

Proactive conservation or planned invasion? Past, current and future use of assisted colonisation

*Philip J. Seddon, Dorian Moro, Nicola J. Mitchell,
Alienor L.M. Chauvenet and Peter R. Mawson*

Summary

Assisted colonisation – the translocation of organisms with release in areas outside their indigenous range in response to threats such as climate change – was presented in the scientific literature only a few years ago as a new tool for species conservation. The idea of planned introductions for conservation is a controversial issue, prompting vigorous, and sometimes ill-informed, debate in the scientific literature. The broad consensus was that this represented a bold new direction that had merit but carried great risk. Unacknowledged by most commentators, assisted colonisation (by other names) was already taking place, and in Australia and New Zealand was even a long-accepted part of the conservation management tool kit. In 2013, the IUCN recognised assisted colonisation as a legitimate, if inherently risky, conservation translocation, and set out a comprehensive set of guidelines for its application. We review the history of assisted colonisation, with a focus on Australian and New Zealand projects moving species in response to threats within the indigenous range. We review the current status of assisted colonisation in Australia and New Zealand and present two case studies to illustrate the application of new approaches for assisted colonisation planning: Australia's western swamp tortoise (*Pseudemydura umbrina*), and New Zealand's hihi (*Notiomystis cincta*). We conclude by considering future directions in the specific application of translocations for climate change mitigation in the region.

Introduction

Richard Henry and the world's first conservation introduction

In 1894, a self-taught naturalist and jack-of-all-trades Irish immigrant, Richard Treacy Henry, was appointed curator and caretaker of Resolution Island

in Dusky Sound in the remote Fiordland region of the west coast of New Zealand's South Island. From his base on nearby Pigeon Island, Henry observed the devastating impacts on the native mainland avifauna following the arrival of stoats (*Mustela erminea*) invading from the east, and took it upon himself to