

Detecting native birds through citizen science

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Given that 88% of New Zealanders live in urban areas, restoring native avifauna in cities is crucial for increasing residents' affinity, understanding and values of our unique biodiversity. Despite the recent increase on conservation efforts throughout the country, it is still unclear whether vegetation, connectivity, mammalian predators or other human disturbances are hindering a faster recovery of native birds in urban areas. To estimate what factors influence the most on native birds, we have collected over 1,500 hours of audio from 50 forest patches of Wellington City. To estimate the avian composition at each forest patch, we will create a citizen science project where anyone could help us identifying the bird calls recorded in the audio.

The project will be hosted on the world's largest citizen science platform Zooniverse, a platform with more than 1.3 million users. We will implement appropriate tools to ensure citizen scientists are identifying the bird calls in an efficient and accurate manner. The data analysed by the citizen scientists will help us to generate maps with information about bird species diversity and frequency of native birds in Wellington City. Combining these maps with information about the vegetation, abundance of mammalian predators, and human disturbances, we will investigate how different factors influence native avifauna in urban areas. We will also study the behaviour of the online community set up around this project (e.g., participants talking about ways to identify New Zealand birds based on their calls). Based on our citizen science experience and the resources offered by Zooniverse, this project is ensured to overcome common challenges associated with crowdsourcing research, such as poor data quality or insufficient participant engagement.