

Piripai Spit field trip

8 June 2019

Sarah Beadel

Eleven of us gathered together on a mild sunny winter day to explore the Piripai Spit (location shown on Figure 1) on the western side of the Whakatāne River mouth. We headed off in the direction of the Thornton kānuka (*Kunzea toelkenii* classed as Threatened-Nationally Critical; de Lange *et al.* 2018) to look for *Korthalsella salicornioides* (Threatened-Nationally Critical) which had previously been seen on the trees about 10 years ago (Paul Cashmore and John Hobbs, pers. comm.). We searched several trees before successfully locating a good-sized population of mistletoe. We found *Korthalsella salicornioides* on five separate kānuka trees (up to about 10 metres tall): three *Kunzea robusta*, one *Kunzea toelkenii*, and one *Kunzea robusta* × *K. toelkenii* (E1950870 N5792760). There were numerous *Kunzea* seedlings beneath the kānuka and the *Kunzea* was in flower.

We then made our way through the dunes to the coast, stopping to look at the thick swards of meadow rice grass (*Microlaena stipoides*) on the way, and closer to the coast another native grass (sand wind grass; *Lachnagrostis billardierei*). We also stopped to look at the native sand oxalis *Oxalis rubens*, which was scrambling through *Muehlenbeckia complexa* and also amongst sand wind grass.

Spinifex forms a good cover on the foredune with a few patches of pīngao (At Risk-Naturally Declining). We also found some marram, and control of this species should be undertaken before it becomes dominant.

Sand sedge (*Carex pumila*) was common along the toe of the foredune near the end of the Spit where we stopped for lunch, looking out to sea.

After lunch we walked back around the river margin and found a further five Thornton kānuka up to about eight metres tall on the scarp above the estuary (near E1951300 N5792764). Also in this area alongside the river we saw several of the estuarine native herbaceous species, including remuremu (*Selliera radicans*), ureure (*Sarcocornia quinqueflora*), māakoako (*Samolus repens*), and arrow grass (*Triglochin striata*), along with oioi and searush.



Another glorious day botanising on the Bay of Plenty coast. 8 June 2019.



Thornton kānuka in flower. 8 June 2019.



Korthalsella salicornioides on Thornton kānuka, 8 June 2019

References

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- Wildland Consultants 2013: Significant natural areas in the coastal environment of Bay of Plenty Region. *Wildland Consultants Ltd Contract Report No. 2837*. Prepared for Bay of Plenty Regional Council. 719 p.
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- Wildland Consultants 2013: Ecological significance assessments of the Lower Orini Canal and an adjacent part of the Piripai Dune System. *Wildland Consultants Ltd Contract Report No. 3251*. Prepared for Bay of Plenty Regional Council. 52 p.
- Wildland Consultants 2015: Northern New Zealand dotterel and banded dotterel habitat on the Piripai Spit and Ōhope Spit. *Wildland Consultants Ltd Contract Report No. 3456f*. 13 p.



Legend - Orini Canal Block - Piripai Block - Piripai Spit		Data Acknowledgment Map contains data sourced from LINZ Crown Copyright Reserved Report: 3251 Client: 01 1548 Ref: E:\GIS\PRIPAI\mxd\ Piripai Spit.mxd Path: E:\GIS\PRIPAI\mxd\ Piripai Spit.mxd File: Piripai Spit.mxd		Figure 1. Location of Piripai Block, Orini Canal and Piripai Spit		Wildlands www.wildlands.co.nz, 0908 WILDNZ Scale: 1:12,000 Date: 18/06/2020 Cartographer: LD Format: A4R	
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Vascular plants of the Piripai Spit, Piripai Block and Orini Wetlands

Sarah Beadel, 2019

Based on field work in 2013 in the Piripai Block and the Orini Block Wetlands (see Wildland Consultants 2013) and a Rotorua Botanical Society field trip to Piripai Spit in 2019. The location of each area is shown in Figure 1.

Key

- 2019 Piripai Spit -Observed 8 June 2019
- 2013 Piripai Spit - Observed 2013
- O Orini Block - Observed 8 June 2019
- P Piripai Block- Observed 8 June 2019

Indigenous Species

Monocot. trees and shrubs

Cordyline australis (O, 2019) tī kōuka, cabbage tree

Dicot. trees and shrubs

Coprosma repens (O, 2019) taupata
Coprosma robusta (2019) karamū, kāramuramu
Dodonaea viscosa (2019) (planted and natural) akeake
Kunzea robusta (2019) kānuka
Kunzea toelkenii (P, 2019) Thornton kānuka
Kunzea robusta × *Kunzea toelkenii* (2019)
Korthalsella salicornioides (2019) dwarf mistletoe
Metrosideros excelsa (2019) (planted) pōhutukawa
Myoporum laetum (O, 2019) ngaio
Piper excelsum subsp. *excelsum* (2019) kawakawa
Pittosporum crassifolium (O, P, 2019) karo
Pittosporum eugenioides (2019) tarata; lemonwood
Plagianthus divaricatus (O, 2019) marsh ribbonwood mākaka
Pseudopanax arboreus (O) whauwhaupaku, puahou, five finger
Pseudopanax lessonii (P, 2019) houpara

Dicot. lianes

Calystegia sepium × *C. soldanella* (P, 2019)
Calystegia sepium subsp. *roseata* (O, P, 2019) pōhue
Calystegia soldanella (P, 2019) panahi, shore bindweed
Muehlenbeckia australis (P, 2019) puka
Muehlenbeckia australis × *M. complexa* (P, 2019)
Muehlenbeckia complexa (O, P, 2019) pōhuehue

Ferns

Asplenium oblongifolium (2019) huruhuru whenua
Asplenium polyodon (2019) petako
Azolla filiculoides (O) retoretore
Cyathea dealbata (2019) ponga, silver fern
Cyathea medullaris (O, 2019) mamaku
Dicksonia squarrosa (O) whekī

<i>Pteridium esculentum</i> (P, 2019)	rārahu, bracken
<i>Pteris tremula</i> (2019)	turawera, shaking brake
<i>Pyrrosia elaeagnifolia</i> (P, 2019)	leather-leaf fern

Grasses

<i>Lachnagrostis billardierei</i> (P, 2019)	sand wind grass
<i>Microlaena stipoides</i> (P, 2019)	pātītī, meadow rice grass
<i>Spinifex sericeus</i> (P, 2019)	kōwhangatara, spinifex
<i>Zoysia pauciflora</i> (2013)	

Sedges

<i>Bolboschoenus caldwellii</i> (O)	pūrua grass
<i>Bolboschoenus fluviatilis</i> (P)	pūrua grass, kukuraho
<i>Carex pumila</i> (P, 2019)	
<i>Cyperus ustulatus</i> f. <i>ustulatus</i> (P, 2019)	toetoe upoko-tangata
<i>Ficinia nodosa</i> (O, P, 2019)	wīwī
<i>Ficinia spiralis</i> (P, 2019)	pīngao
<i>Isolepis cernua</i> (O)	
<i>Machaerina juncea</i> (O, 2019)	
<i>Machaerina rubiginosa</i> (O)	
<i>Schoenoplectus pungens</i> (O)	
<i>Schoenus maschalinus</i> (P)	

Rushes

<i>Apodasmia similis</i> (O, 2019)	oioi
<i>Juncus kraussii</i> var. <i>australiensis</i> (O, 2019)	wi, wīwī sea rush

Monocot. herbs (other than orchids, grasses, sedges, and rushes)

<i>Lemna disperma</i> (O)	karearea
<i>Phormium tenax</i> (2019) (planted and natural)	harakeke, flax
<i>Triglochin striata</i> (O, 2019)	arrow grass
<i>Typha orientalis</i> (P)	raupō

Dicot. herbs (other than composites)

<i>Callitriche petriei</i> subsp. <i>petriei</i> (O)	
<i>Haloragis erecta</i> subsp. <i>erecta</i> (P, 2019)	toatoa
<i>Oxalis rubens</i> (P, 2019)	sand oxalis
<i>Persicaria decipiens</i> (O)	tutunawai
<i>Pseudognaphalium luteoalbum</i> agg. (P)	pukatea
<i>Samolus repens</i> var. <i>repens</i> (O, 2019)	māakoako
<i>Sarcocornia quinqueflora</i> (O, 2019)	ureure, glasswort
<i>Selliera radicans</i> (O, 2019)	remuremu, rekoreko, raumangu
<i>Senecio bipinnatisectus</i> (O)	Australian fireweed

Naturalised and exotic species

Gymnosperms

<i>Araucaria heterophylla</i> (2019) (planted)	Norfolk Island pine
<i>Pinus pinaster</i> (2019)	maritime pine
<i>Pinus radiata</i> (2019)	radiata pine

Monocot. trees and shrubs*Phoenix canariensis* (O, 2019)

Phoenix palm

Dicot. trees and shrubs*Acacia mearnsii* (P)

black wattle

Allocasuarina sp. (2019)*Allocasuarina littoralis* (O)

she-oak

Banksia sp. (P)*Berberis glaucocarpa* (P, 2019)

barberry

Buddleja davidii (P)

buddleia

Ligustrum lucidum (O, P, 2019)

tree privet

Ligustrum sinense (O, P, 2019)

Chinese privet

Lupinus arboreus (O, P, 2019)

lupin

Lycium ferocissimum (P, 2019)

boxthorn

Malus ×domestica (O, P, 2019)

apple tree

Paraserianthes lophantha (2019)

brush wattle

Prunus ×domestica (2019)

plum

Prunus sp. (O, P, 2019)

ornamental cherry

Pyrus communis (O)

pear

Rosa rubiginosa (P, 2019)

sweet briar

Rosa sp. (O, P)

rose

Rubus phoenicolasius (2019)

Japanese wineberry

Rubus sp. (*R. fruticosus* agg.) (O, 2019)

blackberry

Salix cinerea (P, 2019)

grey willow

Salix ×fragilis (O, P, 2019)

crack willow

Salix matsudana 'Tortuosa' (O, 2019)

tortured willow

Solanum mauritianum (P, 2019)

woolly nightshade

Ulex europaeus (O, P, 2019)

gorse

Monocot. lianes*Asparagus asparagoides* (O, P, 2019)

smilax

Dicot. lianes*Araujia hortorum* (2019)

moth plant

Lonicera japonica (P, 2019)

Japanese honeysuckle

Grasses*Agrostis stolonifera* (O, P)

creeping bent

Ammophila arenaria (P, 2019)

marram

Anthoxanthum odoratum (O, P, 2019)

sweet vernal

Avena barbata (P)

slender oat

Briza maxima (P)

large quaking grass

Bromus arenarius (P)

sand brome

Bromus diandrus (P)

riggut brome

Bromus hordeaceus (P)

soft brome

Bromus willdenowii (P)

prairie grass

Cenchrus clandestinus (O, P, 2019)

kikuyu grass

Cortaderia selloana (O, P, 2019)

pampas

Cynodon dactylon (O, P, 2019)

Indian doab

<i>Dactylis glomerata</i> (O, P, 2019)	cocksfoot
<i>Digitaria sanguinalis</i> (P, 2019)	summer grass
<i>Ehrharta erecta</i> (P, 2019)	veldt grass
<i>Eleusine indica</i> (2019)	crowfoot grass
<i>Elytrigia pycnantha</i> (O, 2019)	sea couch
<i>Festuca rubra</i> (2019)	fescue
<i>Lagurus ovatus</i> (P, 2019)	haretail
<i>Lolium arundinaceum</i> subsp. <i>arundinaceum</i> (O, P, 2019)	tall fescue
<i>Lolium perenne</i> (P, 2019)	rye grass
<i>Paspalum vaginatum</i> (P, 2019)	saltwater paspalum
<i>Phleum pratense</i> (O)	timothy
<i>Poa annua</i> (P, 2019)	annual poa
<i>Poa pratensis</i> (P)	Kentucky bluegrass
<i>Sporobolus africanus</i> (P, 2019)	ratstail
<i>Vulpia bromoides</i> (P)	vulpia hair grass
Sedges	
<i>Carex divulsa</i> (P)	grey sedge
Rushes	
<i>Juncus bufonius</i> var. <i>bufonius</i> (P)	toad rush
Monocot. herbs (other than orchids, grasses, sedges, and rushes)	
<i>Agapanthus praecox</i> (P, 2019)	agapanthus
<i>Allium triquetrum</i> (2019)	onion weed
<i>Lilium formosanum</i> (2019)	Formosan lily
<i>Tradescantia fluminensis</i> (2019)	tradescantia
Composite herbs	
<i>Achillea millefolium</i> (P, 2019)	yarrow
<i>Aster subulatus</i> (O)	sea aster
<i>Erigeron sumatrensis</i> (O, 2019)	broad-leaved fleabane
<i>Crepis capillaris</i> (P, 2019)	hawksbeard
<i>Gamochaeta calviceps</i> (O)	silky cudweed
<i>Hypochaeris radicata</i> (O, P, 2019)	catsear
<i>Jacobaea vulgaris</i> (2019)	ragwort
<i>Lactuca serriola</i> (2019)	prickly lettuce
<i>Leontodon taraxacoides</i> (P, 2019)	hawkbit
<i>Osteospermum fruticosum</i> (2019)	rain daisy, dimorphotheca
<i>Sonchus asper</i> (P)	prickly puha
<i>Sonchus oleraceus</i> (O, P, 2019)	puha, sow thistle
<i>Taraxacum officinale</i> (P, 2019)	dandelion
Dicot. herbs (other than composites)	
<i>Anagallis arvensis</i> (P)	scarlet pimpernel
<i>Atriplex prostrata</i> (O, 2019)	orache
<i>Callitriche stagnalis</i> (O)	starwort
<i>Carpobrotus edulis</i> (P, 2019)	ice plant
<i>Cerastium fontanum</i> subsp. <i>vulgare</i> (P)	mouse-ear chickweed
<i>Cotyledon orbiculata</i> (2019)	pig's ear

<i>Daucus carota</i> (P)	wild carrot
<i>Dysphania ambrosioides</i> (2019)	Mexican tea
<i>Foeniculum vulgare</i> (O, P)	fennel
<i>Fumaria muralis</i> (P, 2019)	scrambling fumitory
<i>Galium aparine</i> (P, 2019)	cleavers
<i>Geranium dissectum</i> (O)	cut-leaved geranium
<i>Geranium robertianum</i> (P, 2019)	herb Robert
<i>Lepidium africanum</i> agg. (P, 2019)	pepper cress
<i>Lotus pedunculatus</i> (O, P, 2019)	lotus
<i>Lotus suaveolens</i> (O, P)	hairy birdsfoot trefoil
<i>Lythrum hyssopifolia</i> (O)	hyssop loosestrife
<i>Medicago lupulina</i> (P, 2019)	black medick
<i>Modiola caroliniana</i> (P)	creeping mallow
<i>Oenothera</i> sp. (P, 2019)	
<i>Ornithopus pinnatus</i> (P)	yellow serradella
<i>Orobanche minor</i> (P, 2019)	broomrape
<i>Oxalis articulata</i> (O, P)	sourgrass
<i>Paronychia brasiliiana</i> (O, P)	Brazilian whitlow
<i>Phytolacca octandra</i> (O, 2019)	inkweed
<i>Plantago coronopus</i> (O)	buck's horn plantain
<i>Plantago lanceolata</i> (O, 2019)	narrow-leaved plantain
<i>Polycarpon tetraphyllum</i> (P)	allseed
<i>Polygonum aviculare</i> (P)	wireweed
<i>Ranunculus repens</i> (O, P, 2019)	creeping buttercup
<i>Rumex acetosella</i> (P, 2019)	sheep's sorrel
<i>Rumex obtusifolius</i> (O, P, 2019)	broad-leaved dock
<i>Silene gallica</i> (P)	catchfly
<i>Sisymbrium officinale</i> (O)	wild mustard, hedge mustard
<i>Solanum nigrum</i> (P, 2019)	black nightshade
<i>Solanum nodiflorum</i> (2019)	
<i>Spergularia rubra</i> (O)	sand spurrey
<i>Trifolium dubium</i> (P)	suckling clover
<i>Trifolium pratense</i> (P)	red clover
<i>Trifolium repens</i> (O, P)	white clover
<i>Verbascum virgatum</i> (O)	moth mullein
<i>Verbena bonariensis</i> (P, 2019)	purple-top
<i>Vicia hirsuta</i> (O, P, 2019)	hairy vetch