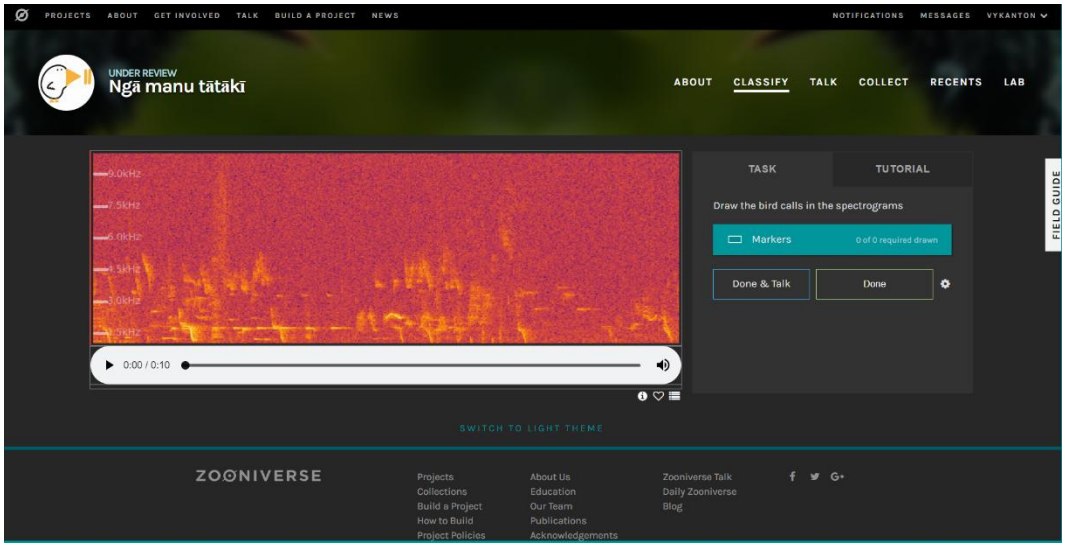
Bird Calls Analysis - Citizen science project

Victor Anton, Jacob Woods, and Markus Luczak-Roesch

We are developing a community-driven approach to identify New Zealand bird calls from audio recordings. Thanks to the Birds New Zealand Research Fund, we were able to review and optimise a website where volunteers (citizen scientists) could identify the bird calls. Our project is now awaiting final launch as we discuss the best way we can collect citizen science data to assist the automatisation of birdsong recognition.

The website, hosted by Zooniverse, has undergone user review by 46 citizen scientists, who reported the presence/absence of bird calls in 698 sections of audio. We have optimised the website based on the feedback provided by these citizen scientists. For example, we have streamlined the bird call identification process and included a guide with examples of the calls of different species. To understand how we could design a better user experience, we also provided citizen scientists with the option to classify audio clips of different lengths (i.e. five- and ten-second workflows). Based on the preference of citizen scientists we opted for displaying audio into sections of five seconds. Lastly, we also evaluated the ability of citizen scientist to classify the presence/absence of bird calls in audio. Their classifications overlapped in 94% with the classifications provided by professional biologists. This level of agreement highlights that citizen scientists are well-suited to classify the presence/absence of bird calls. Further work is still required to evaluate whether citizen scientists can be as accurate as professionals at identifying species-specific bird calls.

The feedback provided by the citizen scientists and the comparison with professional biologists have helped us designing a fun, engaging, and scientific website where the public will engage with ornithological research within a virtual framework.



Screenshot of the citizen science website hosted on Zooniverse