

Changes in dog sightings at Tahuna Torea Nature Reserve

May 2024

Abstract

This is a follow up study monitoring the presence of dogs at Tahuna Torea Nature Reserve, where dogs are prohibited to protect local wildlife. Using a motion activated wildlife camera, data was collected over a 15-day period to understand the frequency of dog-related incursions. This data is compared to a previous 15-day monitoring period.

Introduction

Tahuna Torea Nature Reserve in Auckland is an ecologically sensitive area with a diversity of native birds and other wildlife. To protect these species, the reserve strictly prohibits dogs. However, local residents who care for the reserve regularly have to remind dog owners of the rules. This study aimed to document instances of dogs within the reserve and evaluate visitor adherence to regulations, particularly following the installation of additional dog restriction signage added 30 January 2025. Cycling is also prohibited to avoid the risk of collisions with wildlife and people.



New signage 30 January. Location E below. Photo Claire Hotchin.

Methods

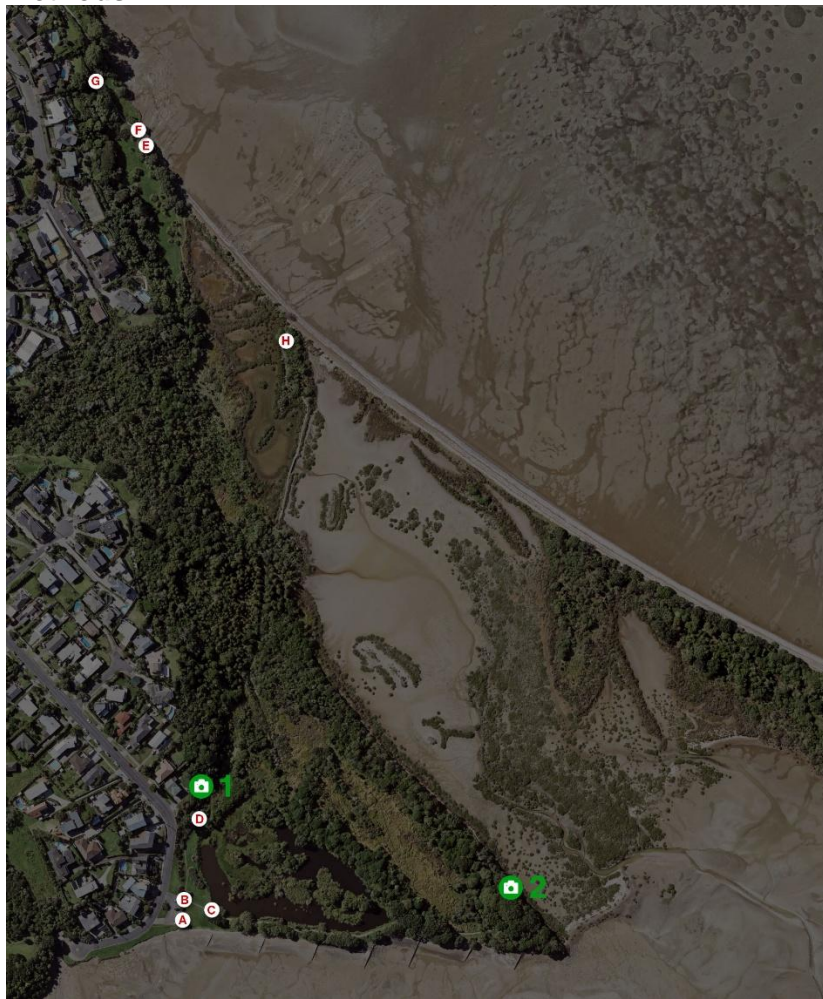


Figure 1. Map showing location of cameras and 'no-dogs' and 'no-cycling' signs (A-H)

Camera Setup: A motion-activated wildlife camera was installed at -36.8722° S, 174.8815° E (see camera 1 in figure 1). It was positioned seven metres high in a tree to keep it secure. The angle means faces were not recognisable due to the camera angle directed downward.

Monitoring Period: The camera recorded images from 1:00 PM on 03 Mar 2025 to 1:00 PM on 18 March 2025, covering a 15 day period. Weather conditions were mostly sunny or cloudy, likely conducive to increased visitor activity. There were about 12 hours of daylight per day.

Data Collection: The images, totalling 4,817, were manually sorted into 1,448 unique events, defined by the presence of walkers and runners, cyclists, birds and dog-related violations. Many events included multiple people and animals which were then counted.

A second camera was installed at -36.872241, 174.884803 (see camera 2 in figure 1) for a shorter 44 hours, 28 minutes from 3/03/2025 12:36 PM to 03/05/2025 09:04 AM to look for variation in track use.

Results

People and animals identified going past the camera.



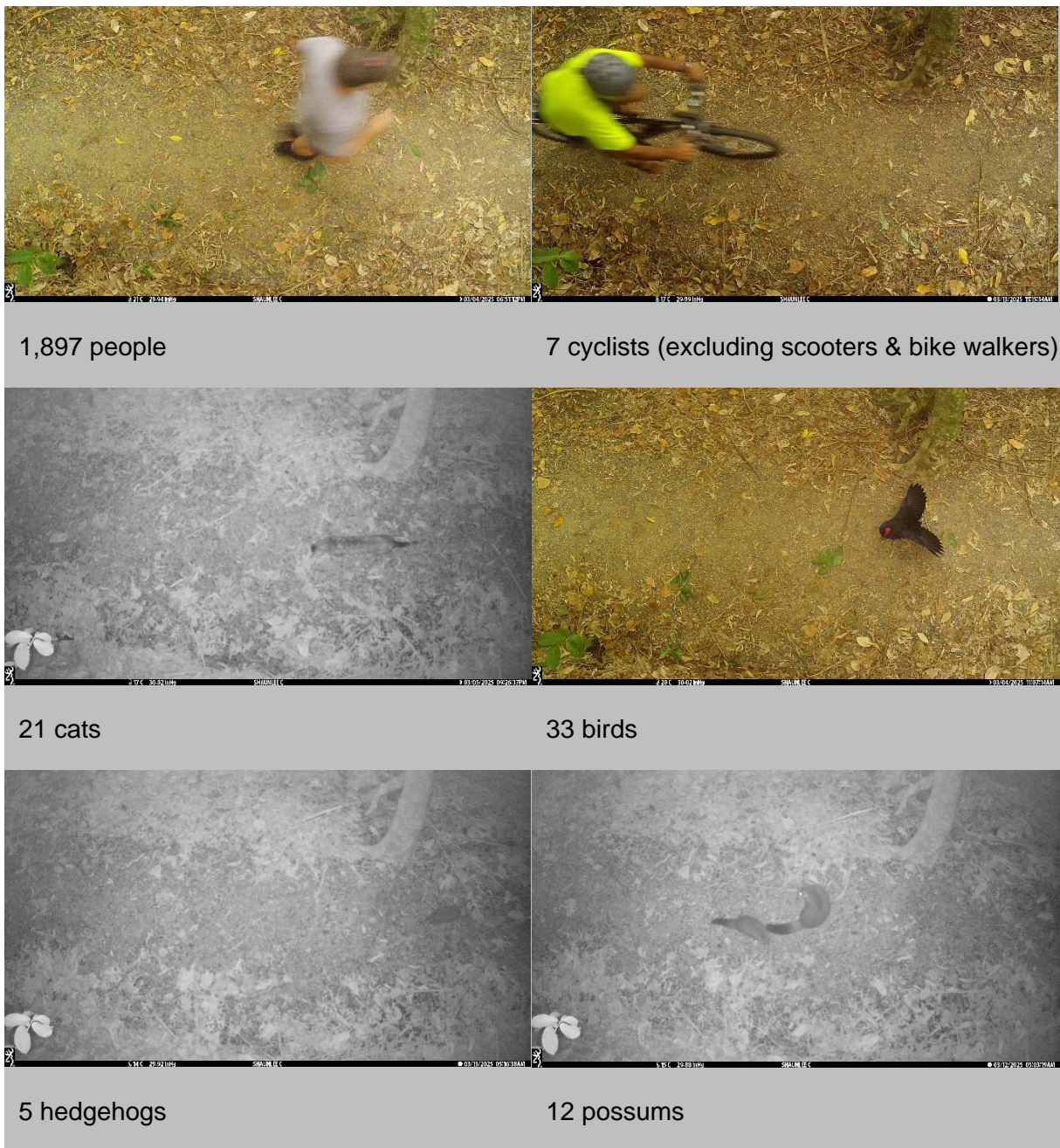


Figure 2. Results and example images

Results from Camera 2 (which ran for a much shorter period) were consistent, with 175 people, 5 birds, 3 cats and 1 cyclist.

Notable changes since the October baseline study

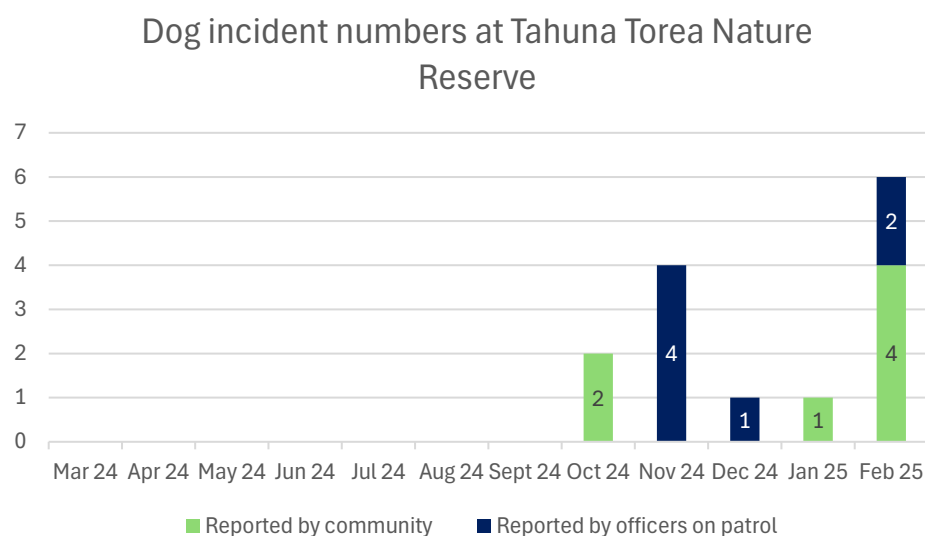
While numbers of people and birds are consistent with the October 2024 baseline study there has been a 94% reduction in dog sightings.

Cat sightings are up 600%. This is likely due to the camera detecting movement at night which it did not do in the first study. Cats were recorded on camera for 10 out of the 15 days (67%). All cats were recorded during the 12 hour period of 7pm to 7am. The majority were captured from 5pm to 12am (15/21 or 71%). 4 individual cats were recorded on more than one occasion.

Possums and Hedgehogs were not recorded in the baseline study. No change in the number of cyclists sighted, the cyclists sighted in March 2025 appear to be different to the ones sighted in October 2024. 100% of cyclists are still coming from the North.

Discussion

Decline in illegal dog usage of the reserve is encouraging. It is likely that signage played a role but worth noting increased vigilance from Council and community in response to the dog problem which has resulted in a dramatic increase in animal control incidents in the reserve. See Figure 3 below.



The no cycling sign is placed on the same post as the no dogs sign but has not resulted in any behaviour change. Although the cyclists are coming from the North they may not pass the sign but possibly be starting at the carpark (where there are two no cycling signs) and heading North then doing a loop South past the camera.

Consistent results from the second camera did not show any significant variation in track use but it should be used deployed for longer to pick up minority events.

The nocturnal activation of the cameras has shown that cats, possums and hedgehogs are the top management priority to reduce threats to indigenous biodiversity.

Conclusion

This observational study demonstrates significant progress on the illegal dog walker problem at Tahuna Torea Nature Reserve and highlights new nocturnal threats to wildlife. These findings show that public education, community vigilance and enforcement measures can minimise human impact on the reserve's sensitive wildlife populations.

Acknowledgements

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