Wellington City Council Forest and Bird- Places for Penguins Penguin Detection Report

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Introduction

The coastline of Wellington, from Balaena bay to Te Kopahau carpark, was surveyed for the presence and distribution of little penguins by Alastair Judkins using a specialized little penguin detection dog, named Mena. Both Alastair and Mena are fully certified by the Department of Conservation, Conservation Dog Programmed as a Protected Species Detection Dog Team.

Methods

Surveys were conducted from 16 - 21 September, 2021, for a total of 6 days of surveying, with an additional day spent collating and organizing data for this report.

The team worked in the areas of Balaena bay to Shelly Bay on the 16th, Shelly Bay to Karaka Bay on the 17th, Karaka bay to Wahine Memorial Park on the 18th, Wahine Memorial Park to Lyall Bay on the 19th, Lyall Bay to Houghton Bay on the 20th and Houghton Bay to Te Kopahau carpark on the 21st of September. Where possible and practical the hillside of the survey areas was also searched

The area of buildings and shoreline of Shelly Bay were not surveyed due presence of protestors who opposed the survey for little penguins by the team. I communicated with Taranaki Whanui (PNBST) that any confrontation directed at either myself or the dog would signal the cessation of the survey. This was agreed upon with full understanding.

As requested, penguin sites were marked with spray painted "K" and flag tape where spray paint was not feasible.

Data were collected using a custom-made application designed using the programme CyberTracker and installed on a Samsung tablet with a waterproof

protective casing. At each penguin site, data were collected on the GPS location of the site, date, time, percent cloud cover, wind direction, wind strength, whether it was raining (Yes/No), detection type, site type, and if there were any adults, chicks and/or eggs confirmed present. A hand-held torch was used to locate burrows and to identify if penguins were in residence at the time. Extra notes were also recorded when needed.

Data were downloaded onto a laptop computer at the end of each day and the data extracted and converted into an Excel spreadsheet with all the data for each site detected (Appendix I).

Results

In total,152 sites were detected by Alastair and the dog. An Excel spreadsheet with all the data for each survey area is included as Appendix I.

Sites were predominantly detected by the dog, and occasionally by Alastair. The dog indicated by either showing interest, sitting, pointing or a combination of indication types.

Sites identified ranged from penguin nests, coastal entry point trails, to sites where the dog gave strong indications, but the conditions of the terrain or vegetation limited detailed investigation.

Some sites had penguins visible, and some were identified as having eggs and chicks. Many sites were identified as burrows or probable established sites, but the end of the burrow was out of view, so it was not possible to confirm if a penguin was in residence at the time.

The type of habitat that penguin sites were detected was varied. These included riprap walls, breakwaters, shoreline caves and crevices, natural burrows in shoreline banks, natural burrows in coastal scrub/flax, nest boxes, concrete structures and under canoes

Areas with especially high concentrations of penguin sites included the riprap wall of Point Halswell, Karaka and Scorching Bays, and Lyall Bay boulders close to the beach.

Most boulder and riprap walls in the area were hot spots for penguin activity

Areas with no or very low concentrations of detected sites included the main Lyall Bay Beach, Island Bay. Details for each area are provided below.

Day 1:

In total, 31 sites were identified on September 16th.

There were adults sighted on 14 sites and at 3 sites eggs were sighted. There were 10 sites with adults seen that may have been sitting on eggs but were not disturbed to confirm.

Site #11, at the Evan's Bay sailing club, seemed to have been partially dug out by a dog.

It was unfortunate to see that a known breeding site on Cobham Drive had been sealed off by boulders, gravel and, ironically, a predator trap after years of monitoring and huge effort and expense to protect it, only for the nest to be blocked up in the final stages of the project. (see photo below).



Day 2: Shelly Bay to Karaka Bay

In total, 33 sites were identified on September 17th. There were adults sighted on 14 sites. No eggs were sighted. There were 14 sites with adults seen that may have been sitting on eggs but were not disturbed to confirm.

Not all of the nest boxes on Kau Point were inspected as many were occupied and identified as being site presumably already know. This was done to maximise search effort for unknown natural sites.



Day 3: Karaka Bay to Tarakena Bay

In total, 26 sites were identified on September 18th.

There were adults sighted on 7 sites. No eggs were sighted. There were 5 sites with adults seen that may have been sitting on eggs but were not disturbed to confirm.



Day 4: Tarakena Bay to airport tunnel

In total, 23 sites were identified on September 19th.

There were adults sighted on 8 sites. On 6 sites eggs were sighted. There were 2 sites with adults seen that may have been sitting on eggs but were not disturbed to confirm.



Day 5: Airport tunnel to Houghton Bay

In total, 28 sites were identified on September 20th.

There were adults sighted on 5 sites. On 2 sites eggs were sighted. One site had 2 eggs but no adult present. There were 4 sites with adults seen that may have been sitting on eggs but were not disturbed to confirm.



Day 6: Houghton Bay to Te Kopahau carpark

In total, 11 sites were identified on September 21st.

There were adults sighted on 4 sites. No eggs were sighted. There were 3 sites with adults seen that may have been sitting on eggs but were not disturbed to confirm.



In a nest box, site #147, a female white flippered penguin (*Eudyptula minor albosignata*) or hybrid, was found to be in a nest with a regular little blue. The white flippered penguin is a subspecies of little blue which is predominantly found in Canterbury on Banks Peninsula and Motunau island, though the Penguin Detection Team have also found individuals in Kaikōura, Wellington Harbour, Golden Bay and Kaiteriteri.



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