

Quantifying dog usage of Tahuna Torea Nature Reserve

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Abstract

This study monitored 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.

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 new dog restriction signage in late October 2024. It is also illegal to cycle in the reserve.

Methods

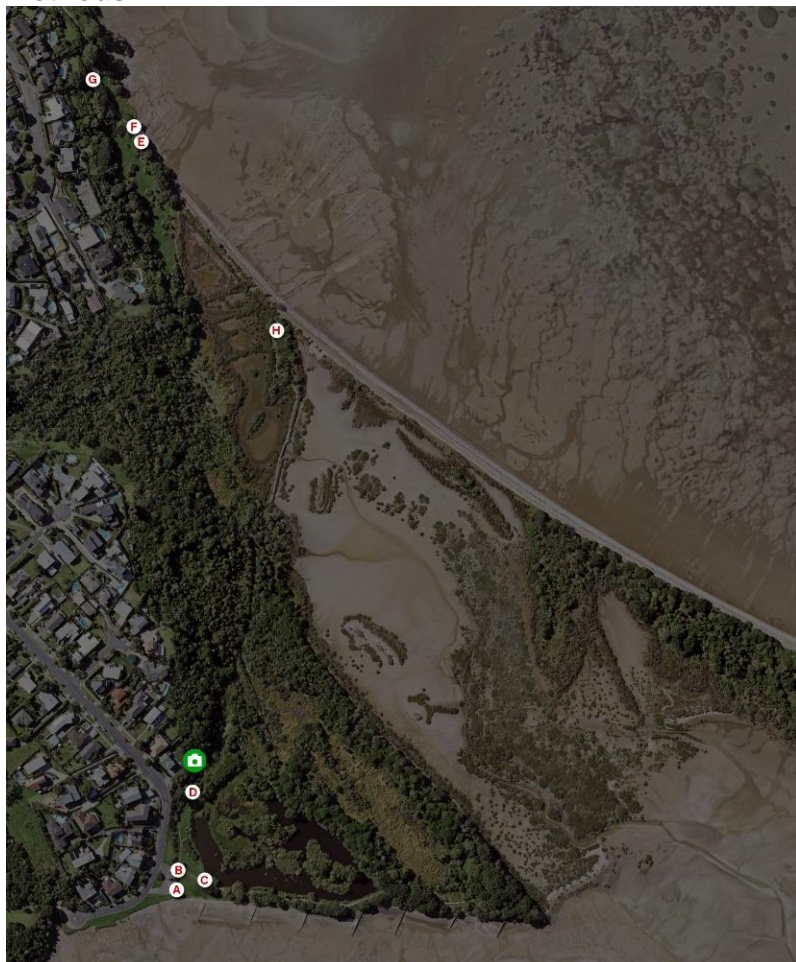


Figure 1. Map showing location of camera and 'no-dogs' and 'no-cycling' signs (A-H)

Camera Setup: A motion-activated wildlife camera was installed at - 36.8722° S, 174.8815° E, 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. The camera was operational during daylight hours only, with no nighttime activation.

Monitoring Period: The camera recorded images from 10:03 AM on 25 October 2024 to 3:38 PM on 8 November 2024, covering a 14 days, 5 hours, and 35 minutes period that included a long weekend. Weather conditions were mostly sunny or cloudy, likely conducive to increased visitor activity. There were about 13.5 hours of daylight per day.

Data Collection: The images, totalling 8,400, were manually sorted into 1,268 unique events, defined by the presence of walkers and runners, cyclists, birds and dog-related violations. Some events included multiple people & animals which were then counted.

Results

People and animals identified going past the camera.



Figure 2. Results and example images

Discussion

The presence of illegal dog walkers and cyclists in the reserve raises concerns for local wildlife, especially bird species that are highly susceptible to disturbances from dogs. Even on a lead, dogs can disrupt bird nesting, feeding, and roosting behaviour, while off-lead dogs present a heightened risk of direct predation. The appearance of multiple cats in daylight hours also suggests an additional predator threat within the reserve which requires more study.

Only one dog was brought to the reserve more than once; this German Shepherd was observed on three occasions, both on and off lead. 16 individual people were recorded walking with dogs. 13 different dogs were identified. Dog owners were twice as likely to bring their dogs to the reserve on a Friday, Saturday or Sunday than any other day of the week. The data suggests that there may also be more dog walkers during weekday early afternoons and weekend mornings. All cyclists and nearly all dog walkers were observed approaching from the northern end of the reserve, though entry could occur from either end.

There were about 12 permanent 'no-dogs' and 'no-cycling' signs in eight locations in the reserve while the camera was active (see companion document *No dogs and no cycling signs at Tahuna Torea Nature Reserve 10 November 2024*).

During the study period, a volunteer observed two dog walkers, with one of these encounters missed by the camera. Additionally, other routes frequently used by dog walkers, such as the beach front and the tracks alongside the pond and lagoon, were not monitored by the camera. This suggests that the recorded data likely underrepresents the true number of dogs entering the reserve, as other sections where dogs are commonly seen were not monitored.

Although new signage was installed just prior to this study, the frequency of dog-related events indicates that awareness and compliance are ongoing challenges. The observed incursions suggest a need for increased education or enforcement to safeguard the ecological integrity of Tahuna Torea Nature Reserve.

Conclusion

This observational study quantifies the illegal dog walker problem at Tahuna Torea Nature Reserve, with both on- and off-lead dogs recorded nearly every day despite clear restrictions. These findings underscore the importance of continued public education and possible enforcement measures to minimise human impact on the reserve's sensitive wildlife populations.

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