

# Restoration of Indigenous Biodiversity on Coastal Backdunes

## Dune Restoration Trust of New Zealand

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Funded by the Ministry for the Environment's Community Environment Fund in collaboration with local community Coast Care groups, councils, Trusts and the Department of Conservation



# Purpose of project

To enhance the capacity of local communities and councils to undertake restoration of indigenous biodiversity in coastal backdune environments

# Key Principles

- i. Ecosystem-focused approach - activities designed to initiate or accelerate recovery of natural dune ecosystems.
- ii. Ideal of restoration of natural self-sustaining dune ecosystems with minimal reliance on human inputs.

These ideals are difficult in practice with dune restoration as:

- Ecological objectives often have to be interwoven with (and are sometimes necessarily subservient to) other objectives related to cultural heritage, human amenity and recreation, coastal hazard management, etc
- NZ dune ecosystems have been extensively altered and degraded
- Wide variety of exotic plants and animals which can complicate natural dune succession and recovery without human intervention
- Dunes at many sites are still intensively used by humans

# Work being Undertaken

- Review of existing knowledge and experience relevant to backdune vegetation communities and restoration – including literature and restoration from around NZ
- Extensive inspection of naturally regenerating backdune sites around NZ
- Regional demonstration areas around NZ
- Community based monitoring and workshops

Information from this work will be integrated to develop practical guidelines for restoration of backdune areas and for monitoring of this work. These guidelines targeted at coastal groups, iwi, management agencies and the wider community involved in dune restoration.

# Project Partners

Project undertaken in partnership with various District/City and Regional Councils, DoC and local community/iwi groups – who provide a wide range of assistance including:

- Assistance with identification of backdune sites for inspection (and often accompanying Dunes Trust scientists in this work)
- Provision of information on local coastal dune systems and restoration work to date in these environments
- Facilitating local community involvement
- Set up of demonstration sites
- Provision of funding for supply of plants, contractors for weed control, site preparation, planting and maintenance, and supply of materials
- Collaboration for field-based workshops, monitoring and information collation at local sites
- Co-funding technology transfer outputs including interpretive signage, production of technical articles and factsheets, web-based outputs.
- In-kind support for staff time in project tasks

# Project targets

- **Year 1 (2011-12) & Year 2 (2012-13) - focus was /is on:**
  - Collation and review of existing information on backdune vegetation and restoration
  - Review and inspection of naturally regenerating backdune sites throughout the country (at least 50)
  - Set up of backdune restoration demonstration areas around NZ (at least 6)
  - Liaison with local community groups on backdune issues, programmes, and monitoring, including field-based community workshops (at least 4)
  - Inspect and assess backdune restoration work undertaken to date
  - Initiate drafting of publications on restoration of backdunes (at least 2)
  - Project progress reporting including periodic project newsletters

# Project targets

- **Year 3 (2013-14) – focus will be on:**
  - Completion of information collation and monitoring of demonstration areas
  - Synthesis of information from work in Years 1 and 2 t
  - Develop guidelines for undertaking and monitoring of backdune restoration – including a minimum of 10 relevant pamphlets for the Dunes Trust Handbook
  - Consultation with project partners regarding developing effective project outputs including review of draft publications and advice on other outputs which will assist with communication (e.g. Powerpoint presentations; provision of photographs and information that can be used by Councils in their information pamphlets, etc)
  - Provide project deliverables and updates in Dunes Trust newsletters and on website

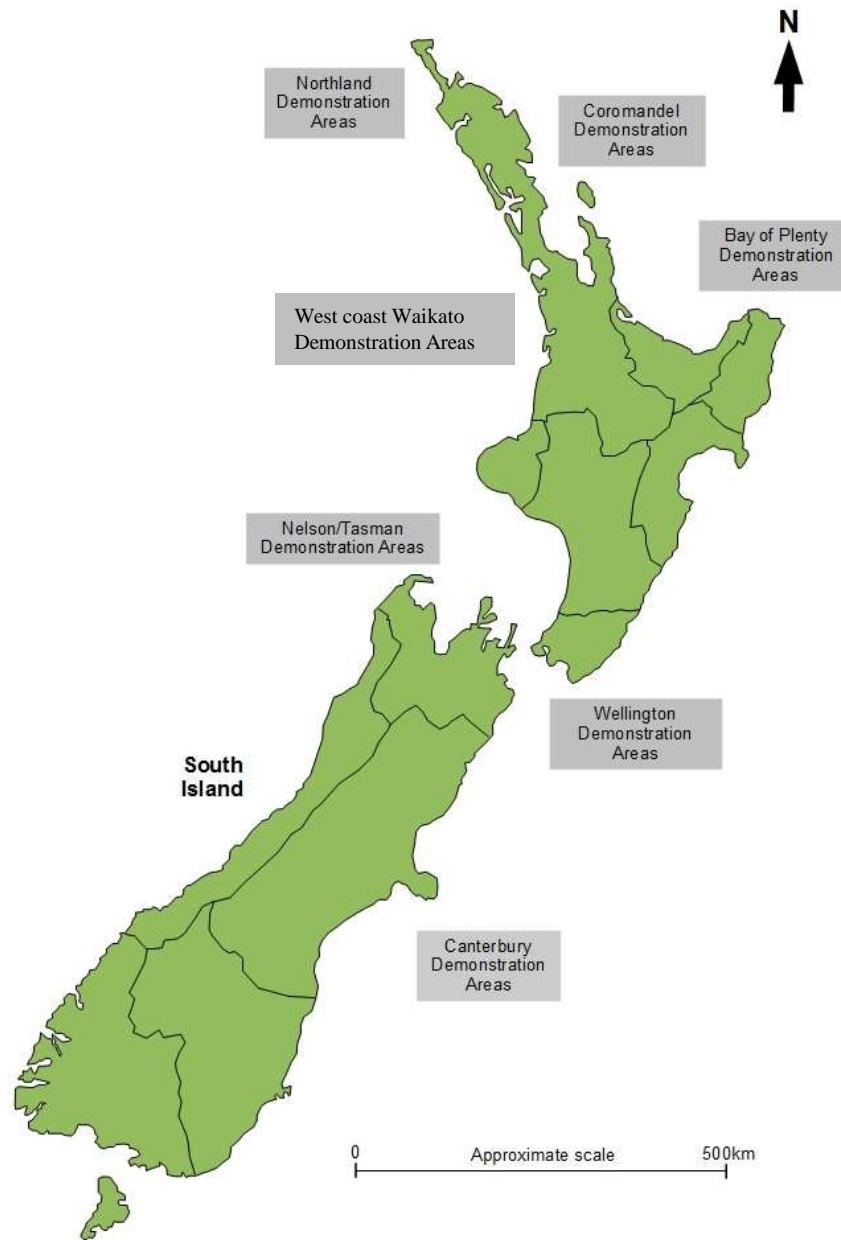
# Progress to date

- By end of Year 2 (June 2013)
  - Review and field work at over 200 backdune sites around NZ
  - Backdune Demonstration Areas set up in 7 (possibly 8) coastal regions
  - Field-based workshops held at 10 sites
  - 2 Dunes Trust Technical Handbook articles drafted
  - Minimum of 8 Project Partner Newsletters completed
  - Progress reported to 2 National Dune Trust conferences
  - Updates on project progress in Dunes Trust Newsletters and website





Location of backdune sites and Demonstration Areas included in project to date



# Cooks Beach: Demonstration Area: Before



# Cooks Beach: Demonstration Area: After



# Cooks Beach Workshop 2012



# Draft topics for Dunes Trust Technical Articles on backdunes

- Indicative subject areas reflecting key outcomes of the project (subject to review):
  1. Backdunes – the need for restoration (original state, human induced modification, etc)
  2. Importance of zonation and succession in planning coastal backdune restoration
  3. Guidelines for backdune restoration – urban and similar sites
  4. Guidelines for backdune restoration – rural and less developed sites
  5. Community engagement in restoration of backdunes
  6. Monitoring backdune restoration programmes
  7. Native ground cover species on mid-dunes
  8. Key native shrub species for planting on backdunes
  9. Coastal forest species on sand dunes
  10. Management of animal pests on backdunes
  11. Plant pest control on backdunes
  12. Restored backdunes – case studies



# Project Partners

Along with the Ministry for the Environment's Community Environment Fund (CEF) the Dunes Trust thanks the following partner organisations for their funding and ongoing involvement in the Backdune Project.

We also appreciate the fantastic efforts of the community groups working on their local projects. We welcome other partners so please contact us.

