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TITLE: WORKSHOP ON BEACH CARE INITIATIVES AND SAND DUNE
REVEGETATION RESEARCH IN THE WAIKATO, COROMANDEL AND
BAY OF PLENTY REGIONS, JANUARY 1995

AUTHOR(S): D. O. BERGIN

DATE: 1995

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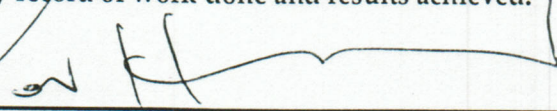
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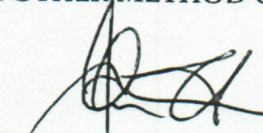
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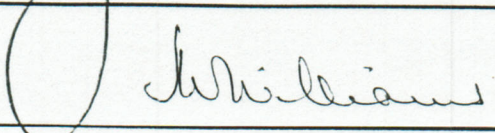
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AUTHOR(S): D. O. BERGIN

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KEYWORDS:

SAND DUNES, FERTILISER, INDIGENOUS, *SPINIFEX SERICEUS*,
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ABSTRACT*

NZ FRI and the Waikato Regional Council (Environment Waikato) co-organised a workshop to inspect current Beach Care initiatives and revegetation trials in the Waikato and Bay of Plenty regions. A further aim was to enhance existing contacts and establish new contacts between agencies and to discuss coastal issues including research priorities and technology transfer. Representatives from several local authorities throughout the country attended. This report covers the issues raised during the workshop including implications for the NZ FRI sand dune research programme.

* Note: This material is unpublished and must not be cited as a literature reference.

WORKSHOP ON BEACH CARE INITIATIVES AND SAND DUNE REVEGETATION RESEARCH IN THE WAIKATO, COROMANDEL AND BAY OF PLENTY REGIONS, JANUARY 1995

RATIONALE

The Waikato Regional Council (Environment Waikato), the Bay of Plenty (BOP) Regional Council (Environment BOP) and the New Zealand Forest Research Institute (NZ FRI) co-organised a field-based workshop to inspect recent Beach Care initiatives and sand dune revegetation trials using native species at Port Waikato and in the Coromandel and BOP regions.

The purpose was to enhance existing contacts and establish new contacts between agencies and to discuss coastal issues. These included determining the role of managing agencies (viz. Local Authorities and the Department of Conservation (DOC)), managing beach users and in particular the setting up of Beach Care groups, controlling commercial development of coastal sites, the availability of technical information on sand dune dynamics, vegetation and rehabilitation, and the need for research.

From an NZ FRI standpoint as a research provider, a key objective of the workshop was to view existing trials, discuss research for sand dune rehabilitation with managers and to explore funding strategies.

PARTICIPANTS

Participants included:

Jim Dahm (Coastal Scientist, Environment Waikato)
 Harley Spence (Beach Care Co-ordinator, Environment Waikato)
 Rebecca Mapleston (Environment Waikato)
 Maurie Donald (Environment BOP)
 Ian Porteous (Beach Care Co-ordinator, BOP)
 Felicity Fahy (Coastal Resources Scientist, Auckland Regional Council)
 Helen Moodie (Landcare Co-ordinator, Auckland Regional Council)
 Chris Freeman (Management Planning Officer, Christchurch City Council)
 Craig Johnstone (Hauraki District Council, Paeroa)
 Murray Sexton (Beach Care Co-ordinator, Hauraki District Council, Paeroa)
 Chris Richmond (Conservation Advisory Scientist, DOC, Rotorua)
 Christine Brown (Field Officer, DOC, Tauranga)
 Peter Watson (Coastal Reserves, Tauranga District Council)
 Marie Gordon (Coastal Reserves, Tauranga District Council)
 David Bergin (Scientist, NZ FRI)

Other interested representatives from DOC Hamilton (Theo Stevens, Conservation Advisory Scientist), the Wellington Regional Council, Rodney District Council, Franklin District Council (Greg Lowe, Reserves Manager) and Ernslaw One (Brent Guild, sand dune forest manager) could not attend and will be briefed regarding outcomes of the workshop and their comments sought.

ITINERARY AND MAIN ASPECTS COVERED

Monday 23 January

Port Waikato - dune reconstruction including sand trapping fences, planting and fertilising
 - Beach Care group and activities
 - NZ FRI and Environment Waikato rehabilitation trials

Tuesday 24 January

Matarangi Beach - Matarangi Beach Estates subdivision activities and beach management
 - NZ FRI trials - fertilising spinifex stands
 - pingao provenance dune planting
 - dune and foreshore management issues

- Kuaotunu West - Beach Care group and background
- dune reconstruction and revegetation using native species
- Whitianga - dune management issues
- Beach Care group and background
- large-scale dune nourishment and planned revegetation with native species
- current marina development and impact on harbour
- Whiritoa - dune management issues
- Beach Care group and background
- collaboration with local Maori Trust (Koha O Rapa Tio Tio)
- NZ FRI trials - fertilising foredune vegetation
- pingao post-plant fertilising
- spinifex seeding, transplant and seedling propagation
- establishment of native woody species

Wednesday 25 January

- Whangamata - background and activities of recently formed Beach Care group
- dune management issues and planned revegetation
- Waikare Estuary - estuarine restoration using native species
- Mt Maunganui - sand dune management issues at a high use site, siting of amenities, etc...
- Coast Care group and District Council activities
- eradication of coastal wattle stands and revegetation with native species
- Omanu Beach - Coast Care group and activities
- dune management issues including encroachment of private gardens onto dunes
- Maketu Estuary - river diversion and estuary management issues
- spartina eradication
- NZ FRI trials - monitoring of existing salt marsh
- transplanting of salt marsh species

POINTS TO CONSIDER

- All sites visited graphically showed that much of the coastline, both sand dunes and estuaries, are highly modified and under increasing pressure from recreational use and commercial development.
- Local Authorities now have increased obligations under the Resource Management Act (RMA) to preserve and enhance the natural character of the coastal environment. Regional Councils are in the process of producing Regional Coastal Plans as a requirement of the RMA where they must set out their resource management responsibilities in the Coastal Marine Area. For example, in their Proposed Regional Coastal Plan for Waikato, Environment Waikato state that they "will promote the protection, rehabilitation, and enhancement of appropriate native coastal plant species, particularly in sensitive areas such as estuaries and coastal dunes".
- The Beach Care or Coast Care concept (modelled on well established Dune Care programmes in Australia) has been adopted by Environment Waikato and Environment BOP and set up at several beaches in each region. The concept is very effective in getting the local communities and agencies together to manage coast rehabilitation programmes. Other Local Authorities throughout the country are very keen to develop this concept too.
- Although District and City Councils are more concerned with providing public amenities (eg., roading, drainage, carparks, etc...), they also are directly involved with community groups to manage and improve beaches. They often provide the bulk of resources for carrying out rehabilitation programmes in their local areas.
- Some DOC Conservancies are also producing coastal management plans.

IMPLICATIONS FOR RESEARCH

- Overall, there was a very high level of interest and support from managers, planners and coastal scientists for the NZ FRI sand dune rehabilitation trials using native species. A consistent comment was the lack of information on rehabilitation of coastal sites using native species and the need for more research at both an applied and strategic level.
- The collaborative approach between NZ FRI, Environment Waikato and local Beach Care groups was seen as an excellent model of developing and maintaining direct links between researchers, managers and users. It also served to develop an effective research programme that will deliver practical results where needed.
- Chris Freeman and Felicity Fahy were very keen for NZ FRI to collaborate with them in setting up planting and fertiliser trials in Christchurch and North Auckland respectively where Beach Care groups have just been started. For NZ FRI, this would not only provide other sites and species to compare revegetation techniques with the current trials that are concentrated in the middle North Island, but would give a greater national significance and hence support for FRST funding of our sand dune research.
- Prospects for research funding from Local Bodies is likely to be at a low level. There is no association/network of Local Authorities that could be used as a basis for establishing a co-operative or collaborative to fund research. Setting up a funding mechanism to include a large number of Local Bodies is beyond current resources for NZ FRI to attempt. Representatives present from ARC, CCC and Environment Waikato however, appear to be interested in contributing to a research programme - perhaps \$2-5000 per year for 5 years. They would also provide all necessary field resources (eg., seedlings, fertiliser, field workers, local co-ordinator for monitoring) for trials set up in their regions, as is the case with current NZ FRI trials in the Waikato region.
- In addition to current funding from FRST and DOC, other possible funding opportunities for sand dune research include sand dune forest owners (Ernslaw One, Carter Holt Harvey) and sand mining companies.
- NZ FRI are keen to continue the current level of DOC funding for sand dune research. Chris Richmond will seek clarification on latest developments with DOC Science & Research Division priorities for future research on sand dunes. He thinks DOC may see themselves having a reduced role in managing coastal dunes and this may reduce their priority to fund research in this area. He is however, supportive of coastal rehabilitation research and in particular completing the current spinifex propagation and establishment trials and continuing monitoring of the NZ FRI transplanting trials at Maketu Estuary.
- To attract further funding from a range of agencies, NZ FRI may need to consider producing a Sand Dune Research Programme outlining research priorities for the next 5 years. This would ensure research not only provides practical results to coastal managers but also blends in FRST strategic research priorities.
- Priorities for future research from the existing programme and supported by managers present include:
 - Continue propagation and establishment trials with the major sand binding species - pingao, spinifex and *Austrofestuca littoralis*. Produce guidelines for foredune revegetation.
 - Produce preliminary guidelines based on first-year results of spinifex fertiliser trials.
 - Extend current pilot trials of major woody native species on stable dune sites.
 - Complete current coastal wattle investigation and determine other major weed species (eg., boneseed) and strategies for control (support also from Colin Ogle, CAS, DOC Wanganui)
 - Extend establishment trials to other regions with Regional Council support, eg., Christchurch, North Auckland.