

Citizen Science - Informing Decision Makers

Ms Elise Smith¹

¹*Nga Motu Marine Reserve Society*, ²*MAIN Trust NZ*

This case study is of Project Hotspot, a successful citizen science project which gathers and analyses data on local threatened and uncommon species, and thus informs decision makers. It built upon the existing low-level use of volunteer knowledge and data collection systems, and engaged with the wider community and schools.

Project Hotspot was funded through MBIE's Curious Minds and provides an example of scalable and meaningful public engagement in citizen science.

The project is contributing to species presence records and providing data for temporal and spatial analysis. The data can be used locally and nationally by scientists and decision makers. The community sees that their observations are valued, that the information is acknowledged and visible, and that actions can be taken to improve the local environment. This stimulates the interest level and provides a factor of excitement with fun, thus maintaining participants' enthusiasm.

There have been some surprising and exciting results. The use of social media to inform locals that orca had been spotted on Waitangi Day holiday provided an invaluable record of the pod travelling up the Taranaki coast. The integration of public reports and a penguin surveillance camera are informing us of the habits of penguins. Through photographs submitted by citizen scientists it has been discovered that reef herons can be identified as individuals, and their range mapped.

NatureWatch NZ's digital systems collate the valuable fine-scale data throughout the year, and record observations of perceived threats to the species. By setting up the data collector with specific fields and a photographic identification facility, not only is the data verified, but it provides a deeper knowledge of population structure and behaviours. An online and searchable Geographic Information System analyses the data, providing maps of species locations, behaviours and temporal changes.