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Four Reserves and a River – Warkworth

Maureen Young

In 1987 a small booklet, "Scenic Reserves near Warkworth", compiled by A.E. Esler, W.M. Hamilton, F. Hudson and M. Young was published as a Lucy Moore memorial pamphlet by the Mid-North Branch of the Royal Forest and Bird Protection Society (Esler et al. 1987). The preface, in part, states: "Warkworth is a small town situated at the head of the navigable portion of the Mahurangi River, where the tidal waters meet the fresh. The once forested hills which surround the town were cleared of most of their timber in the 19th century – at first for kauri spars for the Admiralty and for timber for the Australian market, then later, to satisfy the demands of the rapidly growing city of Auckland. As settlers began to take up blocks for farming it became necessary to further clear the land for pasture. Fortunately this necessity did not preclude the retaining of some of the natural cover. Indeed, the early settlers seemed to have had a fondness for the bush, and many of them kept a patch on their properties. Much of the present charm of Warkworth and the Mahurangi district is due to the presence of these areas of bush."

Three of the reserves described in the pamphlet have boundaries on the eastern side of the Mahurangi River, or on a small tributary called Duck Creek. A fourth reserve sited further up Duck Creek has since been purchased. These four reserves make a continuous band of forest on the triangle of land formed by the river and creek (Fig. 1). Public access to all four is problematical. A short length of Duck Creek Road is a public road, and from this an ankle-deep stream crossing gives access to Glen Kowhai Reserve and hence to the other three. For locals an easier access to the two reserves on the Mahurangi River can be gained through the goodwill of a neighbouring farmer.

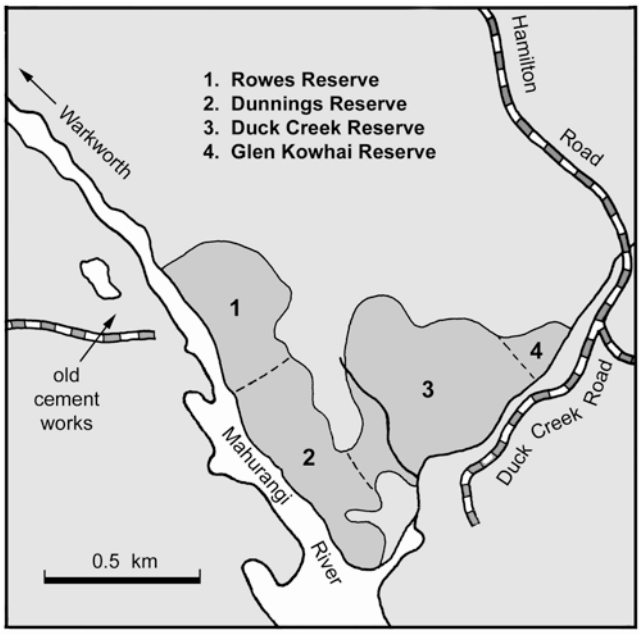

Fig. 1. Map showing the four reserves on the Mahurangi River and Duck Creek. Drawn by Maureen Young and Josh Salter.

Rowes Scenic Reserve and Dunnings Reserve

These two reserves run contiguously down the Mahurangi River, and as the boundary between the two is difficult to locate on the ground they will be described as one unit. Rowes Scenic Reserve (Fig. 2) is 2½ km downstream from Warkworth, opposite the old cement works. It was purchased by the Crown in 1979 and has an area of 9.35 ha.

In Dunnings Reserve the bush continues down the Mahurangi to the mouth of Duck Creek. This area of

Fig. 2. The Mahurangi River and Rowes Reserve from the old cement works. The vegetation grades from mangroves, through broadleaf to kauri. Photo: F. Mendel, July 2011.

11.23 ha was donated by James Dunning as far back as 1912, and was originally administered by three trustees. In 1954 it was transferred to Rodney County Council and in 1985 to the Crown. In these reserves the many kauri rickers growing on the ridge tops are visible from the southern streets of Warkworth. One kauri with a circumference of 7.4 metres has survived the logging days (Fig. 3).

Fig. 3. Large kauri tree in Rowes Reserve. Photo: L. Wade, April 2011.

The land drops steeply down to the river and the lower slopes are covered in broadleaf forest, with taraire, puriri, karaka and kowhai dominant. The well-drained slopes support kawakawa (*Macropiper excelsa*) and *Rhabdothamnus solandri*. The fern *Asplenium gracillimum* commonly grows there. This is the entity with dark green fronds and rounded pinnules that was formerly called *Asplenium bulbiferum* var. *laxum* (Crookes & Dobbie 1963). There is little in the way of weeds – a few seedlings of privet and climbing asparagus (*Asparagus scandens*), one large *Pinus radiata* and a plant of ginger (removed). Three or four kauri trees have succumbed to kauri dieback disease (*Agathis* PTA).

Duck Creek Scenic Reserve and Glen Kowhai Reserve

These two reserves run up Duck Creek and as the boundary between them is not marked on the ground they too will be treated as one. They are more floristically rich than the previous two (see species list in Appendix). Duck Creek Reserve has an area of 14.6 ha and was purchased by the Crown in 1980. In the south-west corner it shares a short boundary with Dunnings Reserve. On the northern boundary there are seried ranks of well-defined kumara pits.

Glen Kowhai is actually a nameless reserve of 4.4ha purchased by the Rodney District Council in 2005. I have chosen to use this name as it was once part of the Glen Kowhai property owned for many years by the Morrison family. The Morrisons were, and still are in one instance, a well-known family of orchardists. In the 1920s and 30s the several Morrison children would walk through the bush to catch the school launch which ferried Mahurangi children up and down the river at the beginning and end of each school day. The track is still well defined.

The steep riverine slopes support kowhai, titoki, tawa, taraire, karaka and puriri. There are some mangeao trees (*Litsea calicaris*) with scattered seedlings, and a good area of hard beech, though regeneration of this is rare. Tanekaha is a common component throughout in both the broadleaf area and on the north-west ridge where young kauri are regenerating through kanuka. This ridge was logged for the second time in 1926-30, and a logging trench can still be traced on the ground. Mairehau (*Leionema nudum*) is quite common there, especially in light gaps. Two ferns of interest are the velvet fern (*Lastreopsis velutina*) and the dainty *Doodia mollis*. The giant maidenhair, *Adiantum formosum*, which is common in Australia but only grows naturally in the Manawatu Gorge in New Zealand, is a puzzling addition to the flora, flourishing as it does on the stream bank. Some detective work uncovered the fact that it was planted in 1935 by a neighbour and friend of the Morrison family, W.M. Hamilton. In later

years Dr Hamilton married Alice, the youngest of the Morrison girls, and became Director-General of the DSIR.

Unfortunately some escapees from the Morrison garden have found a home in Glen Kowhai Reserve and are spreading. Climbing asparagus is the worst of these, and there is a small patch of ladder fern (*Nephrolepis cordifolia*) and some fan palm trees (*Trachycarpus fortunei*). The kauri dieback disease has gained a toehold in some of the trees in the upper reaches.

Acknowledgements
My thanks to Mark Paterson, Vivienne Paterson, Lyn Wade, Alison Wesley, and David Wilson for company on visits to the four reserves, and to Peter and Beverley Adolph for permission to cross their farmland.

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Appendix: Vascular indigenous plant species list for Duck Creek & Glen Kowhai Reserves (DC & GK), Rowes & Dunnings Reserves (R & D). Compiled by Esler (1987), and by M.J. Paterson, V.J. Paterson, M.L. Wade, A.W. Wesley, D.S. Wilson, & M.E. Young in 2010 and 2011)

	DC & GK	R & D
FERNS & LYCOPHYTES		
Adiantum aethiopicum (planted)	×	
Adiantum cunninghamii	×	×
Adiantum diaphanum	×	
Adiantum formosum (planted)	×	
Adiantum fulvum		×
Adiantum hispidulum		
Adiantum viridescens	×	×
Asplenium bulbiferum	×	×
Asplenium flaccidum	×	×
Asplenium gracillimum		×
Asplenium lamprophyllum	×	×
Asplenium oblongifolium	×	×
Asplenium polyodon	×	×
Blechnum chambersii	×	×
Blechnum discolor	×	
Blechnum filiforme	×	×
Blechnum fluviatile	×	
Blechnum fraseri	×	
Blechnum membranaceum	×	×
Blechnum novae-zelandiae	×	×
Cardiomanes reniforme	×	×
Cyathea dealbata	×	×
Cyathea medullaris	×	×
Deparia petersenii	×	×
Dicksonia squarrosa	×	
Diplazium australe		×
Doodia australis	×	×
Doodia mollis	×	×
Gleichenia microphylla	×	
Huperzia varia	×	
Hymenophyllum demissum	×	×
Hymenophyllum demissum	×	
Hymenophyllum flabellatum	×	
Hymenophyllum flexuosum	×	
Hymenophyllum revolutum	×	
Hymenophyllum sanguinolentum	×	×
Lastreopsis glabella	×	×
Lastreopsis hispida	×	×
Lastreopsis microsora	×	×
Lastreopsis velutina	×	×
Leptopteris hymenophylloides	×	
Lindsaea linearis	×	
Lindsaea trichomanoides	×	×
Loxogramme dictyopteris	×	
Lycopodium deuterodensum	×	
Lycopodium volubile	×	×
Lygodium articulatum	×	×
Microsorum pustulatum	×	×
Microsorum scandens	×	×
Paesia scaberula	×	×
Pellaea rotundifolia	×	×
Pneumatopteris pennigera	×	×
Polystichum neozelandicum	×	×
Pteridium esculentum	×	×
Pteris macilenta	×	×
Pteris tremula	×	×
Ptisana salicina (planted)	×	
Pyrrosia eleagnifolia	×	×
Rumohra adiantiformis	×	
Schizaea fistulosa	×	
Tmesipteris elongata	×	×
Tmesipteris lanceolata	×	×
Tmesipteris sigmatifolia	×	
Trichomanes elongatum	×	
Trichomanes venosum	×	
GYMNOSPERMS		
Agathis australis	×	×
Dacrycarpus dacrydioides	×	×
Dacrydium cupressinum	×	×
Phyllocladus trichomanoides	×	×
Podocarpus hallii	×	
Podocarpus totara	×	×
Prumnopitys ferruginea	×	×
Prumnopitys taxifolia	×	×

	DC & GK	R & D
DICOTYLEDONS		
Alectryon excelsus	×	×
Alseuosmia macrophylla	×	×
Avicennia marina		×
Beilschmiedia tarairi	×	×
Beilschmiedia tawa	×	×
Brachyglottis repanda	×	×
Calystegia sepium	×	
Carmichaelia australis	×	×
Carpodetus serratus	×	×
Centella uniflora	×	×
Clematis cunninghamii	×	×
Clematis paniculata	×	×
Coprosma arborea	×	×
Coprosma areolata	×	×
Coprosma grandifolia	×	×
Coprosma lucida	×	×
Coprosma rhamnoides	×	×
Coprosma robusta	×	×
Coprosma spathulata	×	×
Corokia buddleioides	×	
Corynocarpus laevigatus	×	×
Dichondra repens	×	×
Dysoxylum spectabile	×	×
Elaeocarpus dentata		×
Elatostema rugosum	×	×
Entelea arborescens	×	
Euchiton collinus		×
Fuchsia excorticata	×	
Geniostoma ligustrifolium	×	×
Griselinia lucida	×	×
Haloragis erecta	×	
Hebe stricta	×	×
Hedycarya arborea	×	×
Hoheria populnea	×	
Knightia excelsa	×	×
Kunzea ericoides	×	×
Lagenifera pumila		×
Leionema nudum	×	
Leptecophylla juniperina	×	
Leptospermum scoparium	×	×
Leucopogon fasciculatus	×	×
Litsea calicaris	×	×
Macropiper excelsa	×	×
Melicytus macrophyllus	×	×
Melicytus micranthus	×	
Melicytus ramiflorus	×	×
Metrosideros diffusa	×	×
Metrosideros fulgens	×	×
Metrosideros perforata	×	×
Metrosideros robusta	×	
Mida salicifolia	×	
Myrsine australis	×	×
Nertera depressa		×
Nertera dichondrifolia	×	×
Nestegis cunninghamii	×	
Nestegis lanceolata	×	×
Nothofagus truncata	×	
Olearia furfuracea	×	×
Olearia rani	×	×
Parsonsia heterophylla		×
Pittosporum cornifolium	×	
Pittosporum tenuifolium	×	×
Pseudopanax arboreus	×	×
Pseudopanax crassifolius	×	×
Pseudopanax lessonii	×	×
Pseudopanax crassifolius x *P. lessonii*	×	
Ranunculus reflexus	×	×
Rhabdothamnus solandri	×	×
Rubus australis	×	×
Rubus cissoides	×	×
Schefflera digitata	×	×
Senecio hispidulus	×	
Senecio minimus	×	
Sophora chathamica	×	×
Streblus heterophyllus	×	×
Toronia toru	×	
Vitex lucens	×	×
Weinmannia silvicola	×	×
MONOCOTYLEDONS		
Acianthus sinclairii	×	×
Apodasmia similis	×	
Astelia banksii	×	
Astelia solandri	×	×
Astelia trinervia	×	
Baumea juncea	×	
Carex dissita	×	×
Carex flagellifera	×	
Carex lambertiana	×	×
Carex lessoniana	×	
Carex solandri	×	
Carex virgata	×	
Collospermum hastatum	×	×
Cordyline australis	×	×
Cordyline banksii	×	×
Cordyline pumilio	×	×
Cyperus ustulatus	×	
Cyrtostylis oblonga	×	×
Dianella nigra	×	×
Earina mucronata	×	×
Freycinetia banksii	×	×
Gahnia lacera	×	×
Gahnia pauciflora	×	×
Gahnia setifolia	×	×
Gahnia xanthocarpa	×	×
Ichthyostomum pygmaeum	×	
Isolepis cernua	×	
Lepidosperma australe	×	
Libertia ixioides	×	
Microlaena stipoides	×	
Microtis unifolia	×	
Morelotia affinis		×
Nematoceras rivulare		×
Nematoceras trilobum	×	
Oplismenus hirtellus	×	×
Poa anceps	×	

	DC & GK	R & D
Phormium tenax	×	
Pterostylis agathicola	×	×
Pterostylis alobula	×	
Pterostylis banksii	×	×
Pterostylis brumalis	×	×
Pterostylis trullifolia	×	
Rhopalostylis sapida	×	×
Ripogonum scandens	×	×
Rytidosperma biannulare		×
Rytidosperma gracile	×	
Schoenus maschalinus		×
Schoenus tendo	×	×
Thelymitra longifolia	×	×
Uncinia banksii		×
Uncinia uncinata	×	×
Uncinia zotovii	×	

Muehlenbeckia complexa var. *grandifolia* Carse

Mei Nee Lee

Muehlenbeckia australis (Polygonaceae) is a commonly occurring native scrambling vine. It has a wide distribution throughout the North and South Islands, Three Kings, Stewart Island and Chatham Islands (Allan 1961), and is usually seen on bush margins scrambling over other plants.

In late summer 2011, I came across a population of *Muehlenbeckia* ?*australis* in a site off Don Buck Road in Massey, West Auckland. The site was a weedy gully with tall wattle trees in the canopy and an infestation of kiwifruit (*Actinidia deliciosa*) climbing up the wattle trees (*Acacia* spp.). The understory was a mix of

Fig. 1. AK 326493 *Muehlenbeckia australis* (M.N. Lee & J. Byrd, 5 April 2011). Arrows indicate locations of the ochreae (fused stipules at nodes, typical of Polygonaceae). Photo: E. Cameron, 5 Nov 2011.

Fig. 2. Close-up of pubescence on the young stems. Note that the ochrea (arrow) is relatively smooth. Photo: E. Cameron, 5 Nov 2011.