11. Restoration case studies

These examples are mostly from Canterbury, and cover a range of ecosystems involving community groups, individuals, local authorities and DOC. They provide a check on restoration theory and the methods used should be applicable throughout New Zealand.

Restoration of Tiritiri Matangi Island, in the Hauraki Gulf, is an outstanding success. Substantial native habitat has been restored, enhancing natural recovery. This has created a sanctuary for endangered birds, including saddlebacks/tieke, bellbirds/korimako, stitchbirds/hihi and takahē. The island is accessible to the people of Auckland, and the project has gained massive community support.

Contact: DOC, Auckland Conservancy.

Large areas of native forest were planted on bare slopes in the Hunua Range in the 1970s to mask the scars caused by the construction of reservoirs for the Auckland water supply. Brian McClure, one of the pioneers of large-scale forest restoration, is standing on the Mangatangi Dam, with 20-year-old, 12-m tall forest beyond.

Contact: Auckland Regional Council.
Mike Greenwood is one of the pioneers of ecological restoration in New Zealand with his major effort at Keebles Bush, Manawatu. With the help of conservation groups, he has controlled weeds such as wandering willie, buffered existing remnants, recreated new forest and propagated locally rare species and planted them back into the habitat. This view of podocarp forest at his home in Palmerston North, is the result of 40 years’ labour.

The Tapu Te Ranga Marae, Wellington is the focal point for a major landscape restoration project to attract native birds back into the area, and provide resource materials for local iwi and the wider community. Maggy Wassilieff has been involved in the planning and design of this project.

Contact: Tapu Te Ranga Marae, Island Bay, Wellington.
Ötukaikino is a partnership project between DOC (statutory landowners and managers), Lamb & Hayward (Funeral Directors) and the Ngāi Tuahuriri Rūnanga. The project is restoring a native podocarp swamp forest and wetland, and at the same time providing a living memorial. Willows are being used as a nursery for underplanting the first stages of new forest.

Contact: DOC, Canterbury Conservancy.

Excessive removal of weeds can create more problems than it solves. At Ötukaikino, large-scale cutting of willow has resulted in the regeneration of young willow, blackberry and grass, which is hard to manage and interplant. The shade of the original mature willows suppressed willow and other weeds, and acted as a nursery for native planting.
Management of raupō in the open water areas of Ōtukaikino has become an issue since the wetland has been opened up by willow removal. Local iwi may be interested in harvesting surplus raupō for cultural uses – this would also assist in maintaining a mosaic of open wetland communities.

Travis Wetland Nature Heritage Park in Christchurch is the largest urban freshwater wetland in the country. The many restoration issues are managed by the Christchurch City Council in partnership with the community-based Travis Wetland Trust.

Contact: Christchurch City Council, Parks & Waterways Unit.
Grey willow, a rampant seeder that spreads across ungrazed open wetlands at Travis Swamp, is being eliminated. The more restrained crack willow (which spreads vegetatively, usually only along waterways) can be used as a nursery for future swamp forest species. Its deciduous canopy is an ideal nursery for this light-demanding but competition-shy kahikatea seedling, which was planted by a Forest and Bird group.

Field trials in the Ti Kōuka project, near Amberley Beach, North Canterbury. The project aims to mitigate the effect of sand mining in these stony beach ridges, enhance the remaining vegetation remnants and develop new wetlands. The site has been ripped and pre-sprayed with glyphosate. One trial used rabbit fencing to protect early growth of sensitive plants, while another used sleeves to protect plants. Plantings were done in spring and autumn, but only the spring plantings were irrigated – this nullified the usefulness of the irrigation trials.

Contact: Lucas Associates, Christchurch.
Existing tall vegetation and microsites, such as this macrocarpa tree on the edge of a wetland, are used in the Ti Köuka project to establish frost-tender species. Their seed will later disperse into other parts of the site, once the hardy pioneers have formed a canopy and receptive litter beds. Plant protectors and animal repellents provided good protection on these unfenced sites, aided by leaving some areas.

Waterway enhancement on Corsers Stream, Christchurch. This was the first such project for the Christchurch City Council 10 years ago. This stream drains from Travis Swamp into the Avon River. Sedges, rushes, trees and shrubs are now regenerating naturally on its banks. It provides an attractive walk, though some property owners miss seeing the water.