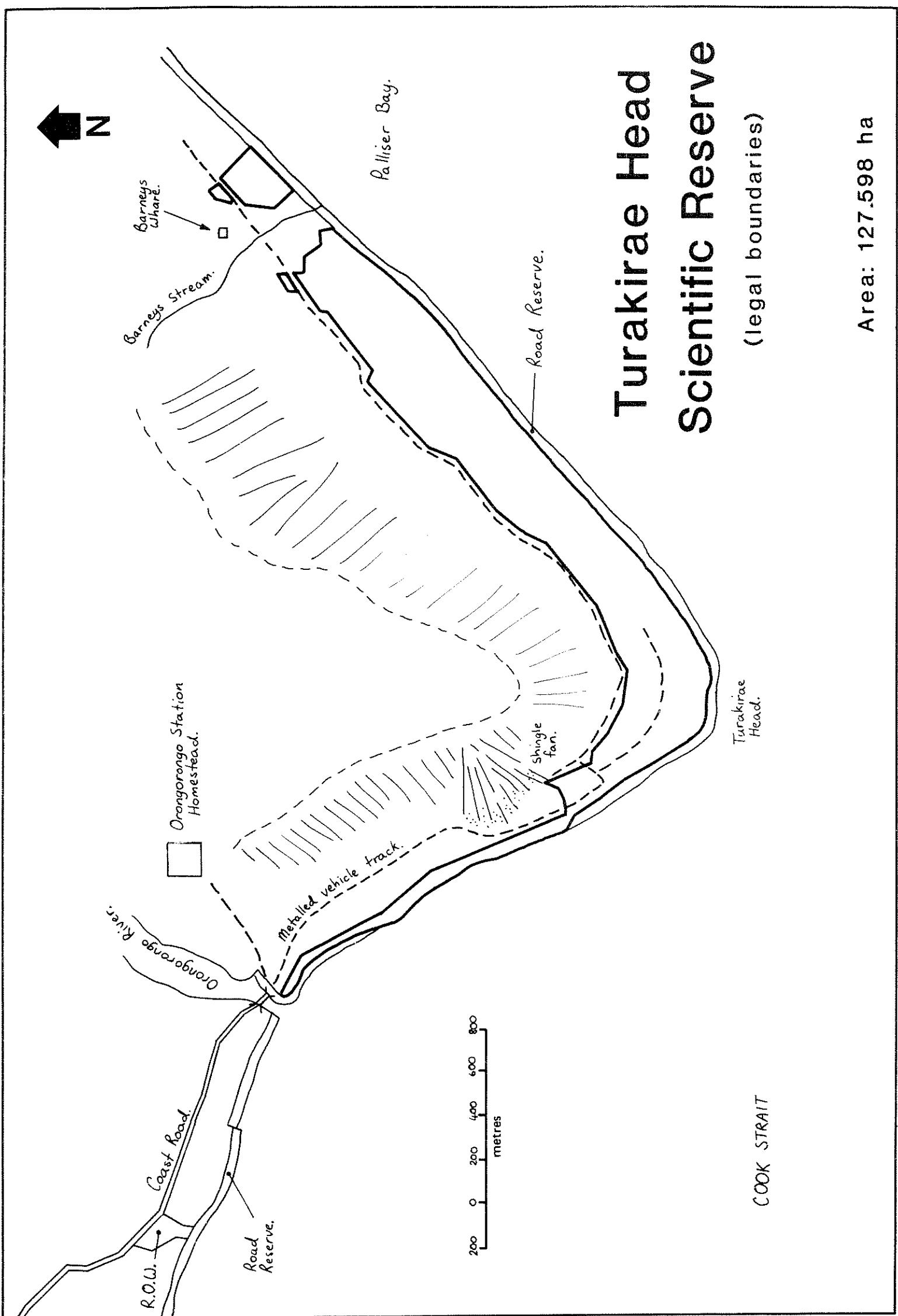


Turakirae Head Scientific Reserve

(legal boundaries)

Area: 127.598 ha



| TURAKIRAE HEAD SCIENTIFIC RESERVE <i>for:</i> <input checked="" type="checkbox"/> bush <input checked="" type="checkbox"/> scrub/tussock etc <input checked="" type="checkbox"/> wetland <input checked="" type="checkbox"/> plants <input checked="" type="checkbox"/> animals <input checked="" type="checkbox"/> geology <input checked="" type="checkbox"/> history/prehistory <input checked="" type="checkbox"/> water supply | | | | | | | | | | GRID REF R 28 689748 - 730739 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------|-----------|-------------------|---------------|-----------|--------------|------------|--------------|-----------------|---|--|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|------------|------------|-----------|-------------------|---------------|-----------|--------------|------------|--------------|-----------------|---|---|----|---|---|---|---|-----|-----|--|---|---|----|-----|-----|---|---|-----|-----|--|---|---|----|-----|------|---|---|-----|-----|--|---|---|----|-----|-----|---|---|-----|-----|--|---|---|----|-----|-----|---|---|-----|-----|--|---|---|----|-----|-----|---|---|-----|-----|--|---|---|----|-----|-----|---|---|-----|-----|--|---|---|----|------|------|---|---|-----|-----|--|---|---|----|-----|-----|---|---|-----|-----|--|---|---|-----|---|---|---|---|-----|-----|--|---|---|------|-----|-----|---|---|-----|-----|--|---|---|-----|---|---|---|---|-----|-----|--|---|---|-----|---|---|---|---|-----|-----|--|---|---|-----|-----|-----|---|---|-----|-----|--|---|---|------|-----|-----|---|---|-----|-----|--|---|---|-----|-----|------|---|---|-----|-----|--|---|---|-----|------|------|---|---|-----|-----|--|---|---|-----|-----|-----|---|---|-----|-----|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| LOCATION Reserve extends from Orongorongo river mouth 6 km around the headland to north of Barney's stream, 17 km south-east of Wellington. ACCESS Along the Coast Road, south from Wainuiomata and across private road by foot. | | | | | | | | | | AREA ha <input checked="" type="checkbox"/> 127.5980 L.D. No. 160 STATUS Scientific RES sub-Ctee CONTROL CCL GAZETTED 1982/2169 RESERVED Land acquired from Orongorongo Station to protect a series of coastal terraces uplifted during earthquakes in last 6000 years | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SURROUNDINGS Cook Strait to the south, Palliser Bay to the east. Vehicle track at base of Rimutaka Range forms landward boundary of reserve. Steep hillsides to the north are farmed as part of the Orongorongo Station. | | | | | | | | | | AIR PHOTO SN 5497 F/20, F/21 date 1980 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GEOLGY Well indurated sandstone and argillites of Triassic age with small local areas of volcanic and mixed volcanic and sedimentary rocks. | | | | | | | | | | nearby town 18..km Wainuiomata nearest reserve 17..km Wainuiomata Scenic public road 0.8 km sea (km) 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPM Alluvium, colluvium, beach rocks and peats. | | | | | | | | | | ALTITUDE m <input checked="" type="checkbox"/> 0-30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SOIL Turakirae gravelly sand. Sands, gravels, peats, peaty soils, skeletal soils on recently deposited alluvium with high silt and clay content. | | | | | | | | | | ASPECT South-west, south and south east. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRAINAGE Very good on beach ridges, impeded in places on beach platforms. | | | | | | | | | | RAIN mm/yr 940 <i>(approx)</i> NAT FERTILITY Low | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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FENCING Most of the reserve needs fencing especially the wetlands. Selected areas could possibly support light grazing. PRIORITY High priority after grazing lease expires.</p> | | | | | | | | | | | | <p>RATING 0-10 SCIENTIFIC ..8.. 7 SCENIC 8 RECREATION</p> | | | | | | | | | | | | <p>CONCLUSIONS and RECOMMENDATIONS The primary management objective of this reserve is to protect and preserve the geomorphological features of the reserve, which contains the best example of tilted raised beach ridges in New Zealand. In doing so the reserve also protects the largest non-breeding colony of the New Zealand fur seal on the Wellington coast, four lizard species including two uncommon species, a small freshwater shrimp of localised distribution, a rich and diverse flora and a chronosequence of vegetation and soils on the different aged beaches.</p> <p>The reserve should be completely fenced off from stock on the landward side after the grazing lease runs out. At present sheep are preventing any regeneration of shrubs under the karaka forests and manuka shrubland. Cattle are still encroaching on the wetlands.</p> <p>The reserve should be extended to include all the karaka-mixed forest growing on the slopes above and to the east of Barney's Whare as mixed karaka forest is unrepresented in the mainland reserves of Wellington.</p> <p>The Turakirae beach area has been the subject of a number of scientific papers and reports (geological, botanical, zoological and archaeological) and a full reference list is given in the management plan of the reserve. In Bagnall's 1975 paper on the vegetation of the raised beaches at Cape Turakirae he presents a detailed vegetation map of part of the scientific research in which he describes and</p> <p>(Continued..)</p> | | | | | | | | | | | | <p>12 hours Fine conditions MCW, DJC December 1983 - January 1984</p> | | | | | | | | | | | |
| MAIN HABITATS and FEATURES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>1. Dry pasture land on young silty and clay soils (outside reserve boundary) 2. Open coastal grassland. 3. <u>Coprosma-Muehlenbeckia</u> grass shrubland on gravelly and stony soils with emergent boulders. 4. <u>Raupo</u> reedland in peat mire. 5. Gravel, stone and boulderland. 6. Stone - boulderland with shore ribbonwood shrubland and salt-tolerant herbfield. 7. <u>Olearia</u> - flax shrubland - herbfield - boulderland 8. Mixed shrubland - grassland - wet herbfield - boulderland 9. <u>Tauhinu</u> shrubland 10. Karaka-ngaio-pigeonwood-titoki forest (outside reserve boundary) 10a. Peripheral shrubland (most outside reserve boundary) 11. Wet herbfield (outside reserve boundary) 12. Sedgeland - wet herbfield (outside reserve boundary) 13. Karaka forest - boulderland 13a. Remnant <u>karaka</u> stands on gravel. 14. <u>Manuka</u> shrubland 15. Mixed shrubland - wet herbfield - boulderland 16. <u>Leptospermus</u> - flax reedland on peats.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>1. Dry grassland of sweet vernal, cocksfoot, perennial rye, <i>Rytidosperma</i> sp., <i>Bromus mollis</i>, Yorkshire fog, clover species and hare's tail grass with scattered shrubs of <i>Coprosma propinqua</i>, <i>Muehlenbeckia complex</i>, <i>Hymenanthera crassifolia</i>, and <i>Scirpus nodosus</i> reaching up to 1 m. 2. Open coastal grassland of <i>Poa laevis</i>, spinifex and hare's tail on fore-dune of coarse sand with mats of <i>Raoulia hookeri</i> and cat's ear on back-dune. 3. Mosaic of vegetation dominated by <i>Coprosma propinqua</i> and <i>Muehlenbeckia complexa</i> with some tauhinu and <i>Olearia solandri</i> reaching up to 1m in a dry grassland. Vegetation varies from near complete shrubland to a mosaic of grass and shrubs. Flax is important on the coastal side. 4. Raupo reaching up to 2.0m in summer, dominates the wettest parts of peat mire. Peripheral vegetation includes <i>Cyperus ustulatus</i>, flax, toetoe and wet herbfield species. 5. Coastal terrace and boulder ridge with scattered plants of horned poppy, Scotch thistle, shore ribbonwood, <i>Silybum marianum</i>, and <i>Hordeum murinum</i>. 6. Stone-boulderfield reaching up to 60% with scattered shrubs of shore ribbonwood, toetoe <i>Olearia solandri</i> and small areas of salt-tolerant herbfield composed of <i>Selliera</i>, <i>Sarcocornia</i>, <i>Triglochin</i>, <i>Ranunculus acaulis</i> and <i>Apium</i>. 7. <i>Olearia solandri</i> and flax interspersed with wet-loving species especially <i>Cyperus</i>, <i>Scirpus</i> prolifer and herbfield species on boggy soils with patches of raised dry areas and emergent boulders.</p> <p>(Continued..)</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>CONDITION Sheep and cattle have affected all vegetation types. There is little regeneration under the manuka shrublands and karaka forests. The condition has improved since Bagnall's study in 1971 as grazing has not been heavy and shrub growth into grassland is evident. FENCING Most of the reserve needs fencing especially the wetlands. Selected areas could possibly support light grazing. PRIORITY High priority after grazing lease expires.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>RATING 0-10 SCIENTIFIC ..8.. 7 SCENIC 8 RECREATION</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>CONCLUSIONS and RECOMMENDATIONS The primary management objective of this reserve is to protect and preserve the geomorphological features of the reserve, which contains the best example of tilted raised beach ridges in New Zealand. In doing so the reserve also protects the largest non-breeding colony of the New Zealand fur seal on the Wellington coast, four lizard species including two uncommon species, a small freshwater shrimp of localised distribution, a rich and diverse flora and a chronosequence of vegetation and soils on the different aged beaches.</p> <p>The reserve should be completely fenced off from stock on the landward side after the grazing lease runs out. At present sheep are preventing any regeneration of shrubs under the karaka forests and manuka shrubland. Cattle are still encroaching on the wetlands.</p> <p>The reserve should be extended to include all the karaka-mixed forest growing on the slopes above and to the east of Barney's Whare as mixed karaka forest is unrepresented in the mainland reserves of Wellington.</p> <p>The Turakirae beach area has been the subject of a number of scientific papers and reports (geological, botanical, zoological and archaeological) and a full reference list is given in the management plan of the reserve. In Bagnall's 1975 paper on the vegetation of the raised beaches at Cape Turakirae he presents a detailed vegetation map of part of the scientific research in which he describes and</p> <p>(Continued..)</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>12 hours Fine conditions MCW, DJC December 1983 - January 1984</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MAIN HABITATS AND FEATURES (Continued)

8. Mosaic of tauhinu, *Olearia solandri*, *Scirpus nodosus*, flax, *Carex flagellifera* and dry grassland species with patches of wet herbfield of *Eleocharis*, *Scirpus prolifer*. The community varies from a closed shrubland to scattered shrubs in grassland with areas of wet herbfield.
 9. Closed tauhinu shrubland reaching up to 1.5m with occasional plants of *Coprosma propinqua*, *Muehlenbeckia complexa* on recently deposited alluvial fans. Dry grassland species are common amongst the shrubs.
 10. Karaka dominated forest on steep colluvial slopes, with occasional ngaio, pigeonwood and titoki reaching up to 9.0m.
 - 10a. Peripheral shrubland of mahoe and kaikomako reaching up to 3.0m on coarse stone and gravel at toe of hillslope. Understorey consists of occasional shrubs of tree nettle and ground vegetation of scattered clumps of *Parietaria debilis* and the thistle *Silybum marinum*.
 11. Low growing herbaceous vegetation on boggy areas. The vegetation is dominated by varying proportions of *Eleocharis* spp., *Schoenus* spp, *Scirpus* spp, *Juncus* spp, *Ranunculus* spp and *Cyperus*. Some areas contain pools with aquatic species.
 12. Wet herbfield dominated by dense cover of *Cyperus ustulatus* and *Carex geminata* reaching up to 1m on boggy - peaty areas.
 13. Small area of karaka trees with occasional cabbage tree and mahoe growing amongst large boulders on beach platform. Boulders support scattered plants of *Bulbophyllum*, *Dendrobium*, *Hymenophyllum sanguinolentum* and *Asplenium terrestris* ssp *maritimum*.
 - 13a. Small remnant stands of karaka on coarse stone and gravel at toe of hillslope.
 14. Manuka shrubland up to 3.5m tall with flax on peaty soils. Open understorey with some tree nettle present. Ground cover consists of scattered ferns and grasses and *Centella uniflora*.
 15. Mosaic of shrubs of manuka, tauhinu, *Olearia solandri* and flax up to 3m tall with *Cyperus*, *Leptocarpus similis* and wet herbfield species on boggy-moist peaty soils with raised dry areas and large emergent boulders.
 16. *Leptocarpus similis* up to 0.6m with flax on boggy-moist peats and peaty soils with large emergent boulders.

CONCLUSIONS AND RECOMMENDATIONS (Continued)

maps 40 different vegetation types. The present work has not been undertaken at such a detailed scale but some vegetation changes are evident from the two surveys. An area of grassland adjacent to a large alluvial fan south of Barney's Whare was mapped by Baughnall but this area now supports a tauhinu shrubland.

Upgrading and extension of the existing roads around the Cape Turakirae coast must not encroach upon the reserved area.

Bagnall, R.G. 1975: Vegetation of the Raised Beaches at Cape Turakirae, Wellington, New Zealand. N.Z.J. Bot., 13: 367-424.

Druce, A.P. 1984: Indigenous vascular plants from Baring Head to Turakirae Head to Windy Point. South Wellington Coast, sea level to 500 ft. Unpublished list. 6 pp. Botany Division, D.S.I.R., Lower Hutt.

Other references are to be found in Dept. of Lands and Survey, 1984. Management Plan. Turakirae Head Scientific Reserve.

REFERENCES

Tall conifer: kahikatea, kauri, matai, miro, rimu, totara

? remaining 11 tree-sized spp

3 broadleaved

e.g. *flax*

⁵ incl. rough grassland, pasture etc

Indicators sp. but not on T.P.L.

TREES AND SHRUBS

Native

Alectryon excelsus
Brachyglottis repanda
Carmichaelia arborea
Cassinia leptophylla
Coprosma crassifolia
C. propinqua
C. repens
C. rhamnoides
C. robusta
C. virescens
Cordyline australis
Corynocarpus laevigatus
Cyathodes juniperina

Gaultheria antipoda
Griselinia lucida
Hebe stricta var. atkinsonii
H. sp. (Veronica arborea)
Hedycarya arborea
Helichrysum aggregatum
Hymenanthera crassifolia
Knightia excelsa
Korthalsella lindsayi
Leptospermum ericoides
L. scoparium
Macropiper excelsum
Melicope ternata

Melicytus ramiflorus 38
Myoporum laetum
Myrsine australis
Olearia paniculata
O. solandri
Pennantia corymbosa
Pittosporum tenuifolium
Plagianthus divaricatus
Pseudopanax arboreus
Solanum aviculare
Sophora microphylla
Urtica ferox

Adventive

Cupressus macrocarpa
Erica lusitanica

Rosa rubiginosa
CLIMBERS, LIANES ETC.

Ulex europaeus

Native

Calystegia tuguriorum
Clematis forsteri
C. paniculata
Metrosideros diffusa

Muehlenbeckia australis
M. complexa
Muehlenbeckia australis
X M. complexa

Parsonsia capsularis 11
P. heterophylla
P. capsularis X P. heterophylla
Rubus squarrosus

Adventive

Calystegia silvatica

GRASSES, RUSHES AND LIKE PLANTS

Native

Baumea juncea
B. rubiginosa
Carex flagellifera
C. flavidiformis
C. geminata
C. pumila
C. secta
C. solandri
C. virgata
Cortaderia toetoe
Desmoschoenus spiralis
Dichelachne crinita
Echinopogon ovatus
Eleocharis acuta
E. gracilis
Elymus sp. (=Agropyron scabrum agg.)

Festuca multinodis
Hierochloe redolens
Juncus australis
J. caespiticius
J. distegus
J. gregiflorus
J. holoschoenus
J. maritimus var. australiensis
J. pallidus
J. planifolius
J. sarophorus
Lachnagrostis richardii
Lepidosperma australe
Leptocarpus similis
Luzula banksiana
L. picta
Microlaena stipoides

Poa anceps var. anceps
P. anceps var. condensata
P. sp. (aff. P. laevis)
Rytidosperma gracile 47
R. unarede
Schoenus maschalinus
Scirpus cernuus (=Isolepis cernuus)
S. lacustris (= Schoenoplectus validus)
S. nodosus (= Scirpoidea nodosa)
S. prolifer (=Isolepis prolifer)
Spinifex hirsutus (6/8/91 3M line)
Trisetum sp. (=T. antarcticum)
T. sp. (unnamed)
Uncinia leptostachya

Adventive

Aira caryophyllea
A. praecox
Anthoxanthum odoratum
Briza maxima
B. minor
Bromus mollis
Catapodium rigidum
Cynosurus cristatus

Cynosurus echinatus
Cyperus eragrostis
Dactylis glomerata
Glyceria declinata
Holcus lanatus
Hordeum murinum
Juncus acutus
J. articulatus

Juncus bufonius
J. effusus
Lolium perenne
Poa annua
P. infirma
P. pratensis
P. trivialis
Vulpia bromoides

HERBS

Native

Acaena novae-zelandiae
Acianthus fornicatus var. sinclairii
Aciphylla squarrosa
Apium prostratum
Arthropodium candidum
Astelia fragrans
Bulbophyllum pygmaeum
Caladenia catenata
Calystegia soldanella
Cardamine sp. (C. debilis agg.)
C. sp. (aff. C. corymbosa)
Centella uniflora
Colobanthus muelleri
Corybas orbiculatus
Cotula coronopifolia
C. squalida
Craspedia uniflora var. grandis
Crassula moschata
Crassula sieberiana
C. sp. (Tillaea kirkii)

Dendrobium cunninghamii
Dichondra repens
D. sp. (unnamed)
Disphyma australe ssp. australe
Drosera binata
Earina autumnalis
E. mucronata
Einadia triandra (=Rhagodia triandra)
Epilobium alsinoides
E. atriplicifolium
E. billardierianum
E. brunnescens
E. chionanthum
E. insulare
E. microphyllum
E. nerteroides
E. nummularifolium
E. pallidiflorum
E. rotundifolium
Euphorbia glauca

Euphrasia cuneata
Galium propinquum
Geranium microphyllum
G. sessiliflorum
var. *novae-zelandiae*
Glossostigma elatinoides
Gnaphalium audax
G. gymnocephalum
G. limosum
Gonocarpus aggregatus
Gratiola sexdentata
Gunnera prorepens
Haloragis erecta
Hydrocotyle americana
H. moschata
H. novae-zelandiae
Hypericum japonicum
Lagenifera pumila
Lemna minor
Libertia ixioides
Lilaeopsis sp.

HERBS (Continued)

Limosella lineata
Linum monogynum
Lobelia anceps
Mazus pumilio
Microritis unifolia
Montia fontana
Myriophyllum propinquum
M. triphyllum
Nertera depressa
Oxalis exilis
O. lactea
O. sp.
Parietaria debilis
Phormium cookianum

P. tenax
Plantago raoulii
Polygonum sp.
Potamogeton cheesemanii
Potentilla anserinoides ✓
Prasophyllum colensoi
Pratia angulata
Pseudognaphalium luteo-album
Pterostylis banksii
Ranunculus acaulis ✓
R. rivularis ✓
Raoulia australis agg.
R. glabra
R. tenuicaulis

Samolus repens
Sarcocornia quinqueflora
Scleranthus biflorus
Selliera radicans
Senecio hispidulus
S. laetus
S. minimus
Sonchus kirkii
Thelymitra longifolia
Triglochin striatum
Typha orientalis
Viola cunninghamii
Vittadinia australis
Wahlenbergia gracilis

42

Adventive

Acaena ovina
Anagallis arvensis
Atriplex patula
Bellis perennis
Callitricha stagnalis
Capsella bursa-pastoris
Centaurium erythraea
Centunculus minimus
Cerastium holosteoides
Chenopodium pumilio
Cirsium vulgare
Conyza sp.
Crepis capillaris
Digitalis purpurea
Erodium cicutarium
Euphorbia peplus
Fumaria muralis
Galium aparine
G. parisiense
Geranium molle
G. robertianum
Glaucum flavum
Gnaphalium spicatum
Hyochaeris glabra
H. radicata
Leontodon taraxacoides

Linum marginale
Ludwigia palustris
Lythrum hyssopifolia
Marrubium vulgare
Medicago lupulina
Melilotus indica
Mentha pulegium
Mimulus guttatus
Mycelis muralis
Myosotis caespitosa
M. scorpioides
Nasturtium officinale
Onopordum acanthium
Parentucellia viscosa
Picris echioptera
Plantago coronopus
P. lanceolata
P. major
Polycarpon tetraphyllum
Polygonum aviculare agg.
P. persicaria
Prunella vulgaris
Ranunculus fluitans
R. repens
R. sardous
Rumex acetosella

Rumex brownii
R. conglomeratus
Sagina procumbens
Senecio bipinnatasectus
S. jacobaea
Silybum marianum
Sisymbrium orientale
Sisyrinchium sp.
Solanum nigrum
Sonchus asper
S. oleraceus
Stellaria media
Taraxacum officinale
Torilis nodosa
Trifolium arvense
T. dubium
T. glomeratum
T. micranthum
T. repens
T. striatum
T. subterraneum
Veronica serpyllifolia
Vicia angustifolia
V. hirsuta
V. sativa

32

FERNS AND ALLIES

Native

Adiantum cunninghamii
Alsophila tricolor
Asplenium bulbiferum
A. flabellifolium
A. flaccidum ssp. *flaccidum*
A. hookerianum
A. oblongifolium
A. terrestris ssp. *maritimum*
Azolla rubra
Blechnum chambersii
B. filiforme

Blechnum minus
B. penna-marina
B. sp. (B. capense agg. - common sp.)
Ctenopteris heterophylla
Histiopteris incisa
Hymenophyllum rarum
Hymenophyllum sanguinolentum
Lastreopsis glabella
L. microsora ssp. *pentacularis*
Lycopodium varium
Ophioglossum coriaceum ✓

Paesia scaberula
Pellaea rotundifolia
Phymatosorus diversifolius
Pneumatopteris pennigera
Polystichum richardii
Pteridium esculentum
Pteris macilenta (=P. pendula)
P. tremula
Pyrrhia serpens
Sphaeropteris medullaris

Australian gannet
banded dotterel
black shag
blackbird
black-backed gull
Cape pigeon
Caspian tern
chaffinch
giant petrel

BIRDS
goldfinch
greenfinch
greywarbler
harrier
hedge sparrow
house sparrow
kingfisher
N.Z. pipit
redpoll

silvereye
skylark
spur-winged plover
starling
variable oystercatcher
welcome swallow
white-backed magpie
white-faced heron
yellowhammer

NZ fur seal
common gecko

OTHER
common skink
copper skink

Leiolopisma lineocellatum (a skink)
Litoria raniformis (a frog)

