



Places for Penguins

a Forest & Bird Wellington Branch project



Forest & Bird

TE REO O TE TAIAO
Giving Nature a Voice

Newsletter

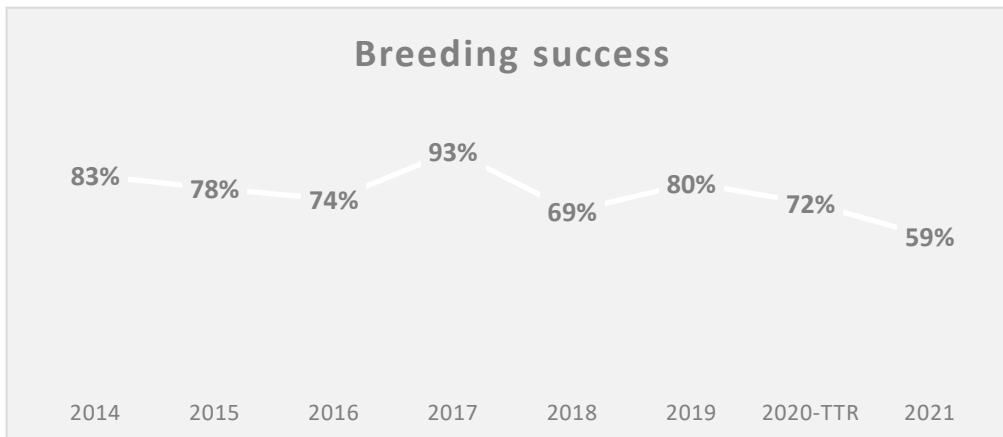
Winter 2022

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BREEDING REPORT FOR 2021-2022 SEASON

Last year's breeding season was the worst we have had in terms of breeding success, which is a measure of the proportion of chicks fledged by eggs laid. In total, only 60% of the eggs were successfully incubated, hatched and raised to fledged chicks (see Graph 1).



Graph 1. Breeding success (chicks fledged by eggs laid) in each season from 2014 to 2021.

We decided to have a closer look into separate areas of Wellington to see if there was any significant difference between them (Table 1). The bays in the Miramar Peninsula had the highest success in terms of hatching, fledging and breeding success altogether. Oppositely, Tarakena Bays and Moa Point in the South Coast

East had the lowest. The Harbour Bays had a really good fledging success, meaning that after the eggs hatched, the parents were really successful in feeding chicks until they fledged.

	Harbour Bays	Miramar Peninsula	South Coast East	South Coast West
Eggs laid	23	22	30	34
Eggs hatched	16	22	19	22
Chicks fledged	15	19	13	17
Hatching success	70%	100%	63%	65%
Fledging success	94%	86%	68%	77%
Breeding success	65%	86%	43%	50%
Number of nest boxes	31	41	31	35
Nest boxes used for breeding	12	11	13	17
Proportion used for breeding	39%	27%	42%	49%

Table 1. Summary of breeding statistics for the season of 2021 – 2022. Harbour Bays represents Balaena Bay, Greta Point, NIWA and Evans Bay Marina. Miramar Peninsula represents Shelly Bay, Kau Bay, Mahanga Bay and Karaka Bay. South Coast East represents Tarakena Bays and Moa Point. South Coast West represents Island Bay, Ōwhiro Bay and Tapu Te Ranga Island.

The data collection for the 2021 season has generated meaningful information about the population size and breeding success of kororā across these 14 colonies, which we can use to compare with previous and future seasons. Tagging the adults and chicks in colonies where they presently are not being tagged will enable us to understand adult survival and return rates of adults across a wider scope of our project. Soon tagged chicks from our original four bays will also start returning adding to the information about these populations.

TAGGING REPORT

We have tagged 60 adults and 25 chicks so far, which represents about 50% of the monitored adult population around the Wellington Coast. Our pilot project was very successful last year, microchipping kororā across 5 of our bays: Karaka, Tarakena East and West, Moa Point, and Island Bay). This year, we are expanding tagging to the Harbour Bays – Balaena, Greta Point, NIWA and Evans Bay. We have already managed to tag most of the adults from these new bays, but we still need to catch the ones frequenting NIWA during the day.

All the volunteer groups for the tagging bays now have their monitoring phones and microchip readers, and are getting familiar with scanning all kororā found in their nest boxes. All the information collected about the tagged birds is stored on the monitoring phones, in a library called Bird ID. When you select a bird from the list, you can see the sex, age, date when the kororā was tagged, and which nest box it was occupying. It is a possibility that next year we may find some of the chicks we microchipped returning to their natal sites. If you are a volunteer in Wellington and scan a kororā that is described as a chick, let the taggers know as they need to do some bill measurements to sex the individual.

All our data are now shared with the Department of Conservation in the FALCON Bird Banding System website (<https://app.birdbanding.doc.govt.nz/>). In order to access it, you will need to have a login and password. That can be requested by email - falcon@doc.govt.nz. Once you have access, you can view the kororā by doing a quick search by Project (Places for Penguins) or searching for an individual bird on an advanced search.

PLACES FOR PENGUINS WORKING TOGETHER WITH WELLINGTON ZOO

Recently, the Places for Penguins Management Committee had a meeting with the vet team from The Nest/Te Kōhanga Wellington Zoo about working together to protect our kororā. This meeting was attended by Kirsten Anderson who is the senior veterinarian at the zoo, and was joined by resident vet Shelly Butcher, and vet technician Carina Waldron. It was great to see the enthusiasm from the whole team and begin to form a deeper relationship working together to better understand Wellington kororā.

As Wellington Zoo is an important rehabilitation centre for wildlife, they often get contacted about sick or injured kororā that they then take in and treat in the hopes of releasing them back into the wild. Our partnership with the zoo will be an important part of our tagging work, as microchipping rehabbed kororā before they are released can provide the opportunity for us to conduct post-release monitoring. It will help us understand why some of our kororā end up in rehab, and whether measures can be put in place to help lower the chances of further injuries to kororā occurring.

Pictured below committee member Kat from Places for Penguins with vet technician Sophie Manson after tagging a kororā at The Nest/Te Kōhanga before release



As well as microchipping live kororā, the PFP Committee and Te Kōhanga's vet team discussed the possibility of undertaking necropsies on kororā found around Wellington's coast. Necropsies will help us to identify the possible cause of death for individuals (i.e. car strike, dog attack, starvation, or disease). Knowing the cause of death will mean we can better advocate for, and mitigate the risk to, kororā with the collaboration of Wellington City Council and DOC, preventing further deaths occurring around our coastline. We are so thrilled to have the vet team at Wellington Zoo aid us in protecting kororā around Wellington. We are really looking forward to what the future of this relationship may hold, thanks to everyone who attended the meeting!

VUW SOCIETY FOR CONSERVATION BIOLOGY CLUB UPDATE

Part of the global Society for Conservation Biology (SCB) organisation, our Te Herenga Waka/Victoria University of Wellington-based chapter is the only chapter present in New Zealand. We run volunteer projects and events throughout the Wellington region, one of them being Places for Penguins in Island Bay. As part of this project collaboration, we provide assistance with nest box monitoring and pest mammal trapping along Island Bay on Wellington's south coast. As part of a wider executive for the club, students are elected to their positions. This year's SCB project leaders for Places for Penguins are Alysha McKillen and Hannah Ryall. A little bit about ourselves;

I'm Alysha! I have recently completed my undergraduate degree in Marine Biology and now work in a corporate job in Wellington. I've loved getting involved in SCB and this project ever since I started my degree 3 years ago and have been keen carrying on as it is a great change of scenery from the office environment. I get such a great fulfilment out of knowing that our effort every week is helping collate data to help our kororā.

Hi, I'm Hannah and I am currently doing a Bachelor of Science at Victoria University of Wellington. I am in my second year of a double major in Marine Biology and Environmental Science. I have always loved the environment, with the ocean being my main interest. I am a keen diver and have had volunteer opportunities in surveying and monitoring both in NZ and overseas. I am new to being a co-leader this year but I am excited to refine my skills in a new area of conservation by supporting PFP.

Our current mission is to get our participation numbers up, as well as creating opportunities for our student members. In the upcoming Clubs Expo at the university, we are hoping to gain some keen volunteers to join our circle. We are also gaining interest from our club members for kororā monitors and to be trained in trapping, which can provide us with more volunteers to help us run Island Bay smoothly.

SCB - Hannah and Alysha

HENDERSON GRANT APPLICATION

In 2021, we began what seemed a huge task of being able to individually identify all the kororā that reside on Wellington City's south coast, from Baelena Bay through to Ōwhiro Bay. This would be no easy feat for the Committee to plan logistics, gain the necessary permits, relevant training, and, of course, ensure our volunteers were onboard to help us carry out the task at hand. Whilst we had the support of New Zealand Penguin Initiative to get the project off the ground, we would eventually need additional funds to obtain more resources to expand our project and cater to our 50+ volunteers.

Earlier this year Places for Penguins was fortunate enough to be successful in receiving the Perpetual Guardian Henderson Conservation Trust grant. We were awarded, in full, our request of \$9220.39 which was designated for us to obtain further resources to carry out an expansion of the kororā monitoring operations around the Wellington coastline. These funds were spent on purchasing more Gallagher EID Tag Readers (transponder wands) which are used to scan the Passive Integrated Tags (PIT) that are inserted into the dermis of the penguins, enabling each unique penguin to be identified as an individual. This is particularly useful when identifying breeding pairs and their chicks. We can now build a picture of lineage, fecundity (breeding success), population growth (survival), and site fidelity of chicks (individuals returning).

Earlier last year, we successfully applied for a variation in our Wildlife Act Authority (the permit that allows us to monitor kororā in nest boxes) to include both individual marking through PIT tag insertion and monitoring natural nest sites. To be able to monitor natural nest sites we brought a high tech, custom built burrowscope that will reach into those difficult to observe places, capturing images and videos. We are extremely excited to get this item and take a sneak peek into the private life of korora outside of nest boxes.



In addition to the transponders, we were able to buy more smart phones so that data obtained during monitoring of tagged bays could be properly stored. We also brought more rechargeable batteries and chargers for our motion-trigger trail cameras, so that there were plenty to go around without having to wait for them to charge before reuse. Furthermore, we purchased some items that we could use for advocacy such as cuddly penguin toys and inking stamps, to be used at events or educational talks. Overall, having more equipment has meant we have been able to cover the region more efficiently and capture data across multiple sites at any one time. We are truly grateful for the Henderson Grant, which has enabled us to continue our kororā journey.

Text and photos by members of the PfP management team, except where otherwise credited.

Thanks to all our partners and supporters: Wellington City Council, Greater Wellington Regional Council, the Department of Conservation, the Society for Conservation Biology group at Victoria University, Conservation Volunteers of New Zealand, Weta Digital, Tumbleweed Tees, Sue Dasler Pottery, and the Nikau Foundation.

