

Motuihe Island

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Motuihe is a Recreation Reserve of 179 hectares, 16 km from downtown Auckland (Department of Conservation 1995). The geology is greywacke (southwestern end), Waitemata Sandstone (20 million years old) and thick Parnell Grit, forming most of the cliffs (Ballance & Smith 1982). There is an exposure of limestone and basal conglomerate on the west

coast. Soils are Brookby Clay Loam and Marua Clay Loam.

Rabbits are very abundant, but there are no possums. There is a huge population of rabbits inhabiting the buckthorn thickets and the native bush areas. Pukekos are particularly abundant.

History

Historical sketches have been given by Campbell (1996), Cameron et al. (1997), and Brassey (1999). Some 36 prehistoric archaeological sites have been documented by Hayward (1980). There are two pa sites, several kumara pits, and numerous middens comprising shells of cockles, pipi, tuatua, mussels, and scallops.

In summary, the major events have been:

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| Maori occupation | 36 prehistoric archaeological sites. |
| 1839 | Sold to Europeans. Changed hands several times. |
| 1840s-50s | Run as island farm by William Brown and John Logan Campbell (also owned Brown's Island). Olive trees. Pigs, goats, hens. |
| 1872-1929 | Island bought by Crown in 1872. Human quarantine station. Probably many of the exotic trees planted from 1872 onwards. Old buildings from Albert barracks. 22 buildings. Immigrants arriving with infectious diseases. Cemetery. Also used as an animal quarantine station up to 1893. |
| 1914-1918 | Prisoner of War Internment Camp (captured in Samoa). Count Felix Von Luckner and crew (1917) – escaped to Kermadecs (recaptured). Also used as quarantine station again in 1918 for influenza epidemic. |
| 1929 | Children's Health Camp run by Community Sunshine Association. |
| 1941-1963 | HMNZS Tamaki, naval training base. Buildings removed in 1963. |
| | Remaining buildings: water tower, house Number 66, Bulding 67 (concrete block building, now hay barn), and shed at landward end of the wharf. |
| 1964 | Gazetted as a Recreation Reserve. Vested in Hauraki Gulf Maritime Park in 1968. |
| 1988-99 | Department of Conservation. Objectives are to facilitate links of Tangata whenua with the island; record and protect historic sites; protect indigenous forest and wetland areas; develop for visitors. The resident concessionaires are Ronnie Harrison and Terry Gibbons, whose activities include, farming (cattle), running the kiosk and accommodation, catering for groups, and conservation. |

Vegetation

A survey of the flora of Motuihe has been recorded by de Lange & Crowcroft (1994), with a tally of circ. 480 species – native, naturalised, and cultivated. There are four "feature" species, of unusual interest, outstanding quality, or notoriety. Norfolk pine (*Araucaria heterophylla*), is the most prominent of the large planted trees, and here shows excellent growth, stem form, and health. Aleppo pine (*Pinus halepensis*), from the Mediterranean coast, occurs commonly on the cliff edges, and is regenerating in a number of places. The third is the olive (*Olea europaea*), occurring in a formal grove, attributed to

Sir John Logan Campbell, and now abundantly naturalised. The fourth is evergreen buckthorn (*Rhamnus alaternus*), which has become very prominent along the coastal cliffs, forming dense thickets - a truly spectacular shrub weed (Stubbs 1996; Fromont 1997). Motuihe was evidently the originating site of this species in Auckland, with a herbarium specimen at the Museum, dated 1930.

Other conifers of note are numerous planted European black pine (*Pinus nigra*), abundant naturalised maritime pine (*Pinus pinaster*), a tree of

Canary Island pine (*Pinus canariensis*), numerous macrocarpa (*Cupressus macrocarpa*), and a specimen of brown pine (*Podocarpus elatus*). Other broadleaved trees present are holm oak (*Quercus ilex*), river she-oak (*Casuarina cunninghamiana*), monkey apple (*Acmena smithii*), peppermint (*Agonis flexuosa*), red flowering gum (*Corymbia ficifolia*), *Eucalyptus saligna*, *E. botryoides*, *E. pilularis*, *E. leucoxydon*, and Moreton Bay fig (*Ficus macrophylla*).

There are three native bush patches - the Orchard Block (west of the water tanks), Von Luckner's Block (opposite, towards South East Beach, and comprising stands of taraire), and Campbell's Bush beyond the water tanks at the trig towards Bald Nob. Esler (1980, 1993) has given a description of these. The native bush remnant in the Orchard Block is fenced off, and has some excellent puriri (*Vitex lucens*), kohekohe (*Dysoxylum spectabile*) with impressive crops of developing fruits, a massive kowhai tree (*Sophora microphylla*), taraire (*Beilschmiedia tarairi*), rewarewa (*Knightia excelsa*), and karaka (*Corynocarpus laevigatus*). The understorey is sparse and mainly mahoe (*Melicytus ramiflorus*) and kawakawa (*Macropiper excelsum*), with elaeagnus taking hold. Pohutukawa (*Metrosideros excelsa*) occurs on cliffs in many places, together with houpara (*Pseudopanax lessonii*) and karo (*Pittosporum crassifolium*). There are several old trees of ngaio (*Myoporum laetum*), reportedly planted in the 1840s. In addition to the buckthorn, there are several other weeds, including Bathurst burr (*Xanthium spinosum*) and pennyroyal (*Mentha pulegium*), abundant on farmland, gorse (*Ulex europaeus*) and tobacco weed (*Solanum mauritianum*) in coastal thickets and bush fringes, and elaeagnus (*Elaeagnus x reflexus*), moth

plant (*Araujia hortorum*), and banana passionfruit (*Passiflora mixta*). Bald Knob is heavily covered with bushes of Apple of Sodom (*Solanum linnaeanum*).

Clunie (1995) mentions the problem environmental weeds on Motuihe as:

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| <i>Rhamnus alaternus</i> | evergreen buckthorn |
| <i>Araujia sericifera</i> | moth plant |
| <i>Solanum mauritianum</i> | woolly nightshade, tobacco weed |
| <i>Pennisetum clandestinum</i> | kikuyu grass |
| <i>Cortaderia selloana</i> | pampas |
| <i>Cortaderia jubata</i> | purple pampas |
| <i>Acmena smithii</i> | monkey apple |
| <i>Euonymus japonicus</i> | Japanese spindle tree |
| <i>Pinus pinaster</i> | maritime pine |
| <i>Olea europaea</i> | African olive |
| <i>Crassula multicava</i> | pitted crassula |
| <i>Ammophila arenaria</i> | marram grass |

Environmental weeds in lower numbers are:

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| <i>Elaeagnus x reflexus</i> | elaeagnus |
| <i>Chrysanthemoides monolifera</i> | boneseed |
| <i>Berberis glaucocarpa</i> | barberry |
| <i>Crataegus monogyna</i> | hawthorn |
| <i>Cakile edentula, C. maritima</i> | sea rocket |
| <i>Agave americana</i> | century plant |
| <i>Impatiens sodenii</i> | shrub balsam |
| <i>Rorippa nasturtium-aquaticum</i> | water cress |
| <i>Crococsmia x crocosmiifolia</i> | montbretia |
| <i>Opuntia vulgaris</i> | prickly pear |
| <i>Hedera helix</i> | ivy |
| <i>Cotoneaster glaucophylla</i> | cotoneaster |
| <i>Iris foetidissima</i> | stinking iris |
| <i>Arum italicum</i> | Italian arum |
| <i>Amaryllis belladonna</i> | naked ladies |
| <i>Ulex europaeus</i> | gorse |
| <i>Xanthium spinosum</i> | Bathurst burr |
| <i>Phytolacca octandra</i> | inkweed |
| <i>Solanum linnaeanum</i> | apple of Sodom |

Most of the island is farmed, the prominent pasture grasses being ratstail (*Sporobolus africanus*), cocksfoot (*Dactylis glomerata*), and perennial ryegrass (*Lolium perenne*). The pasture is very uneven to walk on, and must have become pugged by cattle hooves during the very wet winter.

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Note: This article was originally prepared as a handout for the Auckland Tree Council excursion to Motuihe on 28 February 1999.