

WANGANUI PLANT LIST 11

Vascular Plants of Santoft pine forest and adjoining lands, Bulls

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[NB: a separate list exists for Turakina R. mouth (including Koitiata Recreation Reserve): Wanganui Plant List 25]

Some vegetation types of the area

Pine plantations of various ages and pruned and thinned in different regimes: *Pinus radiata* mostly, but some other species. Also amenity plantings of *P. pinea*, *P. contorta*.

Macrocarpa plantings, mostly as coastal shelterbelt for pines, but some elsewhere.

Amenity groves and road edge plants of various spp. including *Populus deltoides* var. *virginiana* (cottonwood or aspen), false acacia, Lombardy poplar, silver poplar (spreading and fastigiate forms), grey willows, *Banksia integrifolia*, osiers, coastal tea-tree (*Leptospermum laevigatum*), sand wattle (*Acacia sophorae*).

Road edge grasses and dicot herbs: damper sites with cocksfoot, tall fescue, summer grass, fireweeds, nightshades; dry sites with marram, club sedge, boneseed, hare's tail. Pyp grass (*Ehrharta villosa*) spreading at western end (Koitiata village).

Swamps: raupo → *Schoenoplectus tabernaemontani* → *Carex secta* → *C. maorica*/marsh bedstraw - creeping bent. Also flax - toetoe → *Cop. propinqua* scrub or *C. propinqua* - *Olearia solandri* - *O. virgata* scrub.

Lake: edge of rank grasses → *Schoenoplectus tabernaemontani* → *Epilobium parviflorum* → *Ludwigia peploides* → *Potamogeton crispus* - *Elodea*

Foredunes: marram ←→ spinifex - pingao

Dunes between plantations and foredune: sand wattle → marram → flax → toetoe-jointed rush (in hollows) → lupins (on ridges), with marram, *Senecio elegans*, hare's tail.

Species List

List compiled by members of Wellington Botanical Society, during visit 6-8 February 1987; and on author's inspection of parts of the area on 5 February 1986, 15 March 1998, 11 October 1988, 27 January 1992. Additions. D. Ravine June 1990, 24 August 1990, September 1990; DoC staff (Ogle, La Cock, Rouse, Renting) 1 March 2000.

List last revised 14 Jan 2002.

- AS = Artillery (= Waimahora) Swamp
- LK = Lake Koitiata
- CD = Coastal Dunes (west of plantations)
- TH = Tunnel Hill : swamp scrub north of L. Koitiata (part private land, part 'Ernslaw 1')
- PP = Pines (among pine plantation)
- KS = Koitiata Stream
- BL = Blind Lakes (2 on north side of Fusilier Road)

- * = denotes adventive species;
- U = uncommon

	AS	LK	CD	TH	PP	KS	BL
Dicot trees and shrubs							
* <i>Acacia melanoxylon</i> ¹					*		
* <i>A. sophorae</i> ²			*		*		
* <i>Alnus glutinosa</i>	*	*			*		*
* <i>Artemisia arborescens</i>			*				
* <i>Atriplex halimus</i>			*				
* <i>Banksia integrifolia</i> ³					u		
* <i>Chamaecytisus palmensis</i>		*					
* <i>Chrysanthemoides monilifera</i>			*		*		
<i>Coprosma acerosa</i> var. <i>acerosa</i>			*				
<i>C. propinqua</i> var. <i>propinqua</i>	*			*	*		*
<i>C. rigida</i>	*			u			u(1)
<i>C. robusta</i>	*			*	*		*
<i>C. propinqua</i> x <i>C. robusta</i>	*			*	*		*
<i>Kunzea ericoides</i> agg.				u(1)			
* <i>Leptospermum laevigatum</i> ⁴					*		
<i>L. scoparium</i>	*			*	*		*
* <i>Lupinus arboreus</i>	*	*	*	*	*		*
* <i>Lycium ferocissimum</i>	*	*	*		*		
<i>Olearia solandri</i>	*			*	*		*
<i>O. virgata</i> var. <i>virgata</i>				u	u(1)		
<i>Ozothamnus leptophyllus</i> (<i>Cassinia leptophylla</i>)			*				
* <i>Populus alba</i>			*	*			
* <i>P. alba</i> cv "pyramidalis"		*		*	*		*
* <i>P. nigra</i> cv "Italica"							*
* <i>P. deltoides</i> var. <i>virginiana</i>	*	*			*		
* <i>Prunus persica</i> (peach/nectarine)					u(1)		
* <i>Robinia pseudacacia</i>			*		*		*
* <i>Rosa rubiginosa</i>	*			*			
* <i>Salix cinerea</i>	*	*		*			
* <i>S. elaeagnos</i>					*		*
* <i>S. fragilis</i>	*	*					
<i>Solanum laciniatum</i>	*				*		
* <i>Ulex europaeus</i>	*			*	*		*

Dicot Lianes

<i>Calystegia sepium</i> agg. [some with pink fls, others white]	*					*	*
<i>C. soldanella</i>		*	*		*	*	
* <i>Fallopia</i> (<i>Polygonum</i>) <i>convolvulus</i>					*		
<i>Muehlenbeckia complexa</i>	*	*	*	*	*	*	*

¹ Common among new crop of pines - maybe mix of planted and self-sown blackwoods?

² Scattered plantings on dunes "outside" the last macrocarpa plantings in 1987; abundant to locally dominant on outer dunes in March 2000, and common e.g. along gas pipeline route.

³ Planted trees, and locally common seedlings, self-establishing

⁴ Planted grove at coastal end of Fusilier Road - not self-sown plants seen here by CCO in 1987, but seedlings and saplings were locally abundant in March 2000.

	AS	LK	CD	TH	PP	KS	BL
Parsonsia capsularis				u			
P. heterophylla				u			
*Rubus fruticosus agg.				*	*		
*Senecio mikanioides			*				
Tetragonia trigyna			*				
*Vinca major			*				
Dicot Herbs							
*Apium nodiflorum	*					*	
*Achillea millefolium					*		
*Arenaria serpyllifolia					*		
*Anagallis arvensis					*		
*Bidens frondosa	*	*		*			*
*Carduus tenuiflorus(?)				*			
*Carpobrotus sp.(unidentified)			*				
Centella uniflora	*			*	*		
Centipeda sp.(unidentified)			*				
*Chenopodium album agg.					*		
*C. pumilio					*		
*Cirsium arvense	*	*		*	*		
*C. vulgare	*	*	*	*	*		*
*Conium maculatum	*				*		
*Conyza albida	*	*	*		*	*	
Cotula coronopifolia		*		*			
Epilobium billardioreanum	*						*
E. chionanthum	*						
E. insulare	*						
E. pallidiflorum	*			*			
*E. parviflorum	*	*		*		*	
Euchiton involucrata (Gnaphalium involucratum)	*						
E. sphaerica (G. sphaericum)					*		
*Foeniculum vulgare					*		
*Galium aparine					*		
*G. palustre	*	*		*			*
G. trilobum	*						
*Geranium molle					*		
Haloragis erecta			*(u)				
*Helminthotheca (Picris) echioides	*						
Hydrocotyle novae-zeelandiae	*	*					*
*Hypericum perforatum	*						*
*Hypochoeris radicata	*	*	*		*		
*Lactuca virosa(?)					*		
Lagenifera pumila	*						
*Leontodon taraxacoides	*	*	*		*		*
*Lepidium bonariense					*		
*L. pseudo-tasmanicum					*		
*Linum catharticum	*						
Lobelia anceps	*				*		

	AS	LK	CD	TH	PP	KS	BL
* <i>Lotus pedunculatus</i>	*	*		*	*	*	*
* <i>L. tenuis</i>					*		
* <i>Ludwigia palustris</i>		*					
* <i>L. peploides</i> var. <i>montevidensis</i>		*					
* <i>Lythrum hyssopifolia</i>		*					
<i>Mazus novaezeelandiae</i>					u ⁵		
* <i>Medicago lupulina</i>		*					
* <i>Melilotus indica</i>	*	*				*	
<i>Mentha cunninghamii</i>	*						
* <i>M. pulegium</i>			*				
* <i>Myosotis laxa</i> var. <i>caespitosa</i>	*	*				*	*
<i>Myriophyllum pedunculatum</i>	*				u		
<i>M. propinquum</i>		*		*			*
* <i>Oenothera stricta</i>					*		
<i>Oxalis rubens</i>					*		
* <i>Parentucellia viscosa</i>	*	*			*	*	
* <i>Plantago lanceolata</i>	*	*			*	*	*
* <i>P. major</i>		*				*	*
<i>P. raoulii</i>				*			
* <i>Polycarpon tetraphyllum</i>		*			*		
* <i>Polygonum hydropiper</i>	*					*	
<i>P. salicifolium</i>	*			*		*	*
* <i>Portulacca oleracea</i>					*		
<i>Potentilla anserinoides</i>	*	*			*		*
<i>Pratia angulata</i> agg.				*			
* <i>Prunella vulgaris</i>	*				*		
<i>Pseudognaphalium</i> sp (<i>P. luteo-album</i> agg.)					*		
<i>Ranunculus acaulis</i>			*				
<i>R. amphitrichus</i>	*	*		*			
<i>R. macropus</i>	*						
* <i>R. repens</i>	*	*					*
* <i>R. sceleratus</i>		*					*
* <i>R. trichophyllum</i>		*			u		
* <i>Rorippa nasturtium-aquaticum</i>							*
<i>R. palustris</i>	*	*					*
* <i>Rumex acetosella</i>		*					*
* <i>R. crispus</i>	*	*			*		*
<i>Selliera radicans</i>			*				
* <i>Senecio bipinnatisectus</i>		*		*	*		*
* <i>S. elegans</i>			*			*	
<i>S. glomeratus</i>	*						
<i>S. minimus</i>			*		*		
<i>S. quadridentatus</i>					*		
* <i>Silene gallica</i>					*		
* <i>Sisymbrium officinale</i>					*		
* <i>Solanum chenopodioides</i>					*		*

⁵ In damp sand flat surrounded by pines and alders, on west side of Artillery Swamp, and about 30m distant.

	AS	LK	CD	TH	PP	KS	BL
*S. nigrum		*			*		
*Sonchus oleraceus				*	*	*	
*Stellaria media					*		
*Trifolium arvense					*		
*T. dubium					*		
*T. fragiferum	*						*
*T. pratense	*						
*T. repens	*	*			*		
*Verbascum thapsus		*			*		
*Veronica anagallis-aquatica	*	*				*	*?
*Vicia sativa					*		

Monocot Tree

Cordyline australis	*	*		*	*		*
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Grasses

*Agrostis capillaris					*		
*A. stolonifera	*					*	*
*Aira caryophyllea					*		
*Alopecurus geniculatus							*
*Ammophila arenaria		*	*		*	*	*
*Anthoxanthum odoratum	*				*		
*Bromus diandrus		*			*		
*B. willdenowii		*			*		
*Cortaderia selloana					*		
C. toetoe	*	*	*	*	*	*	*
*Cynodon dactylon		*			*		
*Dactylis glomerata					*		*
*Digitaria sanguinalis					*		
*Ehrharta calycina			*				
*E. erecta					*(u)		
*E. villosa					*		
*Festuca rubra ssp. commutata				*	*		
*Glyceria declinata (?)		*					
*Holcus lanatus	*	*			*	*	*
Isachne globosa	*						
Lachnagrostis billardierei			*		*		
L. filiformis s.s.							*
*Lagurus ovatus		*	*		*	*	*
*Lolium perenne					*		
*Paspalum dilatatum		*			*		
*P. distichum		*				*	
*Phleum pratense					*		
*Polypogon monspeliensis						*	
*Schedonorus phoenix (=Festuca arundinacea)	*	*	*	*	*	*	*
*Setaria gracilis					*		

	AS	LK	CD	TH	PP	KS	BL
Spinifex sericeus			*				
*Sporobolus africanus					*		
*Vulpia bromoides					*		
Rushes							
Apodasmia (Leptocarpus) similis	*	*	*	*	*		*
*Juncus articulatus	*	*		*			*
*J. bufonius			*				
J. caespiticius	*						
*J. effusus				*			
J. maritimus var. australiensis					u ⁶		
J. pallidus					*		*
*J. sp.				u			
Sedges							
Baumea juncea	*			*	*		
B. rubiginosa	*			*			
Bolboschoenus fluviatilis	*	*				*	?
*Carex demissa	*						
C. flagellifera				u			
*C. flacca	*			u			
C. lessoniana	u			*			*
C. litorosa							*
C. maorica	*			*			*
C. pumila			*		u	*	*
C. secta var. secta	*			*			u
C. virgata	*			*			*
Cyperus ustulatus	*	*		*		*	*
Desmoschoenus spiralis			*				
Eleocharis acuta	*	*		*			*
E. gracilis	*						
Isolepis cernua		*					
I. nodosa	*	*	*	*	*	*	*
Schoenoplectus pungens	*	*				*	*
S. tabernaemontani	*	*		*		*	*
Schoenus maschalinus				*			
S. nitens s.s.	*				u		
Orchids							
Caladenia carnea					*		
Chiloglottis cornuta					*		
Corybas sp. (cf. C. rivularis)	*						
Microtis unifolia					*		

⁶ On west side of Artillery Swamp, in damp sand surrounded by pines and alders.

	AS	LK	CD	TH	PP	KS	BL
<i>Thelymitra longifolia</i> agg.					*		

Other Monocots

* <i>Elodea canadensis</i>		*					*
<i>Lemna</i> sp. (<i>L. minor</i> auct)	*	*		*		*	*
<i>Phormium tenax</i>	*		*	*	*	*	*
<i>Potamogeton cheesemanii</i>		*		*			*
* <i>P. crispus</i>		*					
<i>P. pectinatus</i>					u ⁷		
<i>Sparganium subglobosum</i>	*						
<i>Triglochin striatum</i>	*						
<i>Typha orientalis</i>	*	*		*	*	*	*
<i>Wolffia australiana</i>	*						

Gymnosperms

* <i>Cupressus macrocarpa</i>			*		*	*	
<i>Dacrycarpus dacrydioides</i>	u			u			
* <i>Pinus radiata</i>	u	*			u		

Ferns

<i>Adiantum cunninghamii</i>							*
<i>Asplenium flabellifolium</i>					*		
<i>A. flaccidum</i>					*		
<i>A. oblongifolium</i>					*		
<i>A. polyodon</i>					*		
<i>Azolla filiculoides</i>	*	*				*	
<i>Blechnum fluviatile</i>				*			
<i>B. minus</i> (of NZ authors)	*			*			*
<i>Cyathea medullaris</i>				*			
<i>Dicksonia fibrosa</i>				*			
<i>Histiopteris incisa</i>	*						*
<i>Hypolepis ambigua</i>	*			*	*		*
<i>Microsorium pustulatum</i>				*		*	
<i>Paesia scaberula</i>					*		
<i>Pneumatopteris pennigera</i>				*			
<i>Pteris tremula</i>				*			
<i>Pteridium esculentum</i>	*		*	*	*		*
<i>Pyrrhosia eleagnifolia</i>				*			

In Ad In Ad In Ad In Ad In Ad In Ad In Ad

⁷ In fire fighting water holes among pines at Moanaroa and near Koitiata village

AS	LK	CD	TH	PP	KS	BL
56 37	21 51	20 23	45 22	38 76	15 21	44 35

Total flora of Santoft Forest and adjoining lands (excluding non-pine areas at Koitiata [Turakina Beach])

Indigenous species =	108
Adventive species =	127
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TOTAL	235