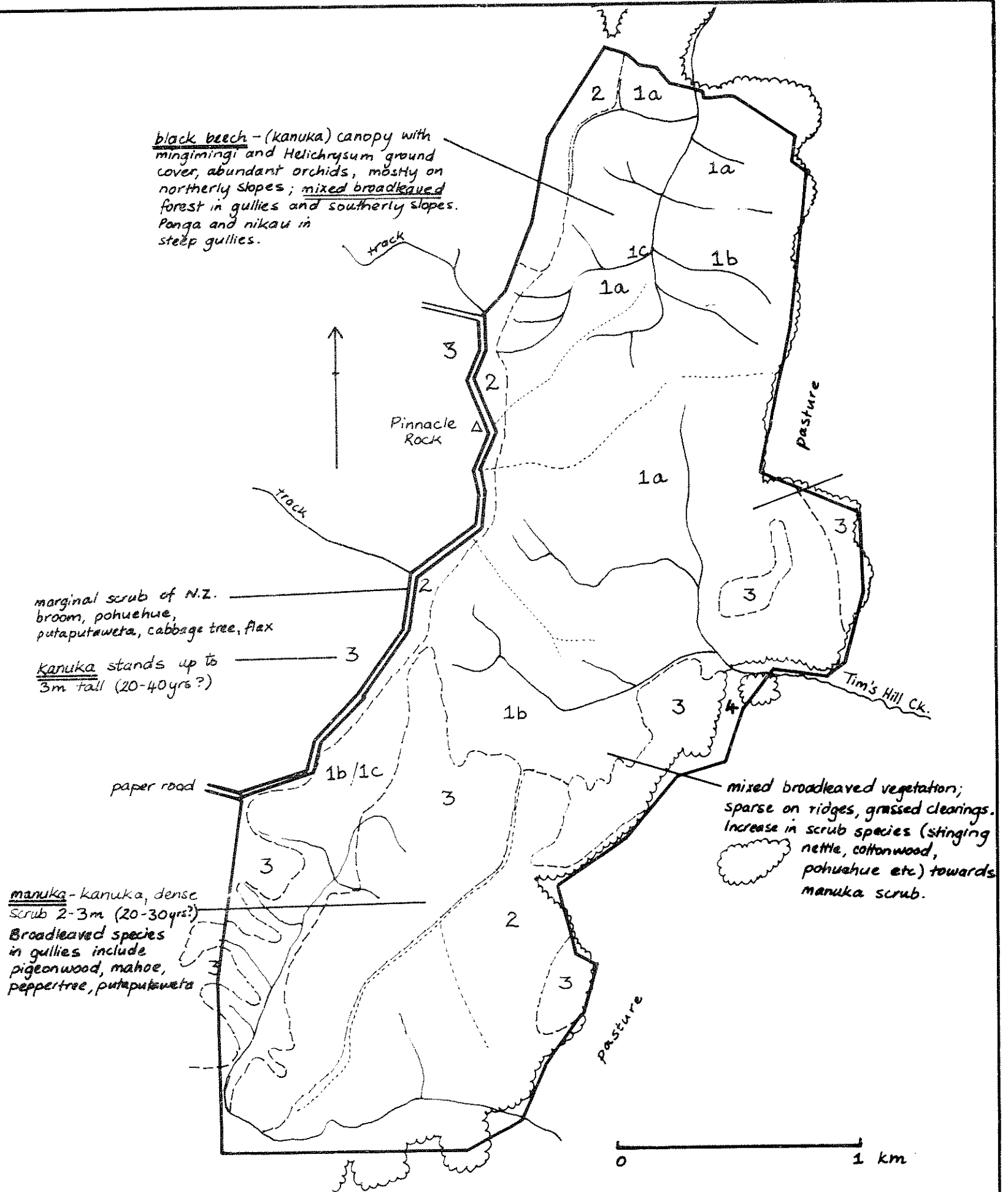


black beech - (kanuka) canopy with mingimingi and Helichrysum ground cover, abundant orchids, mostly on northerly slopes; mixed broadleaved forest in gullies and southerly slopes. Ponga and nikau in steep gullies.



marginal scrub of N.Z.
broom, pohuehue,
putaputaweta, cabbage tree, flax

Kanuka stands up to
3m tall (20-40 yrs?)

mixed broadleaved vegetation;
sparse on ridges, grassed clearings.
Increase in scrub species (stinging
nettle, cottonwood,
pohuahue etc) towards
manuka scrub.

manuka-kanuka, dense
scrub 2-3m (20-30 yrs?)
Broadleaved species
in gullies include
pigeonwood, mahoe,
peppertree, putaputaweta

Tora Bush (proposed S.R.)

Area: 548.6852

TORA BUSH (PROPOSED) SCENIC RESERVE						GRID REF 528 284635-286640										
for: scenery <input checked="" type="checkbox"/> bush <input checked="" type="checkbox"/> s. rub. <input checked="" type="checkbox"/> etc <input checked="" type="checkbox"/> wetland <input type="checkbox"/> plants <input type="checkbox"/> animals <input type="checkbox"/> geology/soil <input type="checkbox"/> history <input type="checkbox"/> prehistory <input type="checkbox"/> water supply <input type="checkbox"/>						AREA ha 548.6852 L.D. No. Sections 245, 258 Awhea District, Lot 6 DP STATUS Crown Land - proposed Scenic Reserve RES sub-Cttee										
LOCATION Midway between White Rock Road and Tora Road, 38 km by road SE of Martinborough, near the coast east of Cape Palliser, Southern Wairarapa.						CONTROL CCL GAZETTED Not gazetted RESERVED Not reserved Area retained by Crown when Tora Farm Settlement was disposed of. Reservation for scenic or conservation purposes unresolved since 1958.										
ACCESS Pedestrian and ORV access only. Approach from Tora Road is up Tim's Hill Creek on Moana Rua property. Approach from White Rock Rd is firebreaks on Manahau Station Property.						AIR PHOTO SN 5497 P19, 20/Q19 date 16.10.79										
OUTLINE & TOPO The north-south orientated reserve has an east to south-east aspect. The higher, western ridge runs north-south, and is moderately steep, reaching 404m. Three sub-catchments drain into the Awhea River in the east. The northern half is forested by relatively unmodified black beech and mixed broadleaved species. The southern half is mostly regenerating scrubland with broadleaved gully vegetation.						nearby town 30 km Martinborough nearest reserve 20 km Putangirua Pinnacles S.R. public road White Rock Road, Tora Road sea (km) 3 ALTITUDE m/ft 100-400										
SURROUNDINGS Grazed pasture to the north, east and south. An area of manuka scrubland, slightly larger than the reserve, lies to the west. Steep to moderately steep hill country to the west; smoother, less dissected limestone topography to the east. Coastline 3 km to south-east.						ASPECT Easterly to south-easterly										
GEOLOGY Greywacke and crushed argillaceous material on the steeper western ridges; limestone on the eastern boundary. The NE part of the reserve flanks the main ridge leading up to Limestone No. 3.						RAIN mm/in 50 (approx) NAT FERTILITY Moderate to low fertility										
SPM Weathered rock in situ.																
SOIL Central yellow-brown earths, related steepland soils and intergrades between central yellow-grey and yellow-brown earths. Maungapakeha hill soils; Whakaroro hill soils.																
DRAINAGE Very good.																
MAIN HABITATS and FEATURES																
RES	NOT					%	area	native	ex	regen	NAT	trend	exotics			
LD	RZ	LD	RZ					1 ^o	2 ^o	ind						
✓	✓	✓	✓	1. Black beech-kanuka/ <i>Helichrysum aggregatum</i> ; some scattered podocarps at lower levels (miro, rimu, kihikatea).				60.5	332.0	✓		M	H	S	L	
✓	✓	✓	✓	1b. Mixed broadleaved forest; pigeonwood, putaputaweta, rewarewa, lancewood, karaka. Stinging nettle is prolific in places.						✓		H	H	S	L	
✓	✓	✓	✓	1c. Gully vegetation of mixed broadleaved species (mahoe, pigeonwood, peppertree) with ponga and nikau palm on steep, sheltered faces.						✓		L	M	S	L	
✓	✓	✓	✓	2. Marginal scrub over grass. Predominantly putaputaweta, ranqiora, manuka, mingimingi, tauhinu, <i>Helichrysum aggregatum</i> and cabbage tree. NZ broom and flax are common along the exposed ridgetop fence-line.				18.8	102.9	✓	✓	H	M	I	L	
✓	✓	✓	✓	3. Manuka - kanuka scrub, with a ground cover of mingimingi and <i>Helichrysum aggregatum</i> . This is secondary growth following clearing and appears to be around 20 years old inside the reserve. The western hillslopes flanking this higher ridge are covered with taller manuka-kanuka scrub.				19.5	106.9	✓	✓	H	M	I	L	
✓	✓	✓	✓	4. Grassland (exotic pasture species).				1.2	6.8			✓	M	M	S	H
						100	548.6									
CONDITION Good condition; good regeneration and few exotics. Stock damage restricted to marginal bush and minimal deer and possum damage. Birdlife is abundant.																
FENCING See notes in Conclusions and Recommendations.																
PRIORITY High priority pending scenic reserve status.																
RATING 0-10																
SCIENTIFIC 5... Valuable sized remnant of characteristic Southern Wairarapa hill country black beech forest.																
SCENIC 6... Limited access but attractive externally and internally. No tracks.																
RECREATION 4... Good hunting and possuming but limited permit availability.																
CONCLUSIONS and RECOMMENDATIONS The proposed reserve is one of the last remaining remnants of native bush in SE Wairarapa, east of Aorangi Range. Its black beech forest and regenerating scrubland make this reserve a valuable asset for future protection of the Awhea River subcatchments, recreational use (hunting) and for regeneration of a diminishing forest cover in Southern Wairarapa. The reserve is very attractive scenically, with good views of the coast and surrounding hill country from Pinnacle Rock and the western boundary, and the beech forest is in good condition. The subcatchments of the Awhea River drain off a steep ridge with a high point of 404m. The unmodified vegetation is black beech forest with scattered kanuka and podocarps on north-facing slopes and lower slopes. Open areas on ridges cleared by windthrow of beech trees show good regeneration of rewarewa and black beech. Broadleaved species such as pigeonwood, lancewood and rewarewa predominate on south facing slopes and in gullies, with ponga and nikau palms dominant in deepest gullies. The reserve is bordered by scrub consisting of putaputaweta, mahoe, cottonwood, <i>Helichrysum aggregatum</i> and cabbage trees. Dense manuka/kanuka/mingimingi scrub dominates the southern end of the reserve which is modified by fire and stocking. The northern subcatchment is the least modified area, with only a narrow zone of scrub along the north-west boundary.																
(Continued..)																
5 hours Cold, wet conditions IG 1983																

1 NATURALNESS

2 TREND: D deteriorating; S steady; I improving

CONCLUSIONS AND RECOMMENDATIONS (Continued)

Elsewhere black beech and broadleaved forest is in good condition. The middle easterly-draining subcatchment is the most accessible part of the reserve, with access up Tim's Hill Creek. The true left tributary is the least modified, with good stands of black beech and scattered miro and rimu. Rewarewa, hinau, karaka and kanuka become interspersed on upper slopes. A grove of titoki is seen near Tim's Hill Creek. The southern subcatchment consists of dense regenerative scrubland; manuka and kanuka on ridges, in particular the north-west facing slopes, and broadleaved species such as mahoe, putaputaweta, peppertree and ponga in the gullies. Spaniard is found in grassy margins and clearings.

The predominant vegetation of the Haurangi forest park 9 km to the west, is black beech. Other than this, the nearest remnants of black beech forest are 10 km away on private land in the headwaters of the Oterei River. The only other area in SE Wairarapa is in a State Forest south of Whareama. 548 ha is a significant size for a reserve; approximately half this area is largely unmodified forest which eventually will succeed into the southern half. Birdlife is abundant.

It appears that the scrubland on the bordering Manahau Station property is slowly being redeveloped. A new fenceline along the NW boundary recognises the need for replacement or construction of fences around the entire perimeter. The fenceline is dilapidated around the west and south and south-east boundaries, and non-existent along the E boundary with R.L. Hunter's property. Top priority must be given to the eastern boundary which borders on stocked pasture, as there is evidence of cattle within the reserve. Hunting appears to be keeping deer and pig numbers to a manageable level.

There were no noxious weeds or problem exotics noticed in the reserve. Access from the west is via Manahau tracks which is proving unsatisfactory for the owners. Proposed new pedestrian access along the boundary between Manahau and White Rock Stations in exchange for closing paper roads would solve this problem. There are picnic sites along stream banks on the eastern side, but tracks through the reserve are unnecessary at present. With new access approved, some signposting is required.

REFERENCES

% area	SUMMARY	HABITATS													ORGANISMS		OBSERVED												
		WATER / SHORE			veg			substrate			pollution		access		INFER		initials												
		large	small	several	fill/out/stable	overhang	emergent	herbac	cliff	rock	stony	s+shingle	mud	organic	rubbish	eutrophic	foot	boat	car	a - adjoins reserve	N	S	M	N	L	M	H	initials	
60.5	tall conifer ¹ forest/trees conifer ² forest/trees beech forest/trees BL ¹ forest/trees																												
38.3	scrub/shrubs <6m tall tussocks/grassland short tussocks/grassland grassland/grasses sedge/land/sedges rushland/rushes/raupo herbland/herbs "tussock" herbland ⁴ fernland/ferns "moss" land bracken																												
1.2	exotic grassland ⁵ exotic herbland/woodland exotic scrub/shrubs exotic forest/trees introduced "native" cover																												
	bog/swamp/pakihi marsh sw/fw mudflat sw/fw bluff/rocks bluffs/rocks in bush waterfall cave/gorge gravel habitat/scree dune/sand limestone ultrabasics geological site																												
	breeding ground rare/interesting animals rare/interesting plants																												
	historic site historic building prehistoric site camp/midden/pits terraces/earthworks burial/tepu																												
100																													

¹ tall conifer: kahikatea, kauri, matai, miro, rimu, totara ² remaining 11 tree-sized spp ³ broadleaved ⁴ e.g. flax ⁵ incl. rough grassland, pasture etc

NATIVE SPECIES

Trees and shrubs

Aristotelia serrata
 Beilschmiedia tawa
 Brachyglottis repanda
 Carmichaelia arborea var.
 Carpodetus serratus
 Cassinia leptophylla
 Coprosma grandifolia
 C. rhamnoides
 C. robusta
 Cordyline australis
 C. banksii
 Coriaria arborea
 Corynocarpus laevigatus
 Cyathodes juniperina
 Dacrydium cupressinum
 Elaeocarpus dentatus
 Griselinia lucida

Hebe stricta var. atkinsonii
 H. sp. (or hybrid?)
 Hedycarya arborea
 Helichrysum aggregatum
 Hoheria populnea var. lanceolata
 Knightia excelsa
 Leptospermum ericoides
 L. scoparium
 Leucopogon (Cyathodes) fasciculatus
 Macropiper excelsum
 Melicytus micranthus
 M. ramiflorus
 Muehlenbeckia complexa
 Myoporum laetum
 Myrsine australis
 Nestegis cunninghamii
 N. montana

Nothofagus solandri var. solandri
 Olearia paniculata
 O. rani
 Pennantia corymbosa
 Pittosporum eugenioides
 Podocarpus dacrydioides
 P. ferrugineus
 Pomaderris ericifolia
 Pseudopanax arboreus
 P. crassifolius
 Rhopalostylis sapida
 Schefflera digitata
 Sophora microphylla
 Urtica ferox
 Weinmannia racemosa

Climbers and lianes, etc.

Clematis sp. (C. forsteri agg.)
 Metrosideros perforata

Muehlenbeckia australis
 Parsonsia sp. (P. capsularis?)

Ripogonum scandens
 Rubus cissoides

Grasses, rushes and like plants

Carex forsteri
 C. solandri
 Echinopogon ovatus
 Gahnia pauciflora

Luzula picta
 Microlaena avenacea
 M. stipoides
 Poa anceps

Rytidosperma racemosum
 R. sp.
 Uncinia scabra
 U. uncinata

Herbs

Acaena anserinifolia
 Aciphylla colensoi
 Astelia fragrans
 Caladenia catenata
 Cardamine sp. (C. debilis agg.)
 Craspedia sp.
 Dendrobium cunninghamii
 Dianella nigra
 Dichondra repens
 Earina mucronata
 Galium propinquum
 Gnaphalium audax

Gnaphalium gymnocephalum
 G. sphaericum
 Helichrysum filicaule
 Hydrocotyle americana
 H. moschata
 Lagenifera pumila
 L. strangulata
 Libertia ixioides
 Microtis unifolia
 Oxalis exilis
 Pelargonium inodorum
 Phormium cookianum

Pratia angulata
 Pterostylis banksii
 Ranunculus hirtus
 Senecio minimus
 Stellaria parviflora
 Thelymitra longifolia
 Urtica incisa
 Vittadinia australis
 Wahlenbergia colensoi
 W. gracilis
 W. marginata

Ferns

Asplenium bulbiferum
 A. bulbiferum subsp. gracillimum
 A. colensoi
 A. flabellifolium
 A. flaccidum
 A. hookerianum
 A. oblongifolium
 A. polyodon
 A. colensoi X A. hookerianum
 Blechnum chambersii
 B. discolor
 B. filiforme
 B. fluviatile
 B. sp. (Lomaria latifolia)

Botrychium australe
 Cyathea dealbata
 C. medullaris
 Grammitis billardieri
 Histiopteris incisa
 Hymenophyllum demissum
 H. flabellatum
 H. sanguinolentum
 Hypolepis sp. (H. rufobarbata?)
 H. sp. (H. tenuifolia)
 Lastreopsis glabella
 L. novae-zelandiae

Leptopteris hymenophylloides
 Lycopodium volubile
 Paesia scaberula
 Pellaea rotundifolia
 Phymatosorus diversifolius
 Pneumatopteris pennigera
 Polystichum richardii
 Pteridium esculentum
 Pteris pendula (=P. macilenta)
 Pyrrosia serpens
 Tmespteris tannensis
 Trichomanes venosum

BIRDS

Native

bellbird
 fantail
 greywarbler
 harrier

long-tailed cuckoo
 plover
 rifleman
 shining cuckoo

silveryeye
 tui
 whitehead
 wood pigeon

Introduced

blackbird
 Californian quail
 chaffinch

hedgesparrow
 magpie
 redpoll

songthrush
 yellowhammer

