

Backdune Restoration

Partners Newsletter Year Two No. 4, 2013



Rabbit Island, Nelson. Photo: G.Bennett

Pine trees are planted along the foredune in many parts of the country. Often these are not highly productive areas because of the exposed nature of the sites and a high salt water table.

Delegates at the recent Dunes Trust conference in Nelson discussed the technical and practical opportunities to work with forest managers to develop buffer zones between plantations and the coast. This involves progressively replacing pines with shrubs and native coastal trees.

Whangamata demonstration site - interim results



Whangamata before clearing

Since this area was developed, *Pohuehue Muehlenbeckia complexa* has proved the most successful vineland species, though sand coprosma and native spinach have also done well in some areas.

Of the other backdune species, *Carex testacea* has proved the most successful with only limited numbers of the other species surviving. The severe drought of the 2012/13 summer appears to have been a factor.



August 2011 after planting

The transition zone between the spinifex- and knobby club rush-dominated communities has proved difficult with serious grass and weed invasion and significant die-off of most native species. The reasons appear to relate to human use - as a tent was apparently placed in the area for a significant period over summer with evidence of flattened vegetation and beer bottles throughout the zone. Further planting has been undertaken.



March 2013 - 21 months later

Photos: J. Dahm, Eco Nomos



Ministry for the
Environment
Manatū Mo Te Taiao

Community Environment Fund

2013 Dunes Trust awards announced

The Dunes Trust/Quinovic Student Study Award was presented to **Renee Johansen** at the recent Dunes Trust conference.

Renee is studying root fungi in marram and spinifex and trying to establish whether introduction of the fungi will benefit spinifex health. Renee will be providing us with regular updates which we will load to our website.

Best Coastal Community Group award sponsored by Taupo Native Plants was presented to the **Sumner Environment Group**. This highly enthusiastic group has been picking up litter, planting dune species & rebuilding amenities destroyed in the earthquakes. Check out their work here:

<http://sumnercommunity.co.nz/Directory/Organisations-Associations-and-Groups/Sumner-Environment-Group>

Best Coastal Restoration Project award sponsored by Naturally Native was presented to **Te Kōhaka o Tūhaitara Trust** that was set up to manage the Tuhaitara Coastal Park established during the Ngai Tahu settlement with the Crown. Check out their work here:

http://www.tuhaitarapark.org.nz/Tuhaitara_Park/Home.html

The Dunes Trust is supported by partners, members, project sponsors and our Premier Principal Sponsor:



Community-based dune vegetation monitoring at Rarawa, Far North

Rarawa Beach is located on the eastern coast of Aupouri Peninsula near the southern end of Great Exhibition Bay, approximately 50 km north of Kaitiaki in the Far North. The local community group Friends of Rawara (FOR) has extensive experience monitoring dotterel and predators. Staff from DOC and Northland Regional Council are also involved along with local schools including Ngataki, Waiharara, Te Kao and Pukenui.

Several backdune vegetation monitoring activities are being developed with FOR, local schools and agencies including:

- Assessing the current status and monitoring long term the spread of the aggressive exotic Australian coastal wattle;
- Monitoring the progress and success of control options for wattle;
- Monitoring performance of a range of planted native trees and shrubs on backdunes.

A one-page **site history template** has been tested for recording history of when, where and what activities are undertaken at each working bee or by contractors. Space is provided for mapping where clearing and planting has been carried out, as well as recording any other relevant information. This is designed not to be too onerous for completion by the Coast Care group leader and will be useful in determining success of operations carried out in previous years.

Permanent Sample Plots (PSPs) and **transects** have been established with FOR in the wattle dominant forest on landward backdunes and along the seaward shrub/foredune transition zone. Four 10m x 10m PSPs were established and vegetation cover assessed using standard RECCE methods. Six 50 m transects were established along the spinifex/wiwi and wattle interface along backdunes at the southern end of the beach. Treated wooden pegs, GPS and mapping was used to identify plots and transect locations for subsequent assessments by the community.

A key aspect of this project is working with **local schools**. The Dunes Trust and FOR are talking with principals and teachers to develop **curriculum based dune restoration activities** including:

- design and plans for planting programmes
- planting and monitoring species,
- design and construction of signs,
- design and placement of plant labels next to a sample of plants to help learn species names,
- identifying and mapping of plantings.

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Dense wattle forest on backdunes, Rarawa Beach, Far North, Northland. Four Permanent Sample Plots have been designed and established with the local coast care group in the forest to monitor long term changes to canopy cover and succession of native understorey.

Photo: D. Bergin



Developing monitoring options for cleared wattle sites at Rarawa Beach, Far North, Northland, with the local community group Friends of Rawara (FOR).

Photo: D. Bergin

The Dunes Trust thanks the following partner organisations for their funding and ongoing involvement in the Backdune Project.



Department of Conservation
Te Papa Atawhai



Living Legends
Where the field meets the forest

