birds’ legs while on the ground or in their burrows. These anklets pick up a variety of small leaves, fern spores, for example. See Gaskin et al (2011) for the most extreme example of vegetative material caught in one of these anklets.

Antipodean Albatross

One banded Antipodean albatross was sighted during the March 2025 trip (G-364). This bird was banded on Campbell Island during the 2025 summer season. Location was recorded and the sighting sent to Kath Walker for inclusion in the Antipodean Albatross database as a foraging distribution record.

Figure 21. Banded Antipodean albatross. Photo: Edin Whitehead.

All records of other birds seen at sea are in Appendix 2

References

Gaskin, C.P., Fitzgerald, N., Cameron, E.K., Heiss-Dunlop, S. 2011. Does the New Zealand storm-petrel (*Pealeornis maoriana*) breed in northern New Zealand? *Notornis 58*: 104-112

Gaskin, C.P., 2017. Procellariiformes associating with shoaling fish schools – northern New Zealand. Conservation Services Programme, Department of Conservation, Wellington.

Gaskin, C.P. (ed) 2021. The State of Our Seabirds 2021. Seabird ecology, research and conservation for the wider Hauraki Gulf / Tīkapa Moana / Te Moananui-ā-Toi region. Northern New Zealand Seabirds Charitable Trust, Auckland, New Zealand. 154p

Gaskin, C.P., Whitehead, E.A. 2024. Tākoketai black petrel monitoring – captures at sea. Final report for POP2022-01 for Department of Conservation, Conservation Services Programme. Department of Conservation, Wellington. https://www.doc.govt.nz/globalassets/documents/conservation/marine-and-coastal/marine-conservation-services/reports/202324-annual-plan/pop2022-01-black-petrel-catching-nnzst-final-report.pdf

Our teams

Karen Baird, Cathy and Peter Mitchell, Ben Gordon, Megan Young, Mathieu Mathivet, Thomas Bouyard, Edin Whitehead, and Chris Gaskin (catching and processing team); skipper Jochen Zaeschmar; crew (*Manawanui*) Gier Sveeass.




Figures 22-25. Team members, skippers and crew 2025

APPENDIX 1 – all captures 2025

Black petrel – all captures 2025

Date	Chum #	Latitude	Longitude	Time capture	Time release	Time processing	New band/ old band	Band #	Leg	Bander	Bill Length	Bill depth	Mass	BP	Feathers (3x)	Blood	Other BP in vicinity
9/01/2025	1	-35.72107	175.28377	14:00	14:12	12	NB	H43874	R	KB	40.9	19.6	740	Half bare/downy midline	Y	N	4
9/01/2025	1	-35.72107	175.28377	14:12	14:20	6	NB	H43875	R	CM	42.8	17.9	670	Bare/vasculated	Y	N	4
9/01/2025	1	-35.72107	175.28377	14:23	14:33	10	NB	H43876	R	KB	44.2	20	730	Half bare/downy midline	Y	N	6
9/01/2025	2	-35.70807	175.30323	15:54	16:02	8	NB	H43877	R	CM	41.7	18.6	760	Bare	Y	N	5
9/01/2025	2	-35.70807	175.30323	16:00	16:09	9	NB	H43878	R	KB	39.4	18.3	720	Bare	Y	N	8
9/01/2025	2	-35.70807	175.30323	16:06	16:17	11	NB	H43879	R	CM	42.9	19.4	650	Bare	Y	N	8
9/01/2025	2	-35.70807	175.30323	16:30	16:38	8	NB	H43880	R	KB	40	18.3	700	Half downy	Y	N	5
9/01/2025	2	-35.70807	175.30323	16:37	16:50	13	NB	H43881	R	CM	45.8	20.2	730	Downy	Y	N	7
9/01/2025	2	-35.70807	175.30323	16.46	16:57	11	NB	H43882	R	KB	36.9	20.6	660	Bare	Y	N	5
9/01/2025	2	-35.70807	175.30323	16:54	17:03	7	NB	H43883	R	CM	40.9	17.6	670	Half downy	Y	N	6
9/01/2025	2	-35.70807	175.30323	16:58	17:11	13	NB	H43884	R	KB	41.3	18.1	770	Half bare	Y	N	7
9/01/2025	2	-35.70807	175.30323	17:06	17:18	12	NB	H43885	R	CM	41.8	18.3	670	Mostly bare	Y	N	8
9/01/2025	2	-35.70807	175.30323	17:14	17:26	12	NB	H43886	R	KB	41	18.4	740	Half downy/downy midline	Y	N	8
9/01/2025	2	-35.70807	175.30323	17:21	17:31	10	OB	H39501	R		41.9	18.8	710	Downy	Y	N	12
9/01/2025	2	-35.70807	175.30323	17:28	17:39	11	OB	H36917			39.8	17.6	690	Downy	Y	N	10
9/01/2025	2	-35.70807	175.30323	17:34	17:46	12	NB	H43887	R	CM	42	19.8	710	Bare/thin downy centre line	Y	N	10
9/01/2025	2	-35.70807	175.30323	17:50	18:01	11	NB	H43888	R	KB	41.3	18.8	730	Half bare/downy midline	Y	N	
9/01/2025	2	-35.70807	175.30323	17:56	18:00	4	NB	H43889	R	CM	41	18.5	660	Bare with midline strip	Y	N	
9/01/2025	2	-35.70807	175.30323	18:00	18:13	13	OB	H36166			42.3	18.5	840	Downy	Y	N	10
9/01/2025	2	-35.70807	175.30323	18:11	18:21	10	NB	H43890	R	CM	41.8	18	680	Half bare	Y	N	11
9/01/2025	2	-35.70807	175.30323	18:19	18:29	10	NB	H43891	R	KB	40.1	18.1	670	Bare/some vasculation	Y	N	11
9/01/2025	2	-35.70807	175.30323	18:30	18:40	10	NB	H43892	R	CM	43.3	19.6	690	Bare	Y	N	10
9/01/2025	2	-35.70807	175.30323	18:40	18:49	9	NB	H43893	R	KB	42.2	19.1	750	Downy	Y	N	10
9/01/2025	2	-35.70807	175.30323	18:42	18:54	12	NB	H43894	R	CM	42	17.4	640	Half bare/downy midline	Y	N	10
9/01/2025	2	-35.70807	175.30323	18:54	19:04	10	NB	H43895	R	KB	38.8	16.6	700	Half bare/downy midline	Y	N	12
10/01/2025	1	-35.90526	175.54919	8:40	9:02	12	NB	H43896	R	CM	44.1	18.8	650	Bare with midline strip	Y	N	7
10/01/2025	1	-35.90526	175.54919	9:00	9:10	10	NB	H43897	R	KB	37.8	17.6	670	Bare with midline strip	Y	N	8
10/01/2025	1	-35.90526	175.54919	9:13	9:22	9	NB	H43898	R	CM	41.8	20	710	Bare with midline strip	Y	N	7
10/01/2025	1	-35.90526	175.54919	9:24	9:34	10	NB	H43899	R	KB	40.8	18.6	670	Bare	Y	N	10
10/01/2025	1	-35.90526	175.54919	9:24	9:50	26	NB	H43900	R	CM	40.5	20.3	680	Mostly bare/tin midline/vasculated	N	N	10
10/01/2025	1	-35.90526	175.54919	9:35	9:46	11	NB	H42381	R	KB	41.2	18.9	630	Bare/thin downy centre line	N	N	8
10/01/2025	1	-35.90526	175.54919	9:35	9:51	16	NB	H42382	R	CM	40.3	19.5	670	Bare/thin downy centre line	N	N	8
10/01/2025	1	-35.90526	175.54919	9:54	10:04	12	NB	H42383	R	KB	42.5	18.6	610	Two thirds bare/downy midline and below	N	N	5
10/01/2025	2	-35.83385	175.56697	11:06	11:14	8	NB	H42384	R	CM	43.2	19	760	Bare/thin downy centre line	Y	N	12
10/01/2025	2	-35.83385	175.56697	11:25	11:35	10	NB	H42385	L	KB	38.9	19.7	820	Bare/thin downy centre line	Y	N	5
10/01/2025	2	-35.83385	175.56697	11.44	11:50	6	NB	H42386	R	CM	43.4	18.2	600	Bare	N	N	
10/01/2025	2	-35.83385	175.56697	11:47	11:58	11	NB	H42387	L	KB	34.8	20.3	750	Bare	N	N	6
10/01/2025	2	-35.83385	175.56697	11:47	12:03	16	NB	H42388	R	CM	41	18.1	660	Bare/thin downy centre line	N	N	6
10/01/2025	2	-35.83385	175.56697	11:55	12:09	14	NB	H42389	R	KB	41.7	19	740	Bare/thin downy centre line	N	N	6
10/01/2025	2	-35.83385	175.56697	12:05	12:15	10	NB	H42390	R	CM	42.5	17.9	630	Bare/thin downy centre line	N	N	8
10/01/2025	2	-35.83385	175.56697	12:05			NB	H42391	R	KB	39.2	17.4	620	Downy	N	N	8
10/01/2025	2	-35.83385	175.56697	12:18	12:28	10	NB	H42392	R	CM	38.2	18	600	Bare/thick midline	N	N	8
10/01/2025	2	-35.83385	175.56697	12:18	12:36	18	NB	H42393	R	KB	37.8	16.9	710	Bare/thin downy centre line	N	N	8
10/01/2025	2	-35.83385	175.56697	12:18	12:38	20	NB	H42394	R	CM	41.1	16.5	570	Bare/refeathering	N	N	7

10/01/2025	2	-35.83385	175.56697	12:37			NB	H42395	R	KB	39.2	17.4	740	Bare	N	N	4
10/01/2025	2	-35.83385	175.56697	12:40	12:53	13	NB	H42396	R	CM	42.5	19.7	690	Bare/thick midline	N	N	6
10/01/2025	2	-35.83385	175.56697	12:49	13:00	11	NB	H42397	R	KB	43.6	19.2	750	Bare/thin downy centre line	Y	N	3
10/01/2025	3	-35.74512	175.47659	14:22	14:30	8	NB	H42398	R	CM	41.6	19	720	Bare/thick midline	Y	N	7
10/01/2025	3	-35.74512	175.47659	14:31	14:40	9	NB	H42399	R	KB	43.2	17.2	840	Bare	N	N	7
10/01/2025	3	-35.74512	175.47659	14:36	14:44	8	NB	H43992	R	CM	40.6	18.7	750	Bare/thin downy centre line	N	N	7
10/01/2025	3	-35.74512	175.47659	14:36	14:50	14	NB	H43993	R	KB	40.5	18.6	750	Bare	N	N	7
10/01/2025	3	-35.74512	175.47659	14:36	14:56	20	NB	H43994	R	CM	42.2	18.7	690	Bare/thin downy centre line	N	N	7
10/01/2025	3	-35.74512	175.47659	14:51	15:03	12	NB	H43995	R	KB	39.5	18	680	Bare	N	N	7
10/01/2025	3	-35.74512	175.47659	15:01	15:08	7	NB	H43996	R	CM	42.1	16.7	700	Bare/thin downy centre line	N	N	11
10/01/2025	3	-35.74512	175.47659	15:06	15:20	14	NB	H43997	R	CM	40.6	18.1	660	Bare/thick midline	N	N	11
10/01/2025	3	-35.74512	175.47659	15:06	15:24	18	NB	H43998	R	KB	40.5	18.9	750	Half bare/half downy	N	N	11
10/01/2025	3	-35.74512	175.47659	15:06	15:26	20	NB	H43999	R	CM	40.8	17.6	670	Bare/thin downy centre line	N	N	11
10/01/2025	3	-35.74512	175.47659	15:26	15:34	8	NB	H44000	R	KB	42.7	16.7	670	Bare	N	N	10
10/01/2025	3	-35.74512	175.47659	15:30	15:40	10	NB	H43675	R	CM	42.3	17	690	Bare/thick midline	Y	N	10
10/01/2025	3	-35.74512	175.47659	15:40	15:49	9	NB	H43676	R	KB	39.5	16.6	610	Bare/thin downy centre line	N	N	8
10/01/2025	3	-35.74512	175.47659	15:46	15:56	10	NB	H43677	R	CM	45.4		800	Bare/thin downy centre line	Y	N	5
10/01/2025	3	-35.74512	175.47659	15:59	16:06	7	NB	H43678	R	CM	45.5	20.2	700	Bare/thin downy centre line	N	N	5
10/01/2025	3	-35.74512	175.47659	15:59	16:12	13	NB	H43679	R	KB	40.4	17.6	650	Bare/thick midline	N	N	8
10/01/2025	3	-35.74512	175.47659	16:07	16:17	10	NB	H43680	R	CM	42.9	19.1	660	Bare/thin downy centre line	N	N	9
10/01/2025	3	-35.74512	175.47659	16:07	16:24	17	NB	H43681	R	KB	39.3	17.8	700	Bare/thin downy centre line	N	N	9
10/01/2025	3	-35.74512	175.47659	16:18	16:29	11	NB	H43682	R	CM	42	17.8	720	Bare/thin downy centre line	N	N	10
10/01/2025	3	-35.74512	175.47659	16:26	16:35	9	NB	H43683	R	KB	39.7	17.2	600	Bare/thin downy centre line	N	N	15
10/01/2025	3	-35.74512	175.47659	16:47	16:55	8	NB	H43684	R	CM	41.4	17.5	700	Bare/thin downy centre line	N	N	12
10/01/2025	3	-35.74512	175.47659	16:51	17:00	9	NB	H43685	R	KB	40.2	18.3	650	Bare	N	N	10
10/01/2025	3	-35.74512	175.47659	16:51	17:07	16	NB	H43686	R	CM	41.2	18.2	660	Bare/thin downy centre line	N	N	10
10/01/2025	3	-35.74512	175.47659	17:03	17:16	13	NB	H43687	R	KB	41.1	17.8	630	Bare/refeathering	N	N	8
10/01/2025	3	-35.74512	175.47659	17:11	17:22	11	NB	H43688	R	CM	41.1	18.2	680	Bare	N	N	6
10/01/2025	3	-35.74512	175.47659	17:18	17:28	10	NB	H43689	R	KB	38.4	17.8	710	Bare/refeathering	N	N	12
10/01/2025	3	-35.74512	175.47659	17:29	17:38	9	NB	H43690	R	CM	42.5	18	640	Bare/thin downy centre line	Y	N	12
10/01/2025	3	-35.74512	175.47659	17:40	17:50	10	NB	H43691	R	KB	38.6	18.6	760	Bare/thin downy centre line	Y	N	10
11/01/2025	1	-35.76586	175.12930	07:44	07:51	7	NB	H43692	R	CM	41.7	18.2	590	Bare	Y	N	7
11/01/2025	1	-35.76586	175.12930	08:11	08:19	8	NB	H43693	R	KB	38.2	17.8	570	Bare	N	N	12
11/01/2025	1	-35.76586	175.12930	08:13	08:26	13	NB	H43694	R	CM	43.7	17.8	780	Bare/thin downy centre line	Y	N	12
11/01/2025	1	-35.76586	175.12930	08:35	08:43	8	NB	H43695	R	KB	39.4	18.2	640	Bare/thick midline	N	N	20
11/01/2025	1	-35.76586	175.12930	08:41	08:52	11	NB	H43696	R	CM	40	18.6	650	Bare/thin downy centre line/refeathering	N	N	20
11/01/2025	1	-35.76586	175.12930	08:49	08:58	9	NB	H43697	R	KB	40.6	17.3	690	Bare/thin midline	N	N	15
11/01/2025	1	-35.76586	175.12930	08:55	09:06	11	NB	H43698	R	CM	43	18.6	720	Bare/refeathering	N	N	15
11/01/2025	1	-35.76586	175.12930	09:02	09:12	10	NB	H43699	R	KB	43.4	19.5	710	Bare/thin midline	N	N	22
11/01/2025	1	-35.76586	175.12930	09:09	09:19	10	NB	H43700	R	CM	41.5	20.1	660	Bare/thin midline	N	N	18
11/01/2025	1	-35.76586	175.12930	09:17	09:27	10	NB	H40851	R	KB	40.7	20.9	730	Bare	Y	N	18
11/01/2025	1	-35.76586	175.12930	09:29	09:39	10	NB	H40854	R	CM	42.2	18	780	Bare	Y	N	16
11/01/2025	1	-35.76586	175.12930	09:38	09:46	8	NB	H40852	R	KB	39.3	18.2	690	Bare/thick midline	N	N	15
11/01/2025	1	-35.76586	175.12930	09:46	09:53	7	NB	H40853	R	CM	40	18.4	630	Bare/thick midline	N	N	15
11/01/2025	1	-35.76586	175.12930	09:46	10:00	14	NB	H40655	R	KB	38.7	16.7	650	Bare/thin midline	Y	N	15
11/01/2025	1	-35.76586	175.12930	10:12	10:20	8	NB	H40656	R	CM	42.3	18.1	620	Bare/thin midline/refeathering	Y (4)	N	6
11/01/2025	1	-35.76586	175.12930	10:23	10:31	8	NB	H40857	R	KB	40.9	18.3	730	Downy	N	N	8
11/01/2025	1	-35.76586	175.12930	10:27	10:37	10	NB	H40659	R	CM	41.1	16.4	740	Bare/thin midline	Y	N	10

11/01/2025	1	-35.76586	175.12930	10:40	10:50	10	NB	H40870	R	KB	40	18	590	Bare/thin midline	N	N	6
11/01/2025	1	-35.76586	175.12930	10:45	10:56	11	NB	H40871	R	CM	38.6	16.3	680	Bare/thin midline/refeathering	Y	N	6
11/01/2025	1	-35.76586	175.12930	11:02	11:11	8	NB	H40872	R	KB	40.2	19.7	800	Bare/thin midline/some pins	N	N	4
11/01/2025	1	-35.76586	175.12930	11:02	11:17	15	NB	H40873	R	CM	44.4	18.8	710	Bare/thin midline/refeathering	N	N	4
11/01/2025	1	-35.76586	175.12930	11:14	11:22	8	NB	H40874	R	KB	41.1	18.8	840	Bare	N	N	5
11/01/2025	1	-35.76586	175.12930	11:20	11:29	9	NB	H40875	R	CM	40.4	19.3	720	Bare/thin midline/refeathering	N	N	6
11/01/2025	1	-35.76586	175.12930	11:27	11:37	10	NB	H40876	R	KB	40.3	20.1	710	Bare	N	N	7
11/01/2025	1	-35.76586	175.12930	11:25	11:44	19	NB	H40877	R	CM	41.4	18.2	720	Bare/thin midline	Y	N	4
20/02/2025	1	-35.13001	174.49524	8:56	9:04	8	NB	H40862	R	CM	42.1	17.3	710	Bare with some refeathering	N	N	6
20/02/2025	1	-35.13001	174.49524	9:19	9:28	9	NB	H40878	R	BG	38.7	17.6	720	Bare with some refeathering	N	N	4
20/02/2025	1	-35.13001	174.49524	9:27	9:34	7	NB	H40879	R	CM	43.8	18.2	710	Bare with some refeathering	N	N	4
20/02/2025	2	-35.16844	174.54241	10:17	10:25	8	NB	H40880	R	BG	39.5	17.2	720	Becoming downy	N	N	8
20/02/2025	2	-35.16844	174.54241	10:25	10:34	9	NB	H40881	R	CM	40.7	15.9	730	Bare with some refeathering	N	N	8
20/02/2025	2	-35.16844	174.54241	10:30	10:39	9	OB	H43352	R	-	42.3	18	730	Bare with some refeathering	N	N	8
20/02/2025	2	-35.16844	174.54241	10:30	10:44	14	NB	H40882	R	BG	42.1	18.5	770	Bare with some refeathering	N	N	8
20/02/2025	2	-35.16844	174.54241	10:41	10:48	7	NB	H40883	R	CM	39.6	17.3	690	One third downy, refeathering	N	N	10
20/02/2025	2	-35.16844	174.54241	10:45	10:51	6	NB	H40884	R	BG	40.1	16.7	780	Bare downy midline	N	N	10
20/02/2025	2	-35.16844	174.54241	10:51	10:59	8	NB	H40885	R	CM	42.9	16.7	660	Downy	N	N	10
20/02/2025	2	-35.16844	174.54241	10:56	11:04	8	NB	H40886	R	BG	42.8	17.3	810	Mostly downy	N	N	10
20/02/2025	2	-35.16844	174.54241	11:01	11:09	8	NB	H40887	R	CM	41.8	19.1	700	Bare with some refeathering - midline	N	N	8
20/02/2025	2	-35.16844	174.54241	11:05	11:13	8	NB	H40888	R	BG	37.5	16.4	670	Bare with some down	N	N	8
20/02/2025	2	-35.16844	174.54241	11:11	11:19	8	NB	H40889	R	CM	39.6	18.5	790	Downy	N	N	10
20/02/2025	2	-35.16844	174.54241	11:18	11:25	7	NB	H40890	R	BG	39.1	18.2	820	Downy - refeathering	N	N	10
20/02/2025	2	-35.16844	174.54241	11:23	11:32	9	NB	H40891	R	BG	39.3	18.2	710	Downy	N	N	8
20/02/2025	2	-35.16844	174.54241	11:23	11:38	15	NB	H40892	R	CM	42.3	18.8	790	Bare with some refeathering	N	N	8
20/02/2025	2	-35.16844	174.54241	11:36	11:45	9	NB	H40893	R	BG	42.2	18.1	710	Downy midline	N	N	8
20/02/2025	2	-35.16844	174.54241	11:40	11:49	9	NB	H40894	R	CM	39.9	18.2	710	Downy	N	N	9
20/02/2025	2	-35.16844	174.54241	11;47	11:55	8	NB	H40895	R	BG	40.9	18.7	640	Bare	N	N	11
20/02/2025	2	-35.16844	174.54241	11:53	12:04	11	NB	H40896	R	BG	43	18.8	730	Bare downy midline	N	N	5
20/02/2025	3	-35.25501	174.62016	13:33	13:33	7	OB	H35270	R	-	41.1	19	800	Bare downy midline	N	N	8
20/02/2025	3	-35.25501	174.62016	13:33	13:47	14	NB	H40897	R	CM	43.7	18.6	700	Mostly downy	N	N	8
20/02/2025	3	-35.25501	174.62016	13:33	13:42	9	NB	H40898	R	BG	43.2	19.6	630	Bare downy midline	N	N	8
20/02/2025	3	-35.25501	174.62016	13:42	13:52	10	NB	H40899	R	CM	45	19.6	690	Bare downy midline	N	N	4
20/02/2025	3	-35.25501	174.62016	13:42	13:52	10	NB	H40900	R	BG	41.5	17.2	600	Bare downy midline	N	N	4
20/02/2025	3	-35.25501	174.62016	13:42	14:00	18	NB	H40551	R	CM	41.5	17.7	740	Downy	N	N	4
20/02/2025	3	-35.25501	174.62016	13:56	14:01	5	NB	H40552	R	BG	39.3	16.4	650	Downy	N	N	8
20/02/2025	3	-35.25501	174.62016	13:56	14:07	11	NB	H40553	R	CM	43.5	18.7	680	Mostly downy	N	N	4
20/02/2025	3	-35.25501	174.62016	14:01	14:10	9	NB	H40554	R	BG	40.4	18	630	Bare downy midline	N	N	4
20/02/2025	3	-35.25501	174.62016	14:14	14:22	8	NB	H40555	R	CM	41.6	19.2	770	Downy	N	N	8
20/02/2025	3	-35.25501	174.62016	14:20	14:27	7	NB	H40556	R	BG	45.6	18.4	860	Downy	N	N	8
20/02/2025	3	-35.25501	174.62016	14:30	14:40	10	NB	H40557	R	CM	40.8	19.1	730	Bare some refeeathering	N	N	8
20/02/2025	3	-35.25501	174.62016	14:43	14:52	9	NB	H40558	R	CM	42.9	18.6	760	Medium downy	N	N	2
20/02/2025	4	-35.33703	174.79798	16:35	16:43	8	NB	H40559	R	CM	40	18.1	670	Downy some refeathering	N	N	7
20/02/2025	4	-35.33703	174.79798	16:44	16:51	7	NB	H40560	R	BG	41.4	18.4	740	Downy	N	N	6
20/02/2025	4	-35.33703	174.79798	16:47	16:58	11	NB	H40570	R	CM	42	17.7	730	Downy refeathering	N	N	4
20/02/2025	4	-35.33703	174.79798	16:51	16:59	8	NB	H40571	R	BG	42.4	18.3	670	Bare downy mid line	N	N	4
20/02/2025	4	-35.33703	174.79798	16:58	17:07	9	NB	H40572	R	CM	41.8	17.4	760	Bare downy mid line	N	N	8
20/02/2025	4	-35.33703	174.79798	17:03	17:10	7	NB	H40573	R	BG	42.2	16.9	720	Downy	N	N	6

20/02/2025	4	-35.33703	174.79798	17:08	17:15	7	NB	H40574	R	CM	40.2	18.7	740	Bare downy mid line	N	N	5
20/02/2025	4	-35.33703	174.79798	17:23	17:28	5	NB	H40575	R	BG	42.5	19.7	730	Bare downy midline	N	N	5
20/02/2025	4	-35.33703	174.79798	17:28	17:34	6	NB	H40576	R	CM	43.1	18.8	840	Bare downy midline	N	N	8
20/02/2025	4	-35.33703	174.79798	17:32	17:39	7	OB	H45444	R	-	37.6	17.1	770	Downy with refeathering	N	N	8
20/02/2025	4	-35.33703	174.79798	17:39	17:47	8	NB	H40577	R	CM	41.3	18.5	860	Bare OM refeathering	N	N	5
20/02/2025	4	-35.33703	174.79798	17:44	17:50	6	NB	H40578	R	BG	42.6	17.6	710	Bare OM refeathering	N	N	5
20/02/2025	4	-35.33703	174.79798	18:14	18:22	8	NB	H40579	R	CM	41.2	19	810	Downy	N	N	5
20/02/2025	4	-35.33703	174.79798	18:22	18:28	6	NB	H40580	R	BG	40.3	19.6	740	Bare	N	N	4
20/02/2025	5	-35.32924	174.70734	18:51	18:59	8	NB	H40581	R	CM	44.8	18.6	820	Downy	N	N	4
20/02/2025	5	-35.32924	174.70734	18:55	19:01	6	NB	H40582	R	BG	44.9	16	800	Downy, refeathering	N	N	4
21/02/2025	1	-35.06902	174.41057	8:35	8:42	7	NB	H40583	R	CM	45.1	18.5	660	Partly downy - just refeathering	N	N	20
21/02/2025	1	-35.06902	174.41057	8:35	8:41	6	NB	H40584	R	BG	40.9	18.1	670	Downy	N	N	20
21/02/2025	1	-35.06902	174.41057	8:41	8:45	4	NB	H40585	R	BG	44.4	20.1	670	Mostly downy	N	N	20
21/02/2025	1	-35.06902	174.41057	8:45	8:52	7	NB	H40586	R	CM	44.1	19.5	700	Bare starting to refeather	N	N	5
21/02/2025	1	-35.06902	174.41057	8:52	9:01	9	NB	H40587	R	CM	43.9	19	770	Bare starting to refeather	N	N	7
21/02/2025	1	-35.06902	174.41057	8:52	9:02	10	NB	H40588	R	BG	43.6	18.9	810	Bare	N	N	7
21/02/2025	1	-35.06902	174.41057	9:02	9:10	8	NB	H40589	R	CM	43.5	18.5	630	Bare	N	N	5
21/02/2025	1	-35.06902	174.41057	9:07	9:12	7	NB	H40590	R	BG	40.9	17	710	Bare	N	N	6
21/02/2025	1	-35.06902	174.41057	9:07	9:18	11	NB	H40591	R	CM	42.4	19	670	Bare starting to refeather	N	N	6
21/02/2025	1	-35.06902	174.41057	9:12	9:19	7	NB	H40592	R	BG	43.3	18.5	690	Downy refeathering	N	N	6
21/02/2025	1	-35.06902	174.41057	9:20	9:26	6	NB	H40593	R	CM	40.9	18.1	750	Downy	N	N	10
21/02/2025	1	-35.06902	174.41057	9:27	9:35	8	NB	H40594	R	BG	42.4	18.8	740	Bare starting to refeather	N	N	8
21/02/2025	2	-35.05767	174.42273	9:58	10:03	5	NB	H40595	R	CM	42.6	18	690	Downy	N	N	30
21/02/2025	2	-35.05767	174.42273	10:02	10:07	5	NB	H40596	R	BG	41	17	750	Bare refeathering	N	N	30
21/02/2025	2	-35.05767	174.42273	10:05	10:13	8	NB	H40597	R	CM	41.2	19.4	730	Refeathering - light downy all over	N	N	8
21/02/2025	2	-35.05767	174.42273	10:09	10:15	6	NB	H40598	R	BG	39.9	19.3	780	Downy	N	N	10
21/02/2025	2	-35.05767	174.42273	10:09	10:20	11	NB	H40599	R	CM	41.5	19.9	690	Refeathering - light downy all over	N	N	10
21/02/2025	2	-35.05767	174.42273	10:18	10:24	6	NB	H40600	R	BG	40	17.4	690	Mostly downy	N	N	10
21/02/2025	2	-35.05767	174.42273	10:18	10:30	12	OB	H45907	R	CM	40.4	18.5	770	Light down all over	N	N	10
21/02/2025	3	-35.05767	174.42273	10:36	10:41	5	NB	H42251	R	BG	41.8	17.6	740	Downy	N	N	15
21/02/2025	3	-35.05767	174.42273	10:39	10:48	9	NB	H42252	R	CM	42	18.8	660	Light down all over	N	N	15
21/02/2025	3	-35.05767	174.42273	10:42	10:48	6	NB	H42253	R	BG	44.6	18	750	Half downy	N	N	10
21/02/2025	3	-35.05767	174.42273	10:46	10:55	9	NB	H42254	R	CM	40.5	18.6	790	Bare	N	N	8
21/02/2025	3	-35.05767	174.42273	10:51	10:56	5	NB	H42255	R	BG	42.8	19.4	730	Half downy	N	N	7
21/02/2025	3	-35.05767	174.42273	10:55	11;03	8	NB	H42256	R	CM	43.3	17.6	780	Light down all over	N	N	8
21/02/2025	3	-35.05767	174.42273	11:00	11:08	8	NB	H42257	R	BG	41.2	18.4	710	Downy	N	N	8
21/02/2025	3	-35.05767	174.42273	11:08	11:17	9	NB	H42258	R	CM	42.8	19	690	Refeathering - 50%	N	N	15
21/02/2025	3	-35.05767	174.42273	11.11	11:17	6	NB	H42259	R	BG	39.5	18.7	660	Bare	N	N	15
21/02/2025	3	-35.05767	174.42273	11:17	11:25	8	NB	H42260	R	CM	41.9	17.6	660	Light down all over	N	N	15
21/02/2025	3	-35.05767	174.42273	11:21	11;27	6	NB	H42261	R	BG	43.6	18.1	690	Half downy	N	N	13
21/02/2025	3	-35.05767	174.42273	11:25	11:34	9	NB	H42262	R	CM	42.7	19.3	750	Half downy	N	N	20
21/02/2025	4	-35.05767	174.42273	11:55	12:01	6	NB	H42263	R	BG	41.1	19	710	Half downy	N	N	15
21/02/2025	4	-35.05767	174.42273	12:00	12:06	6	NB	H42264	R	CM	43	19.1	720	Medium downy	N	N	8
21/02/2025	4	-35.05767	174.42273	12:00	12:07	7	NB	H42265	R	BG	42.7	17.4	690	Downy	N	N	8
21/02/2025	4	-35.05767	174.42273	12:14	12:20	6	NB	H42266	R	BG	42.2	17.8	730	Downy	N	N	8
21/02/2025	4	-35.05767	174.42273	12:19	12:25	6	NB	H42267	R	CM	41	19.3	770	Half downy	N	N	18
21/02/2025	4	-35.05767	174.42273	12:22	12:30	8	NB	H42268	R	BG	41.7	17.6	650	Bare	N	N	18
21/02/2025	4	-35.05767	174.42273	12:25	12:34	9	OB	H44532	R	-	41.1	19.1	730	Bare downy midline	N	N	20

21/02/2025	4	-35.05767	174.42273	12:32	12:42	10	OB	H45094	R	-	42.1	19.3	650	Downy	N	N	11
21/02/2025	4	-35.05543	174.46296	12:38	12:44	6	NB	H42269	R	CM	38.8	17.1	690	Bare	N	N	16
21/02/2025	4	-35.05543	174.46296	12:42	12:46	4	NB	H42270	R	BG	44.1	17.9	750	Downy	N	N	16
21/02/2025	4	-35.05543	174.46296	12:42	12:57	15	NB	H42271	R	CM	42.1	17.1	660	Half downy - refeathering	N	N	16
21/02/2025	4	-35.05543	174.46296	12:52	13:00	8	NB	H42272	R	BG	41.4	21.1	710	Three quarters light down	N	N	12
21/02/2025	4	-35.05543	174.46296	12:52	13:04	12	NB	H42273	R	CM	39.3	17.1	700	Downy	N	N	12
21/02/2025	4	-35.05543	174.46296	12:52	13:04	12	NB	H42274	R	BG	43.3	21.6	730	Bare	N	N	12
21/02/2025	4	-35.05543	174.46296	13:07	13:12	5	NB	H42275	R	CM	41.6	17.2	650	Half downy	N	N	15
21/02/2025	4	-35.05543	174.46296	13:10	13:13	3	NB	H42276	R	BG	43.5	18.4	700	Downy	N	N	12
21/02/2025	4	-35.05543	174.46296	13:14	13:22	8	NB	H42277	R	CM	41.2	17.8	680	Bare	N	N	14
21/02/2025	4	-35.05543	174.46296	13:20	13:27	7	NB	H42278	R	BG	43.4	17.9	680	Downy	N	N	20
21/02/2025	4	-35.05543	174.46296	13:23	13:31	8	NB	H42279	R	CM	43.4	17.9	680	Bare	N	N	11
21/02/2025	4	-35.05543	174.46296	13:29	13:35	6	NB	H42280	R	BG	43.8	18.6	760	Bare - refeathering	N	N	13
21/02/2025	5	-35.10051	174.49841	13:46	13:54	8	NB	H42281	R	CM	54.5	18.9	710	Bare	N	N	6
21/02/2025	5	-35.10051	174.49841	13:48	13:55	7	NB	H42282	R	BG	41.4	17.7	840	Three quarters downy	N	N	5
21/02/2025	5	-35.10051	174.49841	13:48	14:00	2	NB	H42283	R	CM	42.6	17.7	780	Bare - refeathering	N	N	5
21/02/2025	5	-35.10051	174.49841	13:57	14:02	5	NB	H42284	R	BG	42.1	18.3	810	Bare - refeathering	N	N	4
21/02/2025	5	-35.10051	174.49841	14:02	14:09	7	NB	H42285	R	CM	41.6	19	860	Downy	N	N	6
21/02/2025	5	-35.10051	174.49841	14:08	14:15	7	NB	H42286	R	BG	38.9	18.9	710	Three-quarters refeathering	N	N	6
13/03/2025	2	-34.92388	174.27791	10:15	10:20	5	NB	H42287	R	CM	41.1	16.7	705	Downy	N	N	
13/03/2025	2	-34.92388	174.27791	10:22	10:28	6	NB	H42288	R	EW	42.1	18.5	900	Refeathering	N	N	
13/03/2025	2	-34.92388	174.27791	10:26	10:34	8	NB	H42289	R	CM	40.1	17.1	740	Downy	N	N	
13/03/2025	2	-34.92388	174.27791	10:31	!0:37	6	NB	H42290	R	EW	46.9	19.1	750	Downy	N	N	
13/03/2025	2	-34.92388	174.27791	10:41	10:48	7	NB	H42291	R	EW	44.6	18.7	770	Downy	N	N	
13/03/2025	3	-34.89961	174.27273	11:32	11:43	11	NB	H42292	R	CM	40.2	15.8	750	Downy	N	N	
13/03/2025	3	-34.89961	174.27273	11:32	11:43	11	NB	H42293	R	EW	43.6	17.8	725	Downy	N	N	
13/03/2025	3	-34.89961	174.27273	11:42	11:48	6	NB	H42294	R	CM	42.5	18.3	750	Downy	N	N	
13/03/2025	3	-34.89961	174.27273	11:46	11:51	5	OB	H45676		-	41.8	18.6	700	Downy	N	N	
13/03/2025	3	-34.89961	174.27273	11:50	11:57	7	NB	H42295	R	CM	40.8	18.4	830	Downy	N	N	
13/03/2025	3	-34.89961	174.27273	11:54	12:01	7	NB	H42296	R	EW	45.5	18.9	690	Half bare	N	N	
13/03/2025	4	-34.89613	174.18638	13:35	13:43	8	NB	H42297	R	CM	39.5	17.5	690	Downy	N	N	
13/03/2025	4	-34.89613	174.18638	13:38	13:44	6	NB	H42298	R	EW	39.5	17.9	800	Downy	N	N	
13/03/2025	4	-34.89613	174.18638	13:42	13:49	7	NB	H42299	R	CM	45.1	17.1	780	Downy	N	N	
13/03/2025	4	-34.89613	174.18638	13:48	13:55	7	NB	H42300	R	EW	41.6	18.4	730	Downy	Y	Y	
13/03/2025	5	-34.94206	174.17890	14:15	14:23	8	NB	H40902	R	CM	44.1	17.2	730	Downy midline/refeathering	N	N	
13/03/2025	5	-34.94206	174.17890	14:18	14:25	7	NB	H40903	R	EW	44.4	18.3	810	Downy	N	N	
13/03/2025	5	-34.94206	174.17890	14:32	14:40	8	OB	H33451	R	-	43	18	805	Refeathering	Y	Y	
13/03/2025	6	-35.10235	174.22842	16:17	16:23	6	NB	H40904	R	EW	42.3	18.1	740	Downy	N	N	
13/03/2025	6	-35.10235	174.22842	16:20	16:28	8	NB	H40905	R	CM	43.6	18.5	830	Downy	N	N	
13/03/2025	6	-35.10235	174.22842	16:27	16:31	4	NB	H40906	R	EW	41.2	18.3	740	Downy	N	N	8
13/03/2025	6	-35.10235	174.22842	16:35	16:41	6	NB	H40907	R	CM	45.3	18.2	880	Downy	N	N	3
13/03/2025	6	-35.10235	174.22842	16:37	16:42	5	NB	H40908	R	EW	42.6	18.4	820	Downy	N	N	
13/03/2025	6	-35.10235	174.22842	16:45	16:51	6	NB	H40909	R	CM	43.6	19	850	Downy	N	N	
13/03/2025	6	-35.10235	174.22842	16:45	16:51	6	NB	H40910	R	EW	40.5	18.4	830	Refeathering	N	N	
13/03/2025	7	-35.07718	174.09236	17:09	17:16	7	NB	H40911	R	CM	39.1	16.5	760	Downy	Y	Y	6
13/03/2025	7	-35.07718	174.09236	17:16	17:23	7	NB	H40912	R	EW	41.4	18.1	690	Downy	Y	Y	2
13/03/2025	7	-35.07718	174.09236	17:24	17:30	6	NB	H40913	R	CM	41.4	18.1	690	Downy	N	N	7
13/03/2025	7	-35.07718	174.09236	17:26	17:33	7	NB	H40914	R	EW	43.5	17.8	720	Downy	N	N	

13/03/2025	7	-35.07718	174.09236	17:31	17:38	7	NB	H40915	R	CM	42.5	18.5	930	Downy	N	N	
13/03/2025	7	-35.07718	174.09236	17:36	17:42	6	NB	H40916	R	EW	42.8	18.1	870	Downy	N	N	
13/03/2025	7	-35.07718	174.09236	17:45	17:51	6	NB	H40917	R	CM	41.9	18.2	830	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	18:10	18:18	8	NB	H40918	R	EW	41.5	17.5	830	Refeathering	Y	Y	
13/03/2025	7	-35.06856	174.07972	18:20	18:28	8	NB	H40919	R	CM	41.4	18	870	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	18:20	18:27	7	NB	H40920	R	EW	43.9	18.9	910	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	18:28	18:35	7	NB	H40921	R	CM	45.4	18.6	870	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	18:40	18:45	5	NB	H40922	R	CM	43.1	19.2	780	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	18:40	18:46	6	NB	H40923	R	EW	43.3	17.7	740	Half bare	N	N	
13/03/2025	7	-35.06856	174.07972	18:47	18:55	8	NB	H40924	R	CM	43.6	17.5	790	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	18:51	18:58	7	NB	H40925	R	EW	42.5	17.7	860	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	18:56	19:04	8	NB	H40926	R	CM	44.4	17.6	860	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	19:03	19:10	7	NB	H40927	R	EW	43.3	18.8	780	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	19:11	19:18	7	NB	H40928	R	CM	41.8	18.7	780	Downy	N	N	6
13/03/2025	7	-35.06856	174.07972	19:19	19:26	7	NB	H40929	R	EW	42.1	17.9	730	Refeathering	N	N	
13/03/2025	7	-35.06856	174.07972	19:28	19:35	7	NB	H40930	R	CM	44.7	16.7	860	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	19:35	19:40	5	NB	H40931	R	EW	43.1	19.1	815	Downy	N	N	
13/03/2025	7	-35.06856	174.07972	19:35	19:46	11	NB	H40932	R	CM	42.2	18.3	860	Downy	Y	Y	
13/03/2025	7	-35.06856	174.07972	19:48	19:55	7	NB	H40933	R	EW	42.5	19.1	820	Refeathering	Y	Y	
14/03/2025	1	-34.78687	173.98393	10:21	10:28	7	NB	H40934	R	EW	43.9	17.9	740	Half bare	N	N	8
14/03/2025	1	-34.78687	173.98393	10:24	10:34	10	NB	H40935	R	CM	39.1	16.1	700	Downy	N	N	
14/03/2025	1	-34.78687	173.98393	10:36	10:42	8	NB	H40936	R	EW	42.7	18	770	Downy	N	N	
14/03/2025	1	-34.78687	173.98393	10:41	10:49	7	NB	H40937	R	CM	42.2	18.3	790	Downy	Y	Y	
14/03/2025	2	-34.85407	174.08319	11:45	11:58	7	NB	H40938	R	EW	45.2	18.9	750	Downy	N	N	5
14/03/2025	2	-34.85407	174.08319	11:51	11:58	7	NB	H40939	R	CM	45.3	18	800	Downy	Y	Y	
14/03/2025	3	-34.88730	174.18548	12:50	12:58	8	NB	H40940	R	CM	43.6	17.8	780	Downy	N	N	
14/03/2025	3	-34.88730	174.18548	12:50	12:59	9	NB	H40941	R	EW	42.5	17.7	635	Downy	N	N	
14/03/2025	3	-34.88730	174.18548	12:57	13:04	7	NB	H40942	R	CM	43.5	17.6	820	Downy	Y	Y	
14/03/2025	4	-34.89241	174.20671	13:33	13:40	7	NB	H40943	R	EW	45.2	18.2	770	Downy	N	N	3
14/03/2025	4	-34.89241	174.20671	13:39	13:47	8	NB	H40944	R	CM	43.7	18.5	830	Refeathering	Y	Y	
14/03/2025	4	-34.89241	174.20671	13:49	13:56	7	NB	H40945	R	EW	41.1	18.3	660	Refeathering	N	N	
14/03/2025	4	-34.89241	174.20671	13:51	13:59	8	NB	H40946	R	CM	42.2	17.6	755	Downy	Y	Y	
14/03/2025	5	-34.91409	174.31678	14:16	14:25	9	NB	H40747	R	EW	41.3	18.6	700	Downy	Y	Y	6
14/03/2025	6	-34.99216	174.34226	14:58	15:06	8	NB	H40948	R	CM	45	18.2	720	Downy	Y	Y	4
14/03/2025	7	-35.05243	174.28765	15:32	15:38	6	NB	H40949	R	EW	40.3	15.5	660	Downy	Y	Y	3
14/03/2025	7	-35.05243	174.28765	15:42	15:48	6	OB	H43950		-	40.8	17.4	830	Downy refeathering	N	N	
14/03/2025	7	-35.05243	174.28765	15:55	15:59	4	NB	H40950	R	EW	44.3	19.2	730	Refeathering	N	N	
14/03/2025	7	-35.05243	174.28765	16:02	16:10	8	NB	H40601	R	CM	41.1	17.6	710	Downy	Y	Y	
14/03/2025	8	-35.13168	174.23604	17:14	17:19	5	NB	H40602	R	EW	43	17.8	700	Downy	N	N	2
9/04/2025	1	-35.02220	174.17576	8:05	8:08	3	NB	H40603	R	EW	43.3	16.9	660	Downy	N	N	
9/04/2025	2	-35.02224	174.17575	8:44	8:50	6	NB	H40604	R	CM	43.2	17.8	780	Downy	N	N	
9/04/2025	3	-34.95082	174.21277	9:07	9:14	7	NB	H40605	R	EW	42.4	18.9	760	Downy	N	N	
9/04/2025	3	-34.95082	174.21277	9;12	9:18	6	NB	H40606	R	CM	43.9	18.9	770	Downy	N	N	
9/04/2025	3	-34.95082	174.21277	9:23	9:29	6	OB	H44567	R		41.8	18.4	770	Downy	N	N	4
9/04/2025	3	-34.95082	174.21277	9:33	9:37	4	OB	H40195	L		46	19.4	720	Downy	N	N	4
9/04/2025	3	-34.95082	174.21277	9:35	9:40	5	NB	H40607	R	EW	43.4	18.2	760	Downy	N	N	4
9/04/2025	3	-34.95082	174.21277	9:40	9:45	5	NB	H40608	R	CM	44	18.2	750	Downy	N	N	5
9/04/2025	3	-34.95082	174.21277	9:45	9:51	6	NB	H40609	R	EW	42.1	17.5	660	Downy	N	N	5

9/04/2025	3	-34.95082	174.21277	9:54	9:58	4	NB	H40610	R	CM	43	17.7	740	Downy	N	N	4
9/04/2025	3	-34.95082	174.21277	9:59	10:04	5	NB	H40611	R	EW	43.8	17.6	680	Downy	N	N	6
9/04/2025	3	-34.95082	174.21277	10:08	10:14	6	NB	H40612	R	CM	43.9	17.8	810	Downy	N	N	6
9/04/2025	4	-34.94652	174.20385	10:49	10:54	5	NB	H40613	R	EW	40.5	18.6	660	Downy	N	N	8
9/04/2025	4	-34.94652	174.20385	10:52	10:58	6	NB	H40614	R	CM	43.5	18.6	720	Downy	N	N	8
9/04/2025	4	-34.94652	174.20385	10:54	11:01	7	NB	H40615	R	EW	43.8	17.1	720	Downy	N	N	8
9/04/2025	4	-34.94652	174.20385	10:54	11:05	11	NB	H40616	R	CM	44.1	17.4	720	Downy	N	N	8
9/04/2025	4	-34.94652	174.20385	11:04	11:08	4	OB	H43987	R		43.6	18.3	750	Downy	N	N	
9/04/2025	4	-34.94652	174.20385	11:11	11:16	5	OB	H38647	R		41.2	18.1	740	Downy	N	N	7
9/04/2025	4	-34.94652	174.20385	11:15	11:22	7	NB	H40617	R	CM	42.8	17.5	800	Downy	N	N	6
9/04/2025	4	-34.94652	174.20385	11:21	11:26	5	NB	H40618	R	EW	40.8	17.1	720	Downy	N	N	6
9/04/2025	4	-34.94652	174.20385	11:24	11:30	6	NB	H40619	R	CM	44.3	17.2	750	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	11:59	12:04	5	NB	H40620	R	EW	43.1	17.6	820	Downy	N	N	9
9/04/2025	5	-34.92613	174.18580	12:02	12:06	4	NB	H40621	R	CM	42.2	18.2	680	Downy	N	N	6
9/04/2025	5	-34.92613	174.18580	12:02	12:11	9	NB	H40622	R	EW	42.2	17.6	640	Downy	N	N	6
9/04/2025	5	-34.92613	174.18580	12:15	12:18	3	NB	H40624	R	CM	41.6	18.5	810	Downy	N	N	9
9/04/2025	5	-34.92613	174.18580	12:15	12:22	7	NB	H40623	R	EW	43.3	17.9	890	Downy	N	N	9
9/04/2025	5	-34.92613	174.18580	12:20	12:27	7	OB	H44482	R		40.7	16.6	710	Downy	N	N	11
9/04/2025	5	-34.92613	174.18580	12:26	12:32	11	NB	H40625	R	EW	42.7	18.6	690	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	12:30	12:35	5	OB	H40559	R		40.8	17.4	770	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	12:35	12:41	6	NB	H40627	R	EW	43.7	17.9	760	Downy	N	N	9
9/04/2025	5	-34.92613	174.18580	12:43	12:48	5	NB	H40626	R	CM	45.8	18	850	Downy	N	N	7
9/04/2025	5	-34.92613	174.18580	13:00	13:05	5	OB	H36945	R		43.9	18.5	910	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	13:38	13:46	8	NB	H40628	R	CM	43.2	17.9	690	Downy	N	N	6
9/04/2025	5	-34.92613	174.18580	13:46	13:52	6	NB	H40629	R	EW	41	17.2	640	Downy	N	N	8
9/04/2025	5	-34.92613	174.18580	13:50	13:56	6	NB	H40630	R	CM	45	18.1	760	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	13:52	13:58	6	NB	H40631	R	EW	43.9	17.1	670	Downy	N	N	6
9/04/2025	5	-34.92613	174.18580	13:56	14:02	6	NB	H40632	R	CM	40.8	17.8	750	Downy	N	N	9
9/04/2025	5	-34.92613	174.18580	14:00	14:08	8	NB	H40633	R	CM	41.3	18.1	690	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	14:00	14:12	12	NB	H40634	R	EW	41.8	17	790	Downy	N	N	7
9/04/2025	5	-34.92613	174.18580	14:07	14:16	9	NB	H40635	R	CM	40.8	18.8	760	Downy	N	N	7
9/04/2025	5	-34.92613	174.18580	14:12	14:19	7	NB	H40636	R	EW	45.4	19.1	780	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	14:20	14:25	5	NB	H40637	R	CM	42.8	19.5	750	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	14:26	14:32	6	NB	H40638	R	EW	42.5	17.7	630	Downy	N	N	
9/04/2025	5	-34.92613	174.18580	`14:33	14:39	6	NB	H40639	R	CM	42.9	18.7	710	Downy	N	N	7
9/04/2025	5	-34.92613	174.18580	14:39	14:44	5	NB	H40640	R	EW	42.6	17.6	770	Downy	N	N	
9/04/2025	6	-34.90093	174.26082	15:28	15:33	7	OB	H40798	R		41.5	18.1	840	Downy	N	N	
9/04/2025	6	-34.90093	174.26082	15:38	15:43	5	NB	H40641	R	CM	42.3	17.9	740	Downy	N	N	11
9/04/2025	6	-34.90093	174.26082	15:46	15:51	5	OB	H45251	R		42.3	17.9	890	Downy	N	N	5
9/04/2025	7	-34.90766	174.28667	16:02	16:07	5	NB	H40642	R	CM	41.5	17.4	800	Downy	N	N	
9/04/2025	8	-34.91955	174.32019	16:37	16:42	5	NB	H40643	R	EW	40.8	17.2	690	Downy	N	N	
9/04/2025	8	-34.91955	174.32019	16:40	16:45	5	OB	H31511	R		43.6	17.7	780	Downy	N	N	
9/04/2025	9	-34.96816	174.35269	17:13	17:20	7	NB	H40644	R	CM	43.8	17.6	830	Downy	N	N	5
9/04/2025	9	-34.96816	174.35269	17:16	17:23	7	NB	H40645	R	EW	44.8	17.6	800	Downy	N	N	
9/04/2025	9	-34.96816	174.35269	17:16	17:25	9	NB	H40646	R	CM	44.1	16.4	800	Downy	N	N	
9/04/2025	10	-35.00620	174.37806	17:52	17:57	5	NB	H40647	R	EW	42.7	17.6	760	Downy	N	N	
9/04/2025	10	-35.00620	174.37806	17:53	18:01	8	OB	H41811	R		43.3	17.5	770	Downy	N	N	
9/04/2025	10	-35.00620	174.37806	17:53	18:03	10	NB	H40648	R	EW	41.8	17.6	690	Downy	N	N	

9/04/2025	10	-35.00620	174.37806	17:58	18:05	7	NB	H40649	R	CM	41.8	18.5	760	Downy	N	N	
9/04/2025	10	-35.00620	174.37806	17:58	18:10	12	NB	H40650	R	EW	41.4	17.9	890	Downy	N	N	
9/04/2025	10	-35.00620	174.37806	18:09	18:16	7	NB	H40801	R	CM	40.2	17.8	740	Downy	N	N	
9/04/2025	10	-35.00620	174.37806	18:09	18:19	10	NB	H40802	R	EW	40.7	18.6	870	Downy	N	N	
10/04/2025	1	-35.25550	174.65140	11:43	11:48	5	NB	H40803	R	CM	46.3	17.1	850	Downy	N	N	
10/04/2025	2	-35.23437	174.72242	13:37	13:44	7	NB	H40805	R	EW	44.1	17.3	870	Downy	N	N	
10/04/2025	2	-35.23437	174.72242	13:41	13:50	9	NB	H40806	R	CM	44.7	17.5	790	Downy	N	N	
10/04/2025	2	-35.23437	174.72242	13:54	14:01	7	NB	H40807	R	EW	42	18.2	900	Downy	N	N	
10/04/2025	3	-35.18358	174.61672	15:20	15:26	6	OB	H42707	R		40.8	18.6	730	Downy	N	N	
10/04/2025	3	-35.18358	174.61672	15:26	15:32	6	NB	H40808	R	EW	43	17.3	790	Downy	N	N	
10/04/2025	3	-35.18358	174.61672	15:34	15:40	6	NB	H40809	R	CM	40.3	16.6	770	Downy	N	N	
10/04/2025	3	-35.18358	174.61672	15:38	15:45	7	NB	H40810	R	EW	42.1	17.7	880	Downy	N	N	3
10/04/2025	3	-35.18358	174.61672	15:41	15:50	9	NB	H40811	R	CM	43.5	18.5	840	Downy	N	N	
10/04/2025	3	-35.18358	174.61672	15:50	15:55	5	NB	H40812	R	EW	44.6	17.8	860	Downy, refeathering	N	N	5
10/04/2025	3	-35.18358	174.61672	16:11	16:16	5	NB	H40813	R	CM	42.7	17.2	810	Downy	N	N	4
10/04/2025	3	-35.18358	174.61672	16:16	16:22	6	NB	H40814	R	EW	43	17.5	800	Downy	N	N	7
10/04/2025	3	-35.18358	174.61672	16:30	16:36	6	OB	H40887	R		43.8	17.8	810	Downy	N	N	
10/04/2025	3	-35.18358	174.61672	16:30	16:40	10	NB	H40815	R	CM	44.4	17.8	740	Downy	N	N	
10/04/2025	4	-35.16331	174.57818	16:49	16:53	4	NB	H40816	R	EW	43.9	18.5	760	Downy	N	N	
10/04/2025	4	-35.16331	174.57818	16:52	16:58	6	NB	H40817	R	CM	44.5	18.8	790	Downy	N	N	
10/04/2025	4	-35.16331	174.57818	16:59	17:04	5	NB	H40818	R	EW	43.9	17.8	800	Downy	N	N	6
10/04/2025	5	-35.15542	174.56329	17:10	17:16	6	NB	H40819	R	CM	42	18	680	Downy	N	N	
10/04/2025	5	-35.15542	174.56329	17:16	17:21	5	NB	H40820	R	EW	42.9	18.1	700	Downy	N	N	5
10/04/2025	5	-35.15542	174.56329	17:20	17:26	6	NB	H40821	R	CM	42.4	18.7	700	Downy	N	N	4
10/04/2025	5	-35.15542	174.56329	17:25	17:31	6	NB	H40822	R	EW	40.9	16.9	830	Downy	N	N	
10/04/2025	5	-35.15542	174.56329	17:32	17:40	8	NB	H40823	R	CM	41.8	18.7	810	Downy	N	N	
10/04/2025	5	-35.15542	174.56329	17:37	17:50	13	NB	H40824	R	EW	43.2	18	800	Downy	N	N	
11/04/2025	1	-35.13734	174.35524	7:36	7:39	6	NB	H40825	L	EW	42.6	18.1	NT	Downy	N	N	
11/02/2025	1	-35.13734	174.35524	7:49	7:54	6	NB	H40826	R	CM	41.9	18.5	NT	Downy	N	N	

APPENDIX 2

Seabird species recorded during trips (compiled by Cathy Mitchell)

Figure 26. New Zealand and Wilson's storm petrels foraging behind the boat at one of the capture stations. Photo: Edin Whitehead.

January 9 – 10

White-faced storm petrel, Wilson's storm petrel, NZ storm petrel, Cook's petrel, black petrel, grey faced petrel, flesh-footed shearwater, Buller's shearwater, fairy prion, little shearwater, Antipodean albatross (likely Gibson's albatross), white-capped mollymawk, Salvin's mollymawk.

February 20 – 21

White-fronted tern, Arctic skua, fluttering shearwater, Australasian gannet, white-faced storm petrel, NZ storm petrel, black petrel, Cook's petrel, Buller's shearwater, flesh-footed shearwater, pied and little shags, little penguin.

March 13 – 14

White-faced storm petrel, NZ storm petrel, Wilson's storm petrel, black petrel, Cook's petrel, flesh-footed shearwater, Buller's shearwater, white capped mollymawk, northern royal albatross, Antipodean albatross.

April 10 – 11

Wilson's storm petrel, NZ storm petrel, black petrel, Cook's petrel, grey-faced petrel, fairy prion, flesh-footed shearwater, Buller's shearwater, Salvin's mollymawk, white-capped albatross, Antipodean albatross, pied and little shags, and little penguin.