

Great Barrier Island Black Petrel Survey, 26th- 30th Jan 2023 Trip Report For Oruawharo Medlands Ecovision

Summary

Eleven active burrows were found by the team (Joanna, Rua and Miro), with seven of these most likely to be breeding burrows (of these, two chicks were seen, and one abandoned egg was found in a burrow so is a failed breeding attempt) See Table 1 for details, and maps for locations; GPX files with my waypoints and tracks, and photos have been sent separately. There could be more burrows here as this was not an extensive search. The most predominant place burrows were located were deep inside puriri trunks or in rocky crevices, that would be nearly impossible to locate without a dog.

Trip Details

24th-25th January, 2nd-3rd February: Travel Days

26th January

Tony Lyon property and DoC administered land

Met Tony and walked up with him, through his property up into public conservation land, to the base of Mount St Paul to approximately 300m a.s.l. Four active burrows were found by the dogs.

27th January - Rainy Day

28th January

Visited Murray Staples on his property and spent a couple of hours looking at potential areas where he thinks he has heard them. No birds found. I have no doubt he has them on or near his property.

29th January

With Lotte, went to the Needles Rocks area.

Five active burrows were found in this area above the road.

30th January

I revisited the Needles Rocks area and found 2 more burrows further around.

Summary

Unfortunately the weather was against us this trip but despite this we managed to get out and survey some sites. There are definitely breeding birds around Mount St Paul and the Needles rocks, so I would assume that there are more around in between these areas. Most of these areas will have low density of burrows compared to Hirakimata but excellent to confirm they are lower down and scattered around the areas surrounding Medlands. Accessibility and weather were the limiting factors this trip but at least active and breeding burrows were confirmed. This was not a methodical or systematic survey as was based on local knowledge, local access, and knowing where petrels are usually found and using dogs to find them. This is the best approach for determining presence/absence but not for abundance or density.

Unfortunately pig sign was evident in all areas that were searched. If they can access the burrow, pigs definitely would eat the burrow contents. The birds in long puriri logs are probably safe from most pigs but not cats. Birds in burrows dug into the soil/roots are more vulnerable to pig rooting. This could possibly explain why most burrows found on this trip at these elevations are in deep puriri trunks (there are not many pigs up at Hirakimata, and there are more soil/root dug burrows (my observations)). Although this

could also be a combination of less mature forest and suitable take off sites at lower elevations combined with higher pig and cat numbers lower down.

Concluding thoughts

If people are interested, I would encourage them to listen to the ground calls of the male black petrel, a “clacking” sound and to differentiate between this and the variety of calls Cooks petrels make on the wing. I have found that many people hear Cooks petrels in the air and assume it is a black petrel. Often Cooks call on the wing but don’t actually land so are not such a reliable indicator of where the burrows are. The “clacking” call of the black petrel on the other hand represents a male calling from the ground near his burrow (this could be a bachelor looking for a mate or a breeding bird calling in his mate).

When the petrels fledge in April-June, they are most vulnerable to predator attacks as they are often on the ground, and easily get lost if they do manage to get airborne. This is a time they are likely to fly into buildings, being easily disorientated by lighting at night. This may explain why Murray has seen a few on the ground at his place, as we now know there is a small breeding colony across the road and they tend to fly east when they leave the natal site. It maybe worthwhile checking out the Westland black petrel work near Punakaiki where they have worked to reduce street and building lighting during the fledgling period.

Anecdotal reports of black petrels found near generator sheds also explain why they are sometimes near buildings – the sound of the generator is possibly a similar enough noise to a calling bird and as a result can attract birds.

Black petrels come back to the colonies sometime in October to clean out their burrows and either reunite or find a mate. This could be a really good time to listen out for them. Ideally listeners would be out on a high point on a still night with a compass, and take a bearing of the direction of the call(s) (if trying to locate/determine a burrow area/numbers). The dates are not definite so would require someone to hear the initial calls then start some listening. However this is just a nice to do to give you an idea of active petrel sites.

If resources allow, it would probably be worthwhile trapping for cats – especially in autumn/winter months (fledgling time but also higher capture rates) around the Needles. The pigs ideally would not be there but I realise this is an ingrained hunting and food gathering exercise that goes far beyond my suggestions.

Rats are a general biodiversity problem, but probably not such a threat to black petrels compared to cats or pigs. Rats and cats absolutely devastate Cooks petrels which are much smaller birds. Rats are in such high numbers on Aotea, I am not sure if it would be worth your efforts to control them for petrels. However if you were to, then it can only encourage biodiversity in the area and possibly Cooks would return eventually as they are definitely flying around and landing. Normally Cooks and black petrel burrows are intermingled. The Needles area could be a good site for predator control and monitoring, as it is relatively easy access from the road. Bird aversion too needs to be encouraged especially for those easily accessible areas.

Acknowledgements

Thank you for organising to get me out here and for wanting to know about and protect the remnant black petrel colonies on the island that are away from the main breeding colony on Hiramakimata. A big thank you to Frances and Kim Bannister for their accommodation, warm hospitality, and welcoming the dogs. Thanks to Tony Lyon and Murray Staples for guiding us and access through their land.



Burrow	Area	Description	Burrow type
BP01	DOC above Tony Wyon	Active. Fresh white guano. No bird seen. Suspect non-breeding bird	Puriri
BP02	DOC near St Paul	Breeding burrow. Small chick alone seen inside long trunk	Puriri
BP03	DOC near St Paul	Breeding burrow. Adult seen sitting tight, deep inside hollow. Green guano.	Puriri
BP04	DOC near St Paul	Active. Dog indication. No bird seen. Old poo. Lots of cavities.	Puriri
BP05	Needle Rocks	Active. Dog indication. No bird seen. Fresh poo. Feather seen	Under rock
BP06	Needle Rocks	Breeding burrow. Adult and chick seen.	Under rock
BP07	Needle Rocks	Active. Cold petrel egg found in cavity. Guano also inside. Very big. Could not see everywhere.	Puriri (vertical)
BP08	Needle Rocks	Adult seen sitting tight. Short burrow. Assume on egg or chick.	Burrow amongst soil and kiekie roots at base of rocks
BP09	Needle Rocks	Adult seen sitting tight, way back. Narrow entrance burrow. Assume on egg or chick.	Rocky crevice burrow
BP10	Needle Rocks	Active. Fresh guano x 2. Lots of scent. Looked like shallow burrow. No bird seen. Could be take off site as well.	Astelia soil burrow amongst high rocks
BP11	Needle Rocks	Adult bird seen sitting tight. Very long way inside base of rata. Assume on egg or guarding chick	Rata

Table 1: Description of burrows found by the dogs



Figure 1. Aerial view showing locations of active black petrel burrows around the Needles rocks

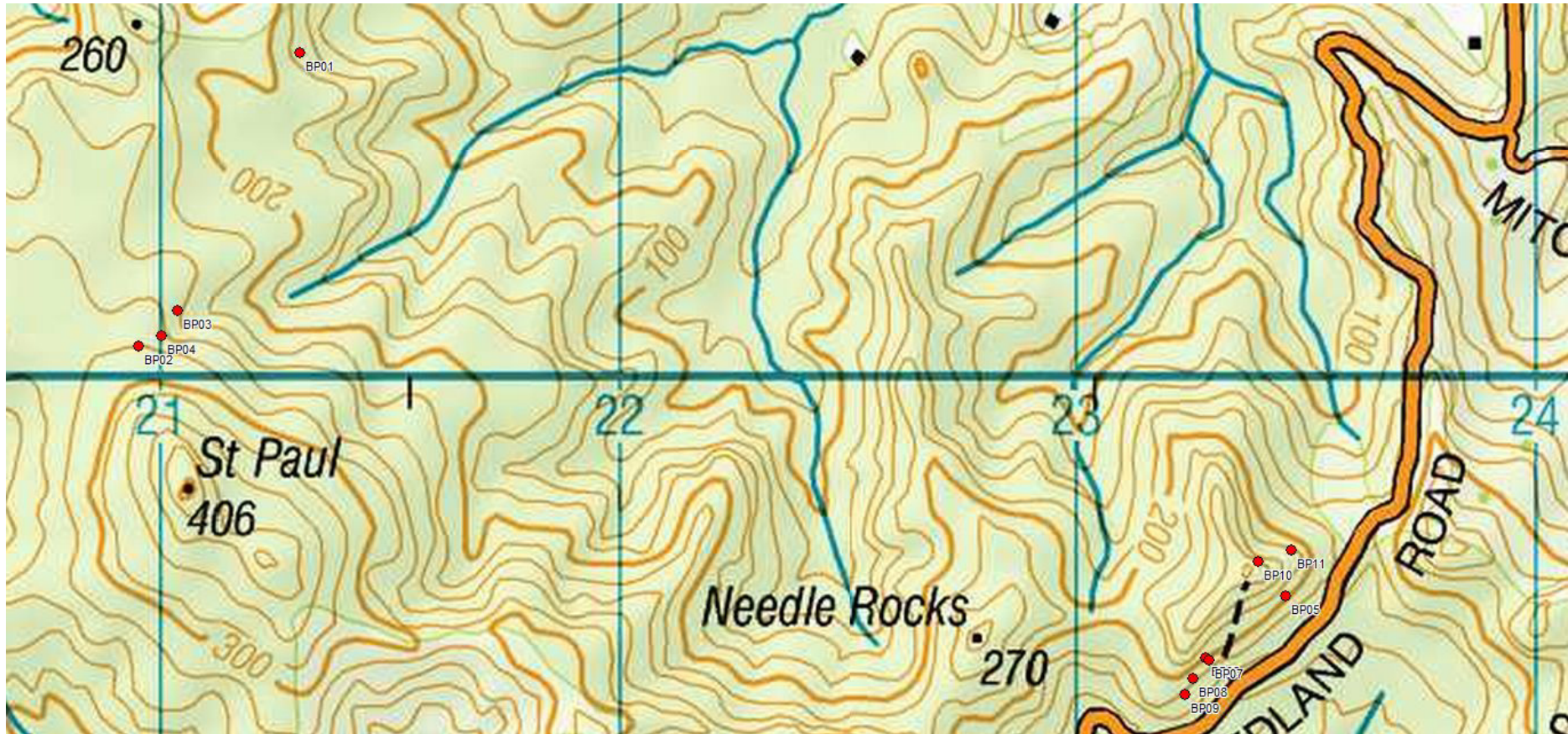


Figure 2: Topographical map showing locations of the eleven burrows found.

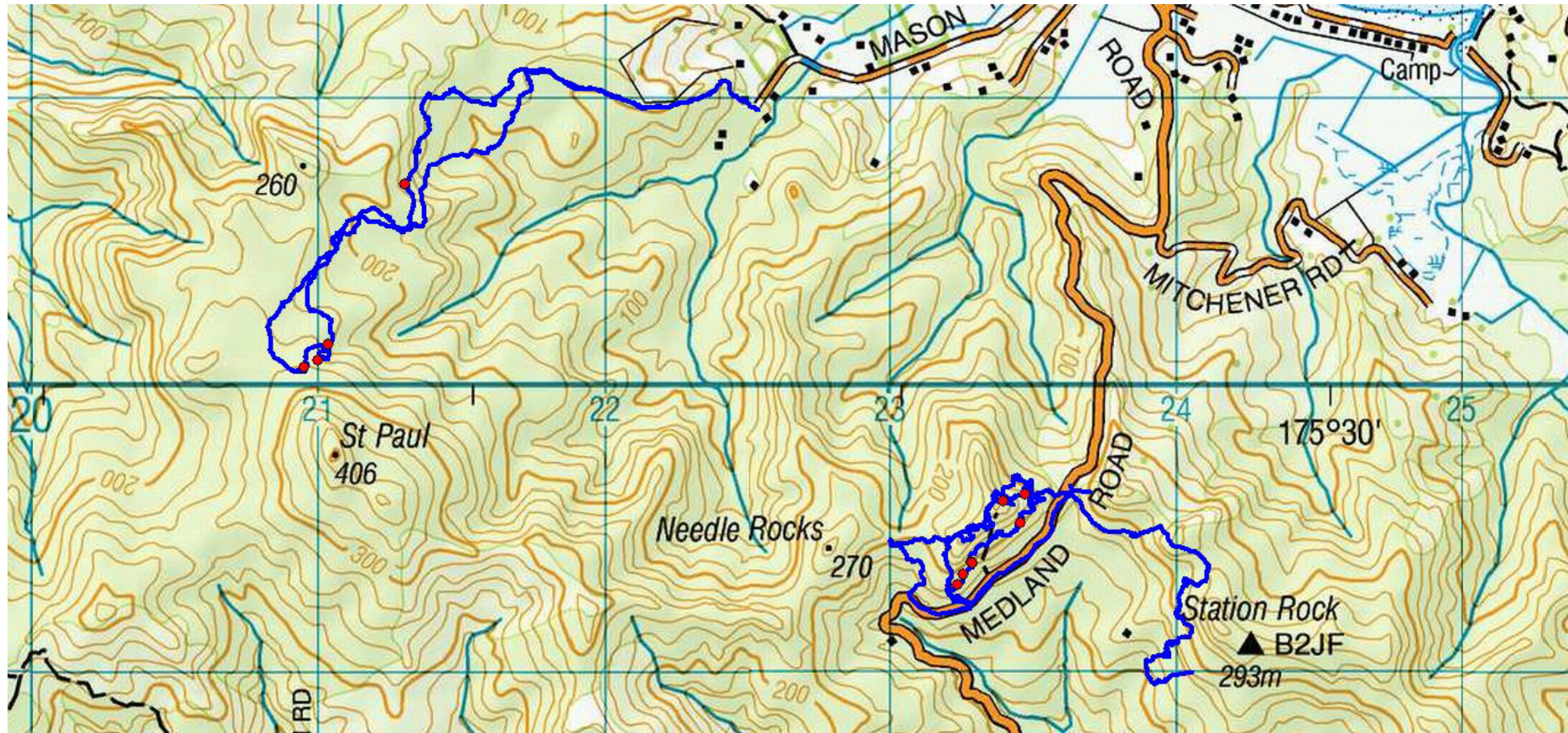


Figure 3: Showing my tracks when searching. Obviously the dogs had a wider track and range than this.