

# Steps forward, back and forward again – Dancing the Biodiversity Fandango

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Governments and volunteers have planted millions of indigenous trees and eradicated thousands of pest mammals. Bellbirds have increased in Christchurch and tui in Hamilton. Citizen science has engaged people with nature. Paradoxically, attrition of natural, centuries-old ecosystems, and fine-scale biodiversity, has accelerated since the NZ Resource Management Act (1991) was passed. Designation and ranking of ‘significance’ has unwittingly undermined protection of fringe, lowland, coastal and dryland habitats, and adoption of ‘offsetting’ has been problematic for conservation.

Ecological restoration has focused in cultural landscapes over the past 30 years. Successful establishment of tried and tested structural species has suppressed grass and formed a dense canopy 5-10m tall. Older plantings (some dating back a century) show regeneration from the mature trees or from nearby natural sources. In the latter case there may be colonisation of ferns and other unplanted species, but otherwise understorey and ground cover remain depauperate, dominated by litter or exotic, shade-tolerant creepers. Several jurisdictions (e.g. Christchurch/Canterbury and Auckland) are now pursuing a wider landscape integration of nature, and most regions have eco-sanctuaries that provide accessible experience of our vulnerable, charismatic wildlife. These are stepping stones through space (halo effect) and time (to Predator-Free NZ)!

We present examples and offer remedies or tools for achieving the next generation of conservation targets (Environment Road Map): ‘maximum acceptable loss model’ (preventing attrition to below critical mass of representative, primary habitat); ‘gradient management’ (conserving successional sequences within recombinant ecosystems); tertiary restoration (enrichment and niche planting); ‘optimal patch configuration model’ (ecological integrity and natural character); hi-tech pest plant (wilding conifers) and (humane) animal eradication; getting the taonga back into biodiversity (cultural harvest to wahi tapu; conservation partnerships between iwi, community and government); acknowledging the vital role of urban environments and visibility of indigenous noble trees/taonga to conservation success through legible landscape design.