



Friends of Mana Island

SECOND TRANSFER OF WHITE-FACED STORM PETREL

(Pelagodroma marina maoriana, Rōrō, Takahikare-moana)

**CHICKS FROM HOKOREREORO/ RANGATIRA/ SOUTH EAST ISLAND
TO MANA ISLAND IN FEBRUARY 2020**

SUMMARY REPORT



Prepared for Friends of Mana Island by Cathy Mitchell and John McKoy

March 2020

Introduction

The white-faced storm petrel is a small (45g) seabird with prominent nostrils encased in a tube. The legs are long and are used to skip or patter along the sea surface as the birds look for zooplankton.

In New Zealand small colonies of white-faced storm petrels (WFSP), 100 to a few thousand pairs, are present on many northern NZ islands as far south as New Plymouth and the Bay of Plenty, also Sentinel Rock (Cook Strait), Motunua (Canterbury) and islands around Stewart Island. Approximately 10,000 pairs breed on Hongiora Island, Aldermans but their main stronghold is Hokoreoro/Rangatira/South East Island (SE Island) in the Chathams where 840,000 pairs have been estimated to breed.

Mana Island Scientific Reserve has been the focus of restoration work for over 25 years. Introduction of burrow nesting seabirds has been identified as a key task, (*Mana Island Ecological Restoration Plan*, Miskelly 1999), to aid in the establishment of a fully functioning ecosystem. Seabirds contribute fertility via guano and regurgitations, impact the ecosystem by trampling and burrowing and provide microhabitat for other species such as herpetofauna and invertebrates. The restoration of seabird colonies has already commenced with previous translocations of diving petrel, fluttering shearwater and fairy prion. A remnant colony of sooty shearwater is also present on the island.

A small number of WFSP (< 4 pairs) have been found breeding on Mana Island. Recruitment rate of additional birds of this species to Mana Island is likely to be low as there are no significant colonies nearby. The waters of the Cook Strait are considered to be potentially a good feeding ground for this species which was likely to have been present in the region in the past. The current translocation aims to boost the number of WFSP present on Mana Island with the long-term goal of establishing a self-sustaining population.

It is proposed to achieve this by the transfer of up to 250 chicks over a three year period from SE Island to Mana Island. Forty-eight chicks were transferred in 2019 - the transfer was very successful with 98% of transferred chicks fledging successfully. This report is a summary of the outcome of the second chick transfer undertaken in February 2020.



An adult white-faced storm petrel feeds at sea – Photo: John Kyngdon

Chick collection and transfer

Measurements of 50 WFSP chicks were taken on January 25th by Chatham Island DOC staff present on SE Island. The goal was to determine the optimal date for chick transfer. The data collected were used to predict the peak fledging time of WFSP chicks from SE Island in the 2020 season. The optimal time for chick collection was estimated to be from February 18th to February 24th and the trip timing was planned accordingly.

A collection team of two Chatham Island DOC staff, the FOMI project manager and three FOMI volunteers arrived on SE Island on February 13th. The first three days on the island were spent locating WFSP burrows, checking for the presence of chicks and measuring all chicks found (weight and wing length measured). Two flags were placed on the burrows of short-listed chicks that potentially could meet the selection criteria for transfer.

Selection criteria were set to obtain chicks of good weight that were 1 – 3 weeks away from fledging. The timing of the trip worked well with good numbers of chicks short-listed for potential transfer. Chick weights were higher than those of chicks in the previous year. The short-listed chicks were re-measured the day before collection, February 17th, and a list of 100 chicks to be collected for transfer was drawn up.

On transfer day, February 18th, the selected chicks were collected from their burrows and placed into corflute boxes (25 boxes, each containing 4 chicks). The chicks were then transported to the DOC base on Chatham Island by boat (Owenga Charters) and utility vehicle (DOC). The chicks were fed that evening with assistance from the collection team and DOC staff. Several members of the local community took the opportunity to see the chicks being fed. The chicks were then left in a cool, quiet place overnight.

The following day the chicks were flown to Wellington Airport (Air Chathams). From there they were flown by helicopter (Wellington Helicopters) directly to Mana Island landing close to the seabird site above the southwestern cliffs of the island.

Following a formal welcome led by Ngati Toa each chick was weighed, fed and placed in an individually numbered burrow. The burrows were blocked so that chicks were held in the burrow for a settling-in period. The burrows had been newly installed prior to the arrival of the chicks at a site that was considered to be ideal for WFSP – a flat site under canopy similar to locations used by this species on SE Island and at other sites.

Chick rearing and fledging on Mana Island

Chick rearing proceeded uneventfully. Chicks generally coped well with the artificial diet and weights were good. Burrow blockades were removed on an individual basis as the chicks approached fledging. The first blockade was removed on the third day following the arrival of the chicks, with the majority removed at 7 – 10 days after arrival.



A recently transferred chick is fed a sardine smoothie using a crop tube and syringe.

Two chicks were euthanased by a veterinarian following the discovery of a leg fracture in each of these chicks. Leg fractures have been previously identified as a risk when handling these small fragile chicks and steps were taken to mitigate the risks identified to prevent further injuries.

All other chicks coped well with the transfer and feeding processes, and 98 chicks successfully fledged from Mana Island. Chicks fledged from 1 to 10 days after their first emergence, with a mean emergence period of 3.5 nights. The first chicks to fledge left on the night of February 24th and the last 2 chicks to fledge left on the night of March 10th. Chicks were on Mana Island for a mean of 11 days (range 4 - 20 days). Chicks had a mean fledge weight of 47g (range 39 – 55g) and a mean fledge wing length of 148mm (range 139 – 157mm). Emergence periods were longer (+2.5 days) and chick fledging weights were higher (+4g) than those recorded for chicks fledging from Mana Island in 2019. This is believed to be as result of recommendations that were actioned following the 2019 transfer.

Stakeholder and community involvement

Key stakeholders for the WFSP project include Friends of Mana Island (FOMI) and Department of Conservation. FOMI secured funding, with OMV NZ as the Principal Sponsor, and has undertaken project management of the translocation.

The translocation was approved and well supported by Moriori and Ngati Mutunga of the Chatham Islands. Both groups were involved at various stages in the transfer of the chicks. Representatives from Moriori (Cassidy Trafford) and Ngati Mutunga (Iwiroa Wairua) were on the boat that collected the chicks from SE Island and they also escorted the chicks on the flights to Mana Island. The welcome and blessings on Chatham Island were led by Kathy Daymond of Ngati Mutunga.

DOC Chathams made a posting on their Facebook page with a time that locals could come and see the chicks while they were being fed on the evening of February 18th at the DOC base. A number of school children, their parents and other interested parties took the opportunity to see the chicks, approximately 25 people in total.

On arrival at Mana Island the chicks were carried by hand and placed in a shaded area. A group of approximately 40 people were present for the occasion, including representatives from Ngati Toa, Moriori, Ngati Mutunga, FOMI, DOC, OMV NZ and media. A short welcome ceremony, led by Ngati Toa, was followed by an opportunity for those present to see the chicks being fed and placed in their new burrows.



The chicks arrived on Mana Island by helicopter.

A chick is shown to those present for the welcome on Mana Island.

During the rearing period there were a number of visits to Mana Island by members of the public. These groups included 3 guided day visits (run by FOMI) and a group carrying out research on Mana Island. Members of these groups were given the chance to visit the site and observe the chicks being fed and all appeared to appreciate this opportunity.

As with the 2019 transfer, the input of volunteers from FOMI and the local community has been invaluable in ensuring the success of the project. Tasks completed with volunteer assistance include: preparation of the burrows and burrow site, ensuring that equipment was organised ready for the arrival of the chicks, chick collection, chick food preparation, chick feeding and organisation and preparation of food for the feeding team.

The progress of the translocation and the fledging of the chicks were posted regularly on the Mana Island Facebook page.

Summary of the Year 2 translocation

One hundred white-faced storm petrel chicks were translocated from Hokoreoro/ Rangatira/ South East Island to Mana Island in February 2020. Chicks appeared to cope well with the transfer and feeding processes. Ninety-eight of 100 WFSP chicks (98%) fledged successfully from Mana Island, after a mean period of 11 days on the island. Chicks fledged at similar weights and wing lengths to those recorded for naturally reared chicks on Burgess and Whero Islands.

A comprehensive report, including technical details and recommendations for future transfers, will be written and circulated to all interested parties.