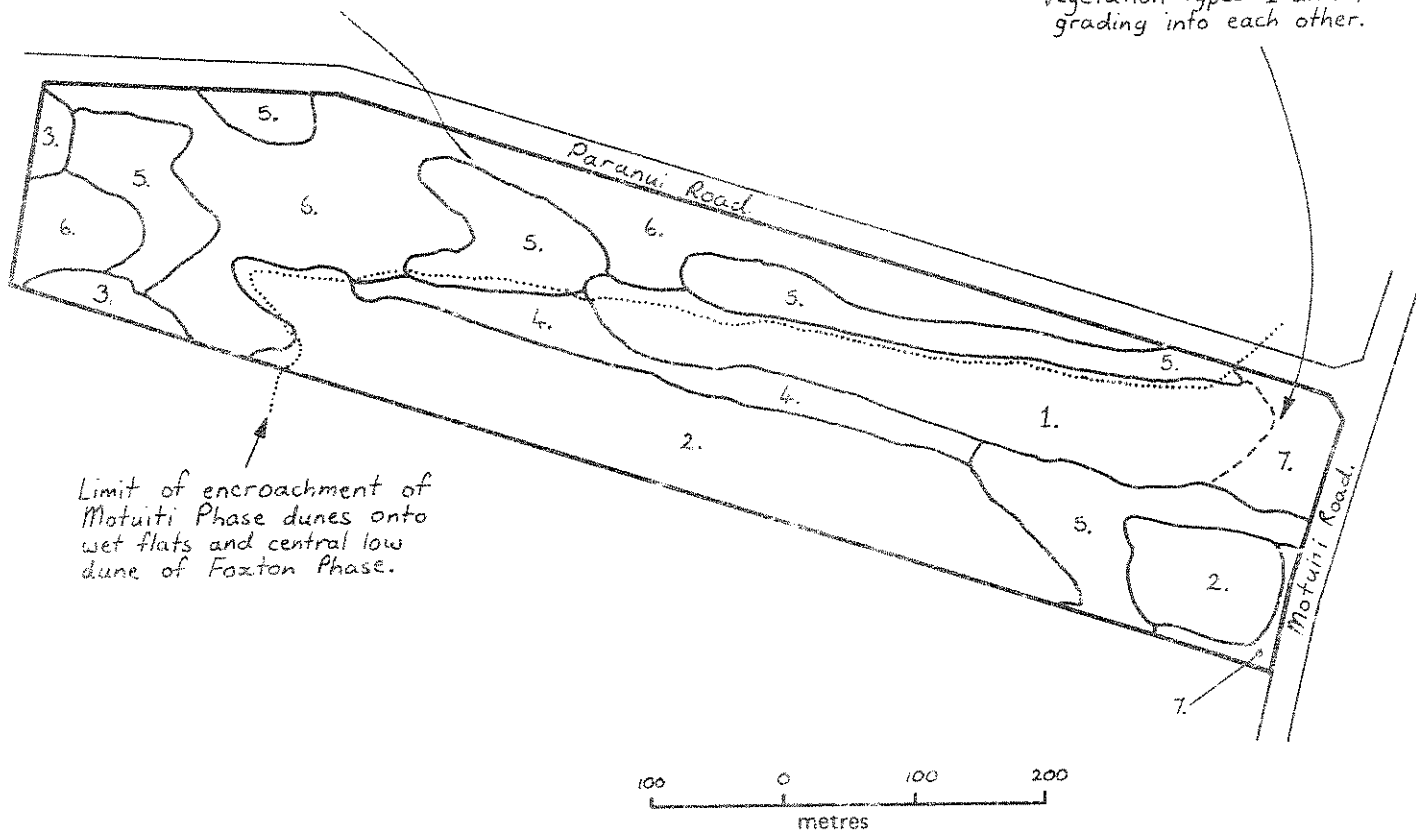


1. Pigeonwood - broadleaved spp. forest.
2. Pukatea / tawa - mahoe forest.
3. Kanuka scrub.
4. Mixed shrubs / bracken grassland.
5. Bracken fernland.
6. Lupin - grasses.
7. Tall fescue sedges.



Vegetation types 1 and 7
grading into each other.



Limit of encroachment of
Motuiri Phase dunes onto
wet flats and central low
dune of Foxton Phase.

Himatangi Bush Scientific Reserve

Area: 18.76 ha



HIMATANGI BUSH SCIENTIFIC RESERVE							GRID REF N148 947 150	
for: scenery	bush	scrub tussock etc	wetland	plants	animals	geology/soil	history/prehistory	notes/updates
LOCATION At junction of Paranui Road and Motuiti Road, 10 km NE Foxton.							AREA ha \times 10 ³ 18.77	
ACCESS Along Paranui Road off SH 1 or from Motuiti Road.							L.D. No.	
OUTLINE & TOPO Small area of semi-swamp and dune forest on Manawatu sand dune country.							STATUS Scientific	
SURROUNDINGS Pastureland.							RES sub-Cttee	
GEOLOGY Flats in the eastern portion of the reserve and a central low dune derived from coastal sands of the Foxton dune-building phase (3000 yrs bp). Western portion of reserve derived from sands of Motuiti dune-building phase (500 years bp).							CONTROL CCL	
SPM Dune sands.							GAZETTED 1976	
SOIL Yellow-brown sands.							RESERVED 1971	
DRAINAGE Good on dunes, poor on flats.							HISTORY Kahikatea milled in 1930s. Fenced in 1972.	
							AIR PHOTO date	
							nearby town 10 km Foxton	
							nearest reserve 2 km Round Bush	
							public road 0 km	
							sea (km) 10	
							ALTITUDE m \times 20	
							ASPECT Dunes run NW-SE Exposed.	
							RAIN mm \times 900 (approx)	
							NAT FERTILITY Low	

RES		NOT		MAIN HABITATS and FEATURES	% area	area ha	native		ex	regen	NAT	trend	exotics			
LD	NZ	LD	NZ				1 ^o	2 ^o						ind		
✓	✓	✓	✓	1. Pigeonwood-(kaikomako-rewarewa-tawa) forest on dune (Motuiti Phase).	6.4	1.20	✓	✓			M	M	I	L		
✓	✓	✓	✓	2. Pukatea/tawa-mahoe forest on wet flat (Foxton Phase).	37.4	7.02	✓				L	M	I	M		
✓	✓	✓	✓	3. Kanuka scrub on dune (Motuiti Phase).	2.6	0.48	?	?			M	M	I	M		
✓	✓	✓	✓	4. Mixed shrubs/bracken-grassland on dune. (Foxton Phase).	6.3	1.18	✓	✓			H	L	I	H		
✓	✓	✓	✓	5. Bracken fernland on dunes (Foxton and Motuiti Phases).	17.7	3.32	✓	✓			L	L	S	M		
✓	✓	✓	✓	6. Lupin-grassland on dry flat (Motuiti Phase).	25.0	4.69					✓	M	L	I	H	
✓	✓	✓	✓	7. Tall fescue - sedgeland on wet flat (Foxton Phase).	4.7	0.88					✓	✓	M	L	I	H
				1. Mixed broadleaved forest with pigeonwood, kaikomako, rewarewa and tawa contributing to the canopy cover along with one or two trees of white maire, lancewood, and red matipo present. Canopy height is uneven, reaching up to 15m at the bottom of the dune and grading into a low shrub forest on the crest of the dune with kohuhu, ngaio and mahoe in the canopy. There is an open understorey of kawakawa, mahoe and Coprosma species up to 2m. Ground cover is sparse with a few clumps of Pellaea rotundifolia, shieldfern and the grass Oplismenus.												
				2. Tall misshapen pukatea (up to 30m) rise above an uneven canopy (up to 15m) of tawa and mahoe on the wet flats. Kiekie and epiphytes festoon the pukatea trees and supplejack is common. There is an open understorey of kawakawa, hangehange, mahoe and Coprosma areolata in places. The ground floor vegetation is still recovering from years of cattle grazing and is dominated in the drier places by Oplismenus and a number of introduced herbs and in the wetter places by Carex species. There are more open areas of semi-swamp forest at the eastern ends of the forests where scattered young kahikatea occur with cabbage trees, Coprosma areolata and kaikomaka.												
				3. Clumps of kanuka up to 6m occur on the western dunes of the reserve and also are present on the northern dune. Associated species with the kanuka are mahoe, kohuhu, lancewood and five finger.												
				4. The central low dune running between the two areas of semi-swamp forest is dominated by bracken and exotic grasses with a number of emergent shrubs including tree lupin, gorse, lacebark, kohuhu, mahoe, Melicope simplex and kaikomako.												
				6. Exotic grasses, mainly Yorkshire fog, cocksfoot, tall fescue and marram occur on the dunes and the dry flats along with bracken and lupin and scattered plants of mahoe, five finger, Coprosma rhomboides, and tangles of pohuehue and Clematis species.												
				7. Tall fescue, Carex secta and Cyperus ustulatus dominate the wet flats of the eastern boundary of the reserve.												
					100.1	18.77										

CONDITION The reserve is now showing signs of recovery after a history of abuse from milling and cattle grazing prior to reservation.

FENCING Good, but one cattle beast was in reserve at time of visit.

PRIORITY Fences must be maintained.

RATING 0-10

SCIENTIFIC ...7

SCENIC ...9

RECREATION ...0

CONCLUSIONS and RECOMMENDATIONS

A very important reserve preserving one of the last remnants of sand-country forest in the Manawatu. One of the few forest areas in the world where different soil surfaces of known age are reserved.

The forest was probably not greatly disturbed until the early 1930's when large kahikatea were removed and the tall pukatea became exposed to the wind. Cattle had access to the reserve until the 1970's and over a forty year period the condition of the forest deteriorated; clearings developed in the forest, trees around the periphery died and much of the understorey and ground flora was destroyed. Regeneration is now occurring and is most marked on the central dune where mahoe shrubs are appearing through the bracken and inside the forest where broadleaved shrubs are beginning to establish in the understorey.

The history and botanical features of the reserve were documented in 1979 by Esler, Greenwood and Atkinson. They also established permanent plots in the reserve and undertook plantings of shrub species on the bracken and grass covered dunes and flats in the northern part of the reserve.

¹ NATURALNESS

² TREND: D deteriorating; S steady; I improving

TREES AND SHRUBS

Native

Alectryon excelsus
Aristotelia serrata
Beilschmiedia tawa
Carmichaelia arborea
Carpodetus serratus
Coprosma areolata
C. crassifolia
C. grandifolia
C. propinqua
C. rhamnoides
C. rigida
C. rotundifolia
C. propinqua X C. robusta
Cordyline australis
Corynocarpus laevigatus
Dodonaea viscosa
Elaeocarpus dentatus
E. hookerianus
Geniostoma rupestre var.

Griselinia lucida
Hebe stricta var. stricta
Hedycarya arborea
Hoheria populnea var. lanceolata
Knightia excelsa
Laurelia novae-zelandiae
Leptospermum ericoides
L. scoparium
Leucopogon fasciculatus
Lophomyrtus bullata
L. obcordata
Macropiper excelsum
Melicope simplex
Melicytus micranthus
M. ramiflorus
Mida salicifolia
Myoporum laetum
Myrsine australis
Nestegis lanceolata
Olearia solandri

Olearia virgata
Paratrophis microphylla
Pennantia corymbosa
Pittosporum cornifolium
P. eugenioides
P. tenuifolium
Podocarpus dacrydioides (Dacrycarpus = dacrydioides)
P. ferrugineus (=Prumnopitys taxifolia)
P. totara
Pseudopanax arboreus
P. crassifolius
Rhopalostylis sapida
Schefflera digitata
Solanum aviculare
Sophora microphylla
Syzygium maire
Urtica ferox

Adventive

Chamaecytisus palmensis

Ulex europaeus

Lupinus arboreus

CLIMBERS, LIANES ETC.

Native

Clematis foetida
C. forsteri
C. paniculata
Freycinetia baueriana ssp. banksii
Fuchsia perscandens
Metrosideros colensoi

Metrosideros diffusa
M. perforata
Parsonsia capsularis var. capsularis
P. heterophylla
Passiflora tetrandra

Ripogonum scandens
Rubus australis
R. cissoides
R. schmidelioides
R. squarrosus

GRASSES, RUSHES AND LIKE PLANTS

Native

Agropyron scabrum
Carex dipsacea
C. dissita
C. geminata
C. secta
C. solandri
C. testacea
C. virgata

Cyperus ustulatus
Echinopogon ovatus
Gahnia xanthocarpa
Juncus australis
J. pallidus
J. sarophorus
Luzula picta

Microlaena avenacea
M. stipoides
Oplismenus imbecillus
Rytidosperma racemosa
Scirpus inundatus
S. nodosus
Uncinia uncinata

Adventive

Agrostis stolonifera
A. tenuis
Ammophila arenaria
Anthoxanthum odoratum

Bromus catharticus
B. diandrus
Cyperus eragrostis

Dactylis glomerata
Festuca arundinacea
Holcus lanatus

HERBS

Native

Acaena novae-zelandiae
Acianthus fornicatus var. sinclairii
Callitriche muelleri
Cardamine debilis
Chiloglottis cornuta
Collospermum hastatum
Corybas trilobus
Earina autumnalis
E. mucronata
Gastrodia cunninghamii

Geranium potentilloides
Gnaphalium gymnocephalum
Haloragis erecta
Hydrocotyle moschata
H. novae-zelandiae
Microtis unifolia
Parietaria debilis
Pratia angulata
Pterostylis banksii

Ranunculus hirtus
R. rivularis
Senecio biserratus
S. hispidulus
S. minimus
Solanum nodiflorum
Stellaria parviflora
Urtica incisa
Wahlenbergia gracilis

Adventive

Achillea millefolium
Arctium minus
Cerastium fontanum
Cirsium arvense
C. vulgare
Lactuca serriola
Lotus pedunculatus

Myosotis caespitosa
Plantago lanceolata
Ranunculus repens
Conyza sp.
Fumaria muralis
Galium aparine
G. palustre

Hypochaeris radicata
Rumex acetosella
Senecio bipinnatisectus
Taraxacum officinale
Trifolium repens
Vicia hirsuta

FERNS AND ALLIES

Native

Alsophila tricolor (=Cyathea dealbata)
Asplenium bulbiferum
A. flabellifolium
A. flaccidum
A. oblongifolium
A. polyodon
Blechnum filiforme
B. sp. (capense agg.)
Ctenitis decomposita
Dicksonia squarrosa

Diplazium australe
Histiopteris incisa
Hymenophyllum rarum
Hypolepis tenuifolia
Lastreopsis glabella
L. hispida
L. microsora ssp. pentangularis
Lycopodium varium
Paesia scaberula
Pellaea rotundifolia

Phymatosorus diversifolius
P. scandens
Pneumatopteris pennigera
Polystichum richardii
Pteridium esculentum
Pteris macilenta
P. tremula
Pyrrosia serpens
Sphaeropteris medullaris

BIRDS

blackbird
chaffinch
greywarbler

harrier
magpie

shining cuckoo
song thrush

