



Nelson – A Region of Coastal Diversity



2013 Dunes Trust Conference

Tuesday 5th – Thursday 7th March, 2013

Tahuna Function Centre, Nelson

Conference Handbook



Department of
Conservation
Te Papa Atarua



1. Thank you to our 2013 conference sponsors

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We would also like to thank the 2013 Conference Organising Committee:

- Simon Moore (DOC)
- Lynne Hall (Nelson City Council)
- David Sissons (Landscape Architect)
- Stephen Richards (Tasman District Council)
- Rob Lewis (Golden Bay Coast Care)
- Hans Stoffregen (DOC)
- Graeme La Cock (DOC, Dunes Trust Trustee)
- Kirsten Crawford (Dunes Trust Coordinator)

2. General Information

Conference Handbook Content

This handbook includes a full conference program, information about our presenters, field trip notes and maps. If you require any additional information please ask at the registration desk.

Venue & Meeting Room

The venue is the Tahuna Conference and Function Centre, located in the centre of the Tahuna Beach Holiday Park, 70 Beach Road, Tahunanui, Nelson. All plenary sessions will be held in the Kotuku Room upstairs at the centre. Venue phone number: (03) 545 7857.

Registration and Information Desk

Open from 8am till 4.30pm 5th March, 8am-9am 6th March, 8am-12:30 7th March. Outside of those times please contact one of the organising committee (listed in the front of the handbook).

All Presenters (including Regional Round-up)

If you are using PowerPoint, please provide a USB flash-drive of your presentation at the registration desk when you arrive (or as soon after as possible). Regional Round-up presenters will be advised of order prior to the Regional Round-up session.

Displays and Trade Stands

Displays and trade stands will be set up around the outside of the conference room. Please take the time to look at the displays. If you are setting up a display or trade stand, please come to the registration desk from 8am Tuesday 5th March to find out where your allotted space is. Ask at the registration desk for supplies, such as Velcro dots/blue tack, if needed.

Catering

Morning teas, afternoon teas and lunches will be served in the foyer. The **BBQ dinner** on Tuesday 5th March is included in the conference catering and will be held outside at the function centre (inside if it's raining). Pack lunches will be provided on Wednesday 6th March.

The **conference dinner** venue is The Boathouse, 326 Wakefield Quay, Nelson. Those who wish to walk to The Boathouse will meet outside the conference centre at 6:20pm (15-20 minute walk). The dinner starts at 7pm.

Taxis / Shuttles to and from Nelson airport

Nelson City Taxis (03) 548 8225; Nelson Bays Cabs (03) 541 8294; Sun City Taxis (03) 548 2666

Dunes Trust AGM

All conference participants are welcome at the Dunes Trust AGM, 5pm, Wednesday 6th March in the Kotuku Room. An agenda can be picked up from the registration desk prior to the meeting.

3. Conference Program

Day 1: Tuesday 5th March

- 8:00-8:55 Registration
8:55-9:00 Housekeeping
- 9:00-10:00 **Mihi whakatau – Formal welcomes**
Andy Joseph - Kaumātua
Nick Smith - Minister of Conservation and MP for Nelson
Aldo Miccio - Mayor of Nelson City
Mark Dean - Chair, Dune Restoration Trust
Cliff Tolloy - Quinovic Property Management, Dunes Trust Premier Sponsor
- 10:00-10:30 **Nelson Region dunes overview**
Nelson City - Nelson City Council (NCC) - Lynne Hall
Tasman Bay, Tasman District - Tasman District Council (TDC) - Stephen Richards
Golden Bay, Tasman District – (Golden Bay Coastcare Coordinator) - Rob Lewis
- 10:30-10:50 **Morning tea (20 mins)**
- 10:50-12:20 **Plenary Session: The character of Tasman and Golden Bays**
10:50-11:20 Early Human Settlement in Coastal Tasman & Golden Bays - John Mitchell - Mitchell Research
11:20-11:50 Tasman Bay currents, nutrient/sediment inputs, fisheries - Ken Grange - NIWA
11:50-12:20 Coastal dynamic change and shoreline management - Eric Verstappen - TDC
- 12:20-1:20 **Lunch (60 mins)**
- 1:20-3:30 **Fieldtrip: Tahuna beach and local environs**
1:20-1:50 Introduction and history - Lindsay Barber - NCC
1:50-3:30 Walk from Conference Centre to Tahuna Beach - discussion topics:
Blind Channel erosion, back dune vegetation, foredune vegetation, katipo, managing public use pressure
- 3:30 pm **Afternoon tea back at conference centre (30 mins)**
- 4:00-6:30 **Regional Round-up – speakers to be advised of order on the day**
Regional Round-up will continue at 7.45 (after dinner) if required.
- 6:30-7:45 **BBQ**

Day 2: Wednesday 6th March

- 8:30-4:30** Full day field trip: Riwaka river mouth, Tapu Bay, Kaiteriteri, Marahau and Motueka
- 8:30 am** Bus departs conference centre to Riwaka River Mouth
- 9:30-9:45** Riwaka river mouth - Roger Gaskell / Paul Mosely
- 9:45-10:45** Walk along coastline to Tapu Bay – various speakers
- 10:45-10:55** Morning tea at Tapu Bay reserve
- 10:55-11:20** Tapu Bay - Stephen Richards / Martin Lucas
- 11:20-11:30** Travel by bus to Kaiteriteri
- 11:30-12:00** Kaiteriteri - Rob Guild - Kaiteriteri Domain Board
- 12:00-1.00** Lunch on beach – speaker, Richard Kempthorne - Mayor of Tasman District
- 1:00 pm** Travel by bus to Otuwhero wetland
- 1:15-1:25** Otuwhero wetland - Helen Lindsay / Roger Gaskell
- 1:25-1:30** Travel by bus to Otuwhero sandspit, Marahau
- 1:30-1:45** Marahau beach front and coastal history - George Bloomfield / Eric Verstappen
- 1:45-2:45** Marahau sand spit project - Pam & Peter Holyoake
- 2:45-3:00** Afternoon tea at Marahau foreshore
- 3:00 pm** Travel by bus to Raumanuka back dune area, Motueka
- 3:15-3:45** Raumanuka back dune area - Beth & Tony Bryant / Pauline Samuals
- 3:45-4:30** Return by bus to Conference Centre
- 5:00 pm** Dunes Trust Annual General Meeting, main conference room – all welcome
- 6:20 onwards** Conference dinner and annual Dunes Trust awards
- 6.20 pm** Walkers set off for conference dinner
- 7.00 onwards** Conference dinner at The Boathouse

Day 3: Thursday 7th March

- 8:30-10:00 Plenary Session: National Dune Success Stories**
- 8:30-9:00 Dunes Trust Backdune Restoration Project - Jim Dahm - Dunes Trust Trustee
- 9:00-9:20 The impact of the wreck of the Rena, the actions taken and lessons learned - Julian Fitter - Maketu Ongatoro Wetlands Society
- 9:20-9:40 The Rena effects and the importance of maintaining matauranga maori through education and employment / restoration of our taonga and fragile ecosystems - Jason Murray and Aroha Armstrong - Matakana Island Marine Club
- 9:40-10:00 The effect of earthquakes on Christchurch dunes and back-dune areas - Rodney Chambers – Christchurch City Council & Dunes Trust Trustee
- 10:00-10:30 Morning tea (30 mins)**
- 10:30-12:30 Plenary Session: Nelson/Tasman Stories**
- 10:30-11:00 Kokorua - Roger Gaskell / Helen Lindsay - Department of Conservation
- 11:00-11:30 Motupipi sandspit - Hans Stoffregen - Department of Conservation
- 11:30-12:00 Coastal vegetation sequences - Shannel Courtney - Department of Conservation
- 12:00-12:30 Pest Plants in the Coastal Environment of the Nelson/ Tasman Region - Brad Myer - Kaitiaki o Ngahere Ltd
- 12:30-1:30 Lunch (60 minutes)**
- 1:30-4:20 Field trip: Rabbit Island**
- 1:30 pm Buss departs conference centre to Hunter Brown on Rough Island**
- 1:50-2:50 Hunter Brown – discussion topics:
Rabbit Island general overview - Stephen Richards
Coastal totara forest - David Bergin
Archaeology - Steve Bagley
Waimea Inlet Forum - Gillian Bishop
Predator trapping – Don Cooper
Bird Island - Michael Millar
- 2:50-3:30 Travel by bus to Rabbit Island boat ramp – discussion topics:
Bell Island sand spit restoration planting - Verdun King
Bell Island sewage treatment plant - Johan Thiart
- 3:30-4:20 Afternoon tea, inspect foredune plantings and walk on beach**
- 3:30-4:20 Inspect foredune plantings and walk on the beach – discussion topics:
Forest Management – Peter Wilks – PF Olsen Group
Dunes history before Coastcare – David Sissons
Coast Care – Stephen Richards
- 4:20 Poroporoaki – conference closes
- 4:30 Conference delegates going on Golden Bay/Farewell Spit fieldtrip take bus directly to Takaka
- 4.30-5:00 Remaining conference delegates return by bus to Tahuna Conference Centre

4. Presenters and their subjects

(in order of first name)

Bradley Myer

Bradley Myer is a director of Kaitiaki o Ngahere Ltd. He came to Nelson in 2006, bringing over 12 years of experience in ecological restoration. He is passionate about his work and constantly looking for better ways of managing our natural areas. He has a personal interest in working with the community and assisting private landowners with management of Significant Natural Areas. His work includes controlling coastal weeds such as the invasive succulent species *Wilsonia backhausei* in Waimea Inlet. He will give a presentation on pest plants in the coastal environment of the Nelson / Tasman Region. This will cover some of the pest plant species and issues affecting dunes and coastal environments from Kokorua in the east to Farewell Spit in the west.

Eric Verstappen

Eric is a Resource Scientist (Rivers & Coast) with the Tasman District Council. Eric has been working in the regional government sector since 1986, having graduated from the former Ministry of Works and Development. He has specialist interests in river and coastal processes, investigations, hazard assessment and resource management processes and planning. He champions the sustainable and holistic management of river and coastal environments, particularly with respect to hazard management and mitigation. He will outline how coastal management in the Tasman Bays is changing in the face of the threat of sea level rise.

Hans Stoffregen

Hans is the Department of Conservation's Golden Bay programme manager for biodiversity. He will speak about Motupipi sand spit, a dune restoration project that began in 2001 in collaboration with Manawhenua ki Mohua iwi, aiming to re-establish pīngao as a weaving resource to Golden Bay. Restoration work on the exotic-dominated Motupipi spit dunes was soon extended to include spinifex and back dune species, though a large fire about three years ago destroyed much of the earlier restoration planting. Planting is guided by sound ecological principles and ongoing learning based on results at the site. This is one of the local sites that will be part of the post-conference field trip to Golden Bay.

Jason Murray and Aroha Armstrong

Jason and Aroha are the main drivers of the Matakana Island Marine Club, a group that is working to restore and conserve the natural habitats of their land to ensure that the mauri of the island is enhanced and the next generation can reap the benefits of having access to their natural and cultural heritage. WWF (World Wide Fund) has supported their projects, along with local councils and business. The shoreline of Matakana Island was severely affected by the Rena stranding. Jason and Aroha will explain the effects of the stranding of the Rena and the importance of maintaining matauranga maori through education and employment and through restoration of our taonga and fragile ecosystems.

Jim Dahm

Jim is a trustee of the Dune Restoration Trust. He is an earth scientist with 30 years' experience in coastal geomorphology throughout New Zealand with particular experience in coastal restoration and coastal hazard management. He was responsible for the initiation of community based dune restoration in NZ and has been active in this area for over 20 years. His talk will outline progress on the Dunes Trust's back dune restoration project.

John Mitchell

John Mitchell (Ngāti Tama, Te Atiawa, Taranaki Tūturu, Ngāti Toarangatira and Ngāti Kinohaku) is tangata whenua of Mohua (Golden Bay). He lectured at University of Canterbury for seven years, ran the Cobham Outward Bound School at Anakiwa for five years, and represented Māori interests on a number of local, regional and national bodies. For the past 25 years Hilary and John have operated Mitchell Research, which does contract work on general social issues, as well as Māori historical investigations, Treaty claims, Māori biographies and whakapapa. Together they authored the three-volume *Te Tau Ihu o Te Waka*, a comprehensive history of Māori in Nelson and Marlborough, and are currently working on Volume IV. They have recently held fellowship appointments at Victoria University and the University of Canterbury to further their researches of local Maori history. John will briefly sketch the long history of human settlement of the coast of Te Tau Ihu o Te Waka a Maui (the prow of Maui's canoe).

Julian Fitter

Julian is a naturalist, conservationist, writer and lecturer with a particular interest in island ecosystems. He became involved with a conservation group looking after the endangered New Zealand Dotterel that breed on Maketu Spit. The group has since grown to become the Maketu Ongatoro Wetland Society (MOWS), and is implementing a Biodiversity Management Plan for the spit. Considerable disruption was caused by the stranding of the MV *Rena* on Astrolabe Reef, and MOWS was part of the clean-up and recovery effort from day one. Julian will talk about the ecological recovery programme and the impact of the wreck of the *Rena* on the ecosystem of the Bay of Plenty coast, the actions taken and lessons learned.

Ken Grange

Ken has been the Nelson Regional Manager of the National Institute of Water and Atmosphere (NIWA) since 1994. He is a marine ecologist with a PhD in marine ecology from Florida International University. He played a pivotal role in bringing coastal experts together to work out the best way of managing coastal erosion at Nelson's Tahuna Beach in 2003. He will provide an introductory overview of the currents, nutrient/sediment inputs and fisheries of Tasman Bay.

Lindsay Barber

Lindsay leads Nelson City's parks team. He's responsible for Tahunanui Reserve, the jewel in the crown of Nelson's large network of parks, street gardens, horticultural gardens, sportsgrounds, cemeteries, water catchment conservation and landscape reserves, esplanade and foreshore reserves. He will take us to look at the programme that is transforming the Tahunanui dunelands from an eclectic mixture of exotic trees and shrubs to a showpiece of New Zealand coastal vegetation. This has been achieved through grant funding, school group and community involvement.

Lynne Hall

Lynne works as a Land Management Adviser for Nelson City Council. She has over 12 years experience in local government - working with private landowners, and environmental agencies and organisations to promote riparian management and biodiversity protection and enhancement. Lynne is currently managing a dune restoration project on private land at Delaware Spit which has involved working closely with the community, nurseries and DOC staff to plan the project and obtain eco-sourced plant material from nearby Kokorua sandspit.

Rodney Chambers

Rodney is Coastal Area Head Ranger of the Transport and Greenspace Unit, Christchurch City Council. He is responsible for restoration and management of some 45 km of beach and sand dunes from Waimakariri River to South Spit along the Christchurch coast. He will explain that the estuary shore of South New Brighton was strongly impacted by the Canterbury earthquakes, with the ground levels of parts of it dropping. The consequent invasion of saline water has killed many mature trees and has precipitated a review of the way the coastal reserves can be managed and used.

Roger Gaskell and Helen Lindsay

Roger is the Motueka-based Department of Conservation Ranger: Biodiversity. Helen, an ecological restoration specialist with considerable experience in managing restoration planting and weed control operations around New Zealand, is preparing vegetation management and restoration plans for several DOC reserves in the Nelson Bays region. Roger has been working on the restoration of the original dune vegetation at the remote Kokorua sand spit and Helen has written the management plan. They will outline the history of the spit and its vegetation, its condition when they started their restoration project, and progress to date.

Shannel Courtney

Shannel is a threatened plant technical support officer with the Department of Conservation in Nelson. One of Shannel's many achievements is completing baseline botanical surveys to create a comprehensive range of plant species lists that covers the majority of the two million hectares of national parks, reserves and other public conservation land at the top of the South Island. Shannel also supervised the establishment of the Nelson herbarium and collected most of the plant species in the herbarium. He prepared the revegetation plant lists used by Nelson and Tasman Councils to guide native plant selection throughout the Nelson Bays region. He will reveal some of the special plants of the Tasman Bays coastline.

Simon Moore

Simon is an ecologist with the Department of Conservation based in Nelson. He has over a decade's experience working on multi-agency groups working towards the protection of terrestrial ecosystems in the Nelson and Marlborough regions. He has provided technical advice and support for a number of coastal and dune projects locally including Kokorua sandspit and Otuwhero coastal wetland. Simon is leading the organisation of the conference and will assist with the Farewell Spit Tour commentary.

Stephen Richards

Stephen is a Landscape Development Officer for TDC and this involves developing and maintaining Council reserves in and around Tasman Bay. Over the last ten years Stephen has been co-ordinating Coastcare beach projects from Rabbit Island around the coastline to Torrent Bay, liaising with coastal communities, planning and implementing coastal reserve projects and organising community working bees. Stephen will introduce the Western Tasman Bay area including some of the beaches which will be visited during the conference field trips, he will also speak about coastcare projects at various sites on the field trips, outlining brief history, challenges, successes and failures.

5. Field trip maps & notes

Thank you to D. Sissons (fieldtrip notes), S. Richards (maps) and staff at Nelmac (katipo factsheet) for compiling the following information. Your input is greatly appreciated.

Tuesday 5th March: Tahuna Beach walk.



Sourced from Land Information New Zealand data. Crown copyright reserved. Aerial photography copyright TerraLink International Limited. Imagery flown October 2010 - April 2011. The information on the map is prepared for indicative use only and is not intended for definitive legal, location or formal reference purposes. Map printed: 16 Feb 2013

History of the formation of Tahuna beach

The area between Tahuna Beach and Annesbrook, and bounded by the Blind Channel and Port Hills in the west and east respectively, is geologically very young, having accumulated during the last 6,500 years, after the sea rose to its present level and formed Tasman Bay.

When the first European settlers arrived in Nelson, the area that we now know as Tahuna Beach was crossed by the main channel draining the Waimea Inlet alongside Beach Road, which was referred to as the Waimea River. At low tide the intertidal sandbank of Rabbit Island extended from the present location of Rabbit Island across to the western end of the present Tahuna beach. This was known as the Waimea Bank, and is shown in Fig 1. The eastern side of the Waimea River channel ran through the carpark and the Beach Café north of Hounsell Circle, and the roller skating rink was in the middle of the channel. This channel was well used by early sailing ships, both as a sheltered anchorage for ships waiting for the opportunity to enter the Haven across the shallow reefs between Fifeshire Rock and Haulashore Island, and as access to a favoured landing spot off Parker's Cove at the foot of Parker's Road .



Fig 1: Channel of the Waimea River draining the Waimea Inlet in 1867

A new channel draining the Waimea Inlet broke through the Waimea Bank in the 1870's. This break isolated the eastern part of the Bank, and greatly reduced the scouring flow in the previous channel through what is now the back beach, with the result that the sea started to roll the sand southwards, filling the old channel. By 1875 the old channel could no longer take large ships, being only 5 feet deep at low tide, and by 1882 it was dry at low tide.

A proposal was aired in 1886 to block off the new Waimea Inlet channel with a "breakwater" 184 chains long (3,700m) and to dredge the old outlet, through the middle of the present beach, at an estimated cost of over £100,000, but it was considered to be financially impossible.

Many other lavish schemes were suggested by Nelson citizens. One was for a new entrance to be excavated through the Boulder Bank near the lighthouse, thus by-passing the problem area. This was chosen as the best solution and the cut was officially opened in 1906. Tahuna Beach was steadily building up. By 1900 the present area of Tahuna Sands Reserve was largely formed, but most of it was an intertidal sandbank, completely inundated at high tide (Fig 2).



Fig 2: View south-west along Rocks Road and over the forming beach in the 1890s. (Nelson Provincial Museum: Brusewitz collection 6x8 355, copy ref: 1346)

By 1923, when the Department of Lands and Survey mapped the extent of the dunes on a plan of the city of Nelson and Tahunanui Town District (Fig 3, right), the line of dunes along the north side of the reserve was well established. The front beach was some way south of the present beach, with the beach top above high water running through the present roller skating rink, the tennis courts and the south side of Bisley Walk.

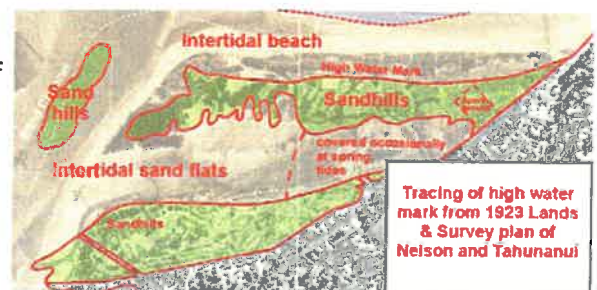


Fig 3: Dunes and high water mark in 1923. (Nelson Provincial Museum)

By the time Fig 4 (over page) was taken in 1942, the beach was in much the same form as today. However it

extended a long way further to the west. Today the shore of the Blind Channel cuts through the left-hand side of the stand of pine trees. The Blind Channel and its sand spits have been steadily migrating eastwards since they were first formed in the 1870s, while the front beach has been accreting northwards.



Fig 4 (left): Oblique aerial photo taken to show the 1942 wartime airforce encampment off Bolt Road (in foreground). (RNZAF official, via Air Force Museum).

Coast Care at Tahuna Beach

Since the whole of the beach/dune system has been formed since about 1910, it has no original vegetation cover. All of today's plants have been established as part of the management of the reserve. It is likely that marram was planted in the early years of the last century, and it can be seen growing strongly in Fig 5, along with the pines as young trees. Yellow lupins soon followed.

Subsequently, large numbers of exotic coastal trees and shrubs were established on the dunes, such as Australian wattle and tea tree, tamarisk and tree lucerne.

However, reserve management changed after a new stormwater channel was constructed alongside Rocks Road in 2005. This work included the reconstruction of 250 metres of foredunes at the eastern end of the beach, and their stabilisation with spinifex and pingao.



Fig 5: View over the beach in 1925/6 (Nelson Provincial Museum: Cawthron collection 1425)

Since then the City Council has carried out an ambitious programme of extending the foredune spinifex and pingao along the full length of the beach and replacing the backdune exotics with native species. Numerous schools and community groups have been helping with the work.

An explanation about names

The beach reserve was first known as The Sands, the name given to the property before the Council purchased it. On the 1923 Lands and Survey plan it was labelled as City Council Sands Reserve, and by then it was popularly referred to as the Sands Reserve.

The locality was named Tahuna in 1902, in a naming competition with a prize of One Guinea.

In 1908 a post office was established in Muritai Street. Because there was already a Tahuna Post Office near Morrinsville, the name Tatahi, meaning "seashore", was selected by officials to avoid confusion. The locals ignored the new name and lobbied for it to be changed. Finally in 1911 the Department agreed to change the official name of the post office to Tahananui.

To this day most people use the name Tahuna, and this is reflected in the name of the motor camp - Tahuna Beach Holiday Park. However, the Nelson City Council uses the official name of Tahananui. At this conference we will use both names.

The Katipo spider *Latrodectus Katipo* or *L. Atritus*

Our native spider - under threat and rarer than the kiwi



The Katipo's reputation is well known: it has the distinction of being the sole native species to be treated with caution. Only the adult female is capable of biting humans. However, the spiders are a retiring lot and confined to coastal beaches so the chances of being bitten are remote.

There are two native Katipo species in New Zealand. The best known of the two is *Latrodectus Katipa*. The adult female is black with a bright red dorsal stripe and a partial red hourglass patch on the underside of the abdomen. Many adult female have faint white lines bordering the dorsal stripe. In both species the body length can be 8-10mm long most of which is the abdomen (which is the size of a garden pea). The male of both species is one sixth the size of the adult female. They are predominantly white with a series of red-orange diamonds running along the dorsal region of the abdomen.

Habitat: both species occupy coastal dune systems, their web sites are located at the base of low growing shrubs and dune grasses, driftwood and other debris and refuse found on beaches. They are often in medium density grasses on sloping ground facing north-west. They like to avoid damp and prefer warmer well-lit surroundings.

Courtship, Mating and Egg-Laying: The female Katipo can reside in her web for long periods of time as long as food is available. The male locates her in the web and approaches her vibrating the web as he goes. With periods of cautious advances and courtship consisting of bobbing and plucking the web and the male being chased away from the female. The male grooms himself throughout the event which lasts 10-15 minutes. When he is finished he moves away to groom himself again. The male does not fall victim to the female as is commonly believed.

Threats to the Katipo: The Katipo is a vulnerable species. Both species are assessed as Category B threatened species. Dune modification and reduction through agriculture, grazing, urbanisation and recreational use may contribute to the reduction of the Katipo.

Another threat to the Katipo may be the South African spider *Steatoda capensis*. Both exist in the same habitat but *S. capensis* breeds faster, recolonises quicker after storm damage and aren't so fussy about their diet.



Information generally sourced from 'Investigation into New Zealand *L.katipo* spider at three geographical areas in Nelson and Golden Bay region' Study by Nelmac Conservation Team member John Amosa. References are cited in the document. Photos; John Amosa, Nelmac.

Wednesday 6th March: Field trip to Riwaka, Kaiteriteri & Marahau

Dunes Restoration Trust 2013 Conference
 Day 2 Field Trip - Riwaka, Kaiteriteri, Marahau coastline



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Geology

A band of Separation Point granite runs south from Separation Point (separating Golden Bay from Tasman Bay), down through Abel Tasman National Park, and then up the Motueka River valley and on to Mount Murchison. It was intruded into older sediments some 114 million years ago. It is a very coarse-grained and easily eroded granite, the weathering of which is responsible for the golden sands, rock-strewn streambeds and the many interesting coastal formations of this coastline. It also gives rise to characteristically infertile soils.

It makes for unstable hillsides, high bed loads in the rivers and streams, sand-choked estuaries and steep beach profiles. It also leads to very different coastal dynamics from the traditional model relied on by Coast Care advocates. The large grain size means that greater wave energy is needed to move the sand up the beach, and that only strong on-shore winds can move it from the beach into dunes. As a consequence, most beaches are simple beach ridges, rather than being backed by undulating dunes. Exceptions to this can be seen in a few places such as at the exposed Tata Beach, in Golden Bay, and at Totaranui.

Because of this, little spinifex and no pingao is likely to be found behind the beaches of Abel Tasman National Park and around Kaiteriteri, where the beach ridge vegetation is typically dominated by gorse and mahoe.

Over 22,000 tonnes of Separation Point granite was dug from a roadside cutting in Golden Bay and transported to Wellington for the Oriental Bay beach re-nourishment in the early 2000s. This was not beach sand, it was deeply weathered basement rock.

Tapu Bay

Tapu Bay Reserve is on the south side of the headland bounding Kaiteriteri cove. It adjoins residential sections on all sides except the foreshore to the south. Stephens Bay Esplanade Reserve lies between the recreation reserve and the sea.

The foreshore of the Reserve area has a history of minor erosion and over the years has been slowly crumbling and falling into the sea. In early 2010 three picnic tables were relocated back from the reserve edge as they were under threat of falling onto the beach and a midden had been exposed along the beach front scarp.

In 2010 Tasman District Council proposed re-grading the eroded edge and planting with appropriate coastal dune species, the community rejected that proposal and presented an option to build either a timber wall or rock wall. Two community meetings have been held and no clear decisions have been agreed to between the Community and the Council as to the preferred beach management option.

Kaiteriteri

Māori Settlement. Kaiteriteri and the surrounding coastal areas were well suited to early human settlement because of the sheltered and abundant supply of fish and shellfish, a good climate for kumara crops, and nearness to the Nelson area argillite quarries that supplied good quality stone tools.

Both oral tradition and archaeological surveys suggest that Kaiteriteri itself was an unfenced village by the shore, with a defensive Pā on Kaka Pā Point. Kaka Pā was unoccupied at the time of European settlement, and unfortunately not much is left of it today, due to what little remained being bulldozed in the 1970s to make way for the access road and car park which now sit atop of the site.

European settlement. The New Zealand Company knew there was going to be a place called Nelson and they wanted it to be in the South Island. In May 1841, three New Zealand Company exploration ships sailed to New Zealand for this second settlement, under the command of 42-year-old Captain Wakefield. They arrived in Wellington in late August - early September 1841. In October they set out again to find a location for Nelson.

They anchored at Astrolabe Roadstead (now in Abel Tasman National Park). A search for land commenced in dense forest at Astrolabe Roads, where extremely strenuous journeys were undertaken by their surveyors, much of it being due to false reports of land by other searchers. The vessels remained at anchor in Astrolabe Roads for four weeks.

Kaiteriteri Cove was visited on 9th October, 1841. A plaque erected near the boat ramp marks the spot where water casks were replenished, and search for land continued. Long journeys were again undertaken by the surveyors, who travelled many miles over several days and returned in an exhausted condition, and with clothing destroyed. Land was not found.

The local Māori told Wakefield of their fishing grounds at Te Whakatū (present-day Nelson city). A party went by boat to the eastern shore of Tasman Bay to investigate. On the other side of the natural breakwater – the Boulder Bank – they saw the harbour that became known as Nelson Haven, and Wakefield chose it as the settlement site.

Kaiteriteri motor camp

In 1916, farmer Syd Rowling bought 136 acres of thick gorse covered land out at Kaiteriteri as an extension to his orchard property in Riwaka. The sandy Kaiteriteri soil was not suited to producing good apple crops, so after 10 years of hard work, Syd pulled out the orchard trees and planted pines and gum trees.

By the early 1920s a road from Nelson was coming closer and despite the last sections still being only long tracks through the mudflats, holiday makers began arriving, by horse and cart and by boat, throughout the summer to enjoy Kaiteriteri's golden sands and beautiful bay. Initially Syd ran an informal arrangement with campers by hiring out tent sites, but as it became more popular, he set aside 12 hectares near the beach as public domain land.

In 1936 the future of Kaiteriteri as a national holiday destination was confirmed in a public meeting where Syd was nominated as the first chairman of the new Kaiteriteri Domain Board. The Board got started right away with organising better camping arrangements, such as camping boundaries, clean water, toilets, and even a public phone.

With the 1930's Depression at hand, the Government used the available cheap labour to finish the road from Riwaka to Kaiteriteri, finally easing the long journey across the mudflats at low tide previously needed to reach Kaiteriteri.

Today

Kaiteriteri Beach is the settlement's main drawcard. Unusually, the Recreation Reserve property includes the beach. Since 1989 the Kaiteriteri Recreation Reserve Board has been responsible for managing and administering, not only the beach itself, but also the motor camp, local store, the Shoreline Café & Restaurant, and 250 hectares of reserve land.

Much of the Board's focus in the last 12 months has been with the Management and Development Plans. Finalising a Development Plan which serves all seasons for 20-30 years forward is challenging. As part of the process we received submissions from campers, concessionaires, day visitors, residents and holiday home owners on both plans. All were considered and as a result the Board has requested the designer re-visit some aspects of the Development Plan.

The Beach

On 10th April 1968 Cyclone Giselle hit Wellington and caused the Wahine Disaster, and it also totally destroyed the Kaiteriteri beach front. The decision was made to cart rocks from the northern end of the beach and place them on the foreshore. Once the rocks were in place, truckloads of granite were carted from the old Dump Site and placed on top of the rocks until they were totally covered.

The rocks cannot be seen, and they could be considered to be a buried backstop in the event of another severe erosion event. The sand cover along the beach is managed by the Board, which has resource consent for a regular re-contouring exercise. Sand is excavated from the tidal delta at the south end of the beach and spread along the rest of the beach in front of the motor camp.

Marahau

History

Māori occupation of Marahau undoubtedly goes back many centuries, but there is little oral tradition, as a result of the waves of invasion from the North island between 1750 and 1840. Some 14 hectares of Maori horticultural soils have been identified in the Sandy Bay Marahau area. The deliberate alteration of the soil (usually through the introduction of gravel and charcoal) was to improve the drainage, warmth and moisture retention in the soil, necessary for the successful cultivation of kumara in temperate climates.

Following the European settlement of Nelson in 1841, sections at Sandy Bay were surveyed in 1857 and some 300 acres of bush land at Marahau were taken up by David Drummond in 1863. All settlers were operating sawmills in the seventies and eighties but by the 1890s the timber had been cut down and they had left the valley. The first hop gardens were planted in the 1870s and tobacco was grown in Marahau from about 1927. The end of the tobacco crop in 1993 was also the end of significant farming in these valleys, as the attempts at dairying, sheep and beef production and kiwi fruit were not economically successful.

The rural economy has been largely replaced by tourism, with some commercial forestry on the steep hinterland. With the growing international appeal of the National Park, Marahau, its southern entrance, is a thriving tourist settlement which buzzes with activity over the summer months, as the community's population expands to more than five times its off-season size. Much of the activity is generated by water taxi operators ferrying visitors to and from the Park and by kayak rentals catering for tourists who want to explore the coastline at a gentler pace.

Birdsong Trust and Project Janszoon

In 2007 the local tourism operators got together with others in the local community and with the Department of Conservation to establish the Abel Tasman Birdsong Trust. It aims to protect and enhance biodiversity and improve the visitor experience in Abel Tasman National Park, and to this end it maintains trap lines for the control of rats, stoats, wasps and possums. The Birdsong Trust has also completed year 1 of a four year programme to eradicate both seedling and seeding pines from the coastal areas of the Park from Marahau to Totaranui.

Their efforts are now complemented by Project Janszoon, which plans to transform the ecological prospects of the Abel Tasman National Park over the next 30 years by investing in measures which reverse the incursions of predators and weed species in the Park, restore key elements of the ecosystem including key species and key ecological associations, re-establish stable populations of lost or threatened birds, plants and animals, and strengthen the community of support around the Park.

Coastal protection

In 2004 some 650 metres of the Marahau shoreline were lined with granite riprap. This was a reconstruction and relocation of the earlier rock protection alongside Marahau Road, where erosion had been affecting both the road and the beachscape. As well as improving protection of the roadway and allowing it to be widened by 25 metres to cope with the growing vehicle and pedestrian traffic, a new boat ramp and jetty were constructed. This was done because the existing boat ramp was close to the road and the growing number of water taxi operations were causing conflict with traffic travelling along the road.

A groyne was added to help stabilise the beach, and sand was taken from Otuwhero sand spit for beach replenishment. The work was done to reduce risks from coastal erosion and flooding, and to improve parking facilities and traffic management. It made for greatly improved access to the sea by the water taxi services operating out of Marahau.

Raumanukas, Motueka

Manuka's Bush, The Kumaras, Raumanuka, Murphy's Harbour, and Te Kumara are all the same place: the area at the end of what is now Staples Street that served as Motueka's harbour until 1856.

By the 1840's Māori were cultivating both traditional crops like kumara as well as European crops. Kumara had long been a staple in the Māori diet and an extensive crop had been planted sometime before the arrival of the European settlers.

The crops may have had the distinction of lending their name to the place, but it was not the kumara or even the old wakas and carvings strewn along the foreshore that stood out most to early European settlers. It was the smell: the pungent smell of drying fish.

Eels and whitebait were caught in the river and other fish were also brought back from the fishing grounds at Astrolabe. The day's catch was hung outside over poles to dry and the fish would later be rehydrated and boiled before eating.

In 1842 one of the earliest settlers to the region, Captain Frederick Moore, built himself a wooden jetty at the harbour. Moore never had legal title to the land he occupied, but he was allowed to use it, mainly because he was married to a Te Ati Awa woman named Paru. He eventually fell out of favour with his in-laws for selling off subsections.

Moore's wooden jetty stood among some very tall manuka trees. The trees were so tall they could be seen from Riwaka and, it is because of these trees, that the harbour became known as Manuka's Bush and Raumanuka.

By 1856 the harbour had silted up too much and a new wharf was built one mile south at Doctor's Creek. The first harbour remained a popular fishing spot into the 1920s and 1930s. For a while it housed an early abattoir, and later it became a general rubbish dump, including car bodies etc. The local fishing company used the foreshore to dump scallop shells, which can be seen on many of the beaches around the inlet.

The site is now a Department of Conservation reserve, and in September 2008 Beth and Tony Bryant, under the umbrella of Forest & Bird, received funds to restore the native vegetation. Beth acknowledges the advice of DOC staff Roger Gaskell and Shannel Courtney on what is best to plant where.

Thursday 7th March: Rabbit Island

Dunes Restoration Trust 2013 Conference
Rabbit Island and neighbouring islands



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Rabbit Island and Rough Island

Rabbit Island (known as Moturoa to Māori) is a barrier island which separates the waters of Waimea Inlet from Tasman Bay. Along its seaward side there are more than eight kilometres of safe sandy beach. This is the largest picnic area in the district.

Rabbit Island was reserved as a quarantine ground in 1854, and in 1869 the purpose of reservation of a hundred acres in the southern part of the island was changed to gravel. The eastern half of adjoining Rough Island (Motuiti) was reserved for gravel in 1869.

As early as 1856 Rabbit Island was a popular venue for horse racing and for recreational excursions. In 1909 its purpose was changed to a public recreation ground and a Domain Board was formed to manage it. They arranged annual public planting days, leased part of the reserve, and allowed some harvesting of manuka.

The dunes on both islands became increasingly mobile, and in 1920 it was decided to vest a large part of the reserve in the Waimea County Council and to establish a pine forest to stabilise the sand.

Planting of the forest began in 1921, and it has subsequently gone through several cycles of harvesting. Since 1996 forest growth rates have been boosted by more 40 to 50 percent through an innovative programme of spreading bio-solids from the nearby Bell Island sewage treatment plant. They are said to be some of the fastest growing Radiata trees in the country.

Large areas of the islands were kept as domain and subsequently became recreation reserve. An equestrian park was established on Rough Island in 1993, and mountain bike trails have been opened up through parts of the forest in recent times.

The island is seen by many as a potential venue for their favourite activities. For instance, in 2009 consideration was given to replacing part of the forest with a flat water rowing / kayaking / water-skiing course. A feasibility study is currently being drafted to identify the matters that will need further investigation.

A Coast Care programme for the front beach was anticipated in the 1989 management plan for the reserve. Following the establishment of a trial plot to see if spinifex would grow there, implementation began in 2003. Some 900 metres of the beachfront have now been planted. This has been accompanied by a staged programme of moving the roadways back from the beachfront.

Waimea Inlet

The Waimea Inlet is the largest enclosed estuary in the South Island. It is 3,455 ha in area, with an internal coastline of 65 km. Being separated from Tasman Bay by Rabbit Island and Rough Island, it contains eight other islands, most being public land while three are in private ownership.

The Waimea River flows out to the two estuary mouths each end of Rabbit Island. It is shallow and well-flushed. The inlet is a large open space alongside fast-growing urban centres.

Archaeological records show occupation and use of most of the islands around the inlet. Much of this would appear to have been seasonal, with permanent kainga (villages) established at Mapua's Grossi Point and at Appleby, a little way up the Waimea River.

The inlet is of international significance for migratory bird species and is of national significance for other endangered or threatened species. These include birds such as bar-tailed godwit, white heron, royal spoonbill, little egret, Australasian bittern, and banded rail, and plants such as coastal peppergrass and grey salt bush.

The inlet is well used for recreational activities such as walking, cycling, boating, bird watching, dog walking, game bird hunting and whitebaiting, as well as for picnics and social gatherings.. The recently opened Great Taste cycle trail from Nelson to Mapua, around the shores of the inlet and across Rabbit Island, is already boosting recreational appreciation of the locality.

Approximately 170 hectares of intertidal habitat has been lost to reclamation, most of which occurred prior to 1980. Episodes of heavy sedimentation occurred in the 1960s and 70s affecting some of the more enclosed parts of the inlet. During periods of high rainfall, elevated levels of disease-causing organisms can be flushed into the inlet. There is some localised residual historic effect of toxins from various industries and landfills, such as the Richmond industrial area and the now-remediated Fruitgrowers Chemical Co. site at Mapua.

Waimea Inlet Management Strategy

In 2010 Nelson City Council, Tasman District Council, the Department of Conservation and the Nelson-Marlborough Fish and Game Council got together with the local community to agree on a long term commitment to protect and enhance the inlet.

The Waimea Inlet Management Strategy is a collaborative inter-agency strategy that brings together the communities of Tasman and Nelson and the many groups who have an interest in, and a commitment to, the Waimea Inlet and its sustainable future. It supports the respective Councils' Long Term Plans, and hence it supports the vision and community-sourced outcome statements of those documents. It guides the Councils' decision-making across all departments, influencing not only statutory resource management but also provision of infrastructure, services and all areas of Council involvement. It is also empowering a growing number of people to engage in practical projects and initiatives around Waimea Inlet, and to make new connections to one another and to the values of the inlet.

Bell Island

The Nelson Regional Sewerage Scheme is the largest single project ever undertaken by local authorities in the Nelson region. It is a unique solution to an environmental problem facing every community – the safe and proper disposal of its wastes.

Its construction is the result of the efforts of three neighbouring local authorities and three major industries that co-operated over a ten year period to find an acceptable method of dealing with domestic and industrial wastes that, in the past, severely polluted the shallow and ecologically sensitive waters of the Waimea Inlet.

The need for such a scheme arose from the classification of the waters of the Waimea Estuary and adjacent areas of Tasman Bay. This demanded higher effluent standards than previously necessary.

In 1970, Nelson City Council realised the effluent from its Stoke treatment plant was not likely to meet the new requirements and commissioned a report that identified the inadequacies of the system. The report recommended the best long-term solution, both economically and environmentally, would be to build a combined scheme with Richmond Borough and the industries that had been established in nearby Waimea County. At the same time, Richmond Borough was considering upgrading its treatment plant and outfall, while the industries were discharging untreated wastes into the estuary.

As a result, in 1973 the Nelson Regional Sewerage Committee was set up with representatives from Nelson City, Richmond Borough and Waimea County councils. It opted for a scheme for collection, treatment and disposal of domestic effluent from the Stoke-Tahunanui suburban area

of Nelson city and all of Richmond Borough, and industrial effluent from the four major industries sited on the edge of the estuary – then the Apple and Pear Board’s processing factory, the Nelson freezing works, Nelson Pine Forest’s chip mill and Kempthorne Prosser fertiliser works. In 1977 the fertiliser works withdrew from the scheme. Today, these businesses are: ENZA foods site, Alliance Freezing works and Nelson Pine Industries.

The committee started with selecting a site. Four alternatives had been put forward in the report. The favoured option involved building treatment ponds in the estuarine channel between Best and Bell Islands. However, after local objections, the committee reconsidered and in 1976 bought the 120ha uninhabited Bell Island as its site. Final construction was completed in 1983.

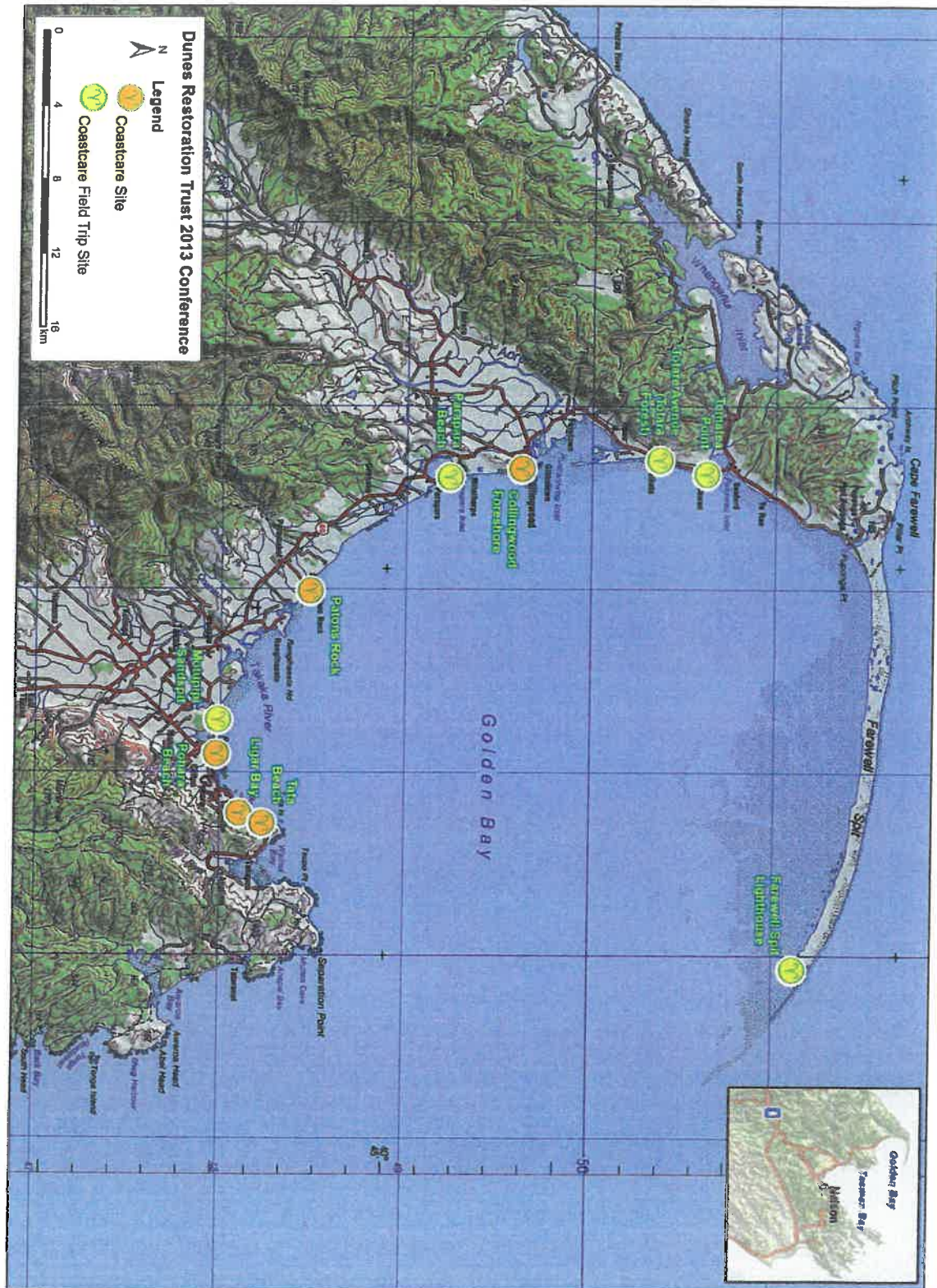
The object of the scheme is to provide a high degree of treatment with particular emphasis on bacterial reduction, and to discharge well treated effluent only on the early phase of the outgoing tide in a position which ensures rapid mixing and interchange with the sea.

The treatment and mixing assures public health safety and the release times avoid significant nutrient accumulation in the sensitive upper reaches of the inlet. The salt water rapidly kills the algae in the effluent and the now neutralised waste is flushed out into Tasman Bay. It was estimated that the number of faecal coliform (disease-causing bacteria present in sewage) at the estuary entrance will not exceed 60 per 100ml. This is well within the classification standard of 200 per 100ml. Monitoring every five years of the receiving environment shows a continual improvement in the water quality and benthic environment since the treatment plant was installed.

A plant upgrade in 1996 allowed for the application of high quality biosolids to be used as fertiliser on local forest areas. The forests at Rabbit and Bell Islands have experienced wood volume increases between 40 and 50 percent with negligible decrease in wood density. In addition, the soil now has a better structure.

In 2011 the mature pines on Bell Island were harvested. It was decided to re-establish native coastal vegetation in place of the former pines along a narrow peninsula in the north-west corner of the island. This land has now been planted by Plant Right Now, a dedicated volunteer group that sprang directly from the Waimea Inlet Forum, the community organisation tasked to promote the implementation of the Waimea Inlet Management Strategy.

Motupipi Sandspit / Golden Bay / Farewell Spit



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Registrations as at Wednesday 27th February, 2013. Please note any registrations made after this date will not be included in the following list. Registration details were copied directly from registration forms.

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Thank you for being part of the Dunes Trust Conference for 2013!