Research paper reveals conservation 'winners'

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A group of academics, including Associate Professor Nicola Nelson from Victoria University of Wellington's School of Biological Sciences, has today published a paper showcasing New Zealand's success in conservation over the past 30 years. The paper, published in the *Journal of the Royal Society of New Zealand*, uses seven case studies to explore successful species conservation in New Zealand.

"We believe that promoting successful examples of conservation will help the wider community realise the importance of conservation in reversing the current extinction crisis we are facing," says Associate Professor Nelson.

The seven case studies aimed to define what makes a conservation effort successful, looking at whether particular actions or the support of particular people had an effect. The authors also aimed to discover whether these conservation efforts would continue to help each species, and also whether the same techniques would work where other conservation efforts have failed.

The seven conservation 'winners' the paper looked at were the Armstrong's Whipcord Hebe, the Mercury Islands Tusked Wētā, the Common River Galaxid, the tuatara, the saddleback, the long-tailed bat, and the humpback whale. According to the researchers, these species have all seen improvement due to dedicated conservation efforts. In some cases, new populations have sprung up, some have seen growth in existing populations, and some have seen an increase in knowledge about

the species which has led to better protection and restoration.

The case studies suggested several key factors that are important to conservation success.

"These species received long-term, species-specific attention," Associate Professor Nelson says. "They had dedicated programmes and multiple parties collaborating to ensure they achieved conservation success. Public engagement is also helpful."

The paper's findings also suggest that ongoing management, ensuring genetic diversity, and research on the impact of climate change on various species will be vital to conservation.

However, many of the techniques used for these conservation 'winners' wouldn't be feasible for other species, Associate Professor Nelson says. For example, the dedicated attention provided to the tuatara would not be affordable for the other lizard species in New Zealand. Projects that focus on a single species may also not be the most effective option—although evidence suggests that single-species and multi-species projects are equally cost-effective, there may be other unmeasured factors that make multi-species projects more successful.

"Multi-species conservation projects like sanctuaries protect multiple species, improve ecosystems, and raise awareness of conservation issues," Associate Professor Nelson says. "Including a more holistic view of conserving species as part of functioning ecosystems may be a way to ensure the conservation of all species, and not just the charismatic organisms."

The main goal of this paper, Associate Professor Nelson says, was to contribute to ongoing efforts to accentuate the positive effects of conservation.

"There is no reason why the current extinction crisis facing New Zealand and the world cannot be stopped and reversed by extending the lessons learned from the winners more widely," Associate Professor Nelson says.

Provided by Victoria University of Wellington