

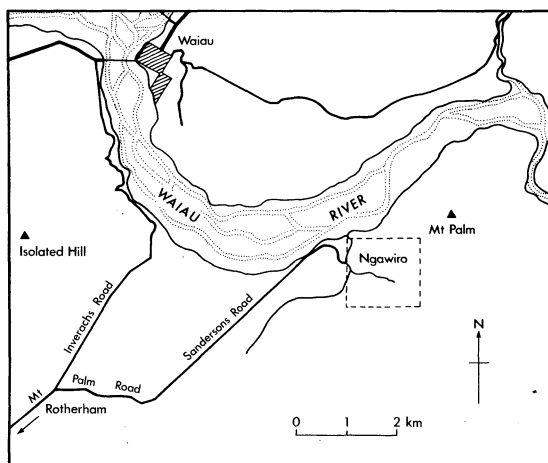
to ripening from this year's flowering. Seeds should be maturing from March to May 1981.

REFERENCE

- Wardle, P. 1971: Biological Flora of New Zealand.6.
Metrosideros umbellata Cav. [syn.
M. lucida (Forst.f.) A. Rich]
(Myrtaceae) Southern rata.

"NGAWIRO", WAIAU, NORTH CANTERBURY, 23.1.1980

M.J.A. Simpson, J.M. Macfarlane, B.H. Macmillan,
B.A. Matthews, J. Elix



Four of us, Bryony Macmillan, Barbara Matthews, Jack Elix and M.J.A.S., accepted an invitation to look at remnant indigenous vegetation in a short stream valley at "Ngawiro" the North Canterbury property of Mr. and Mrs. A.A. Macfarlane on the north end of the Lowry Peaks Range. On a lovely day in late January 1980, guided by Mrs. Macfarlane and accompanied by her granddaughter Jane Gerard, we made our way from the homestead at c. 400' up a boulder strewn stream (shown in Fig.1) to a height of c. 1000'. Mrs. Macfarlane told us that the name "Ngawiro" means "warm place", possibly referring to the burning of the original bush in pre-European times. Logs of Podocarpus totara have been found on nearby Mt. Palm (a shortened version of the original name, Mt. Palmerston). A swampy area on the property once supported white pine, Dacrycarpus dacrydioides, and in more recent times the valley we investigated was dominated by manuka, Leptospermum scoparium, until this was killed off with blight. Today the stream banks support scattered clumps of twiggy shrubs with occasional bushes of Olearia and small stands of Pseudopanax and kowhai, Sophora microphylla. Lianes and scrambling plants are common but ferns were surprisingly few. In the modified pasture on the surrounding slopes there are few native

plants. Bryony Macmillan prepared a list of mosses, Barbara Matthews the grasses, rushes and sedges and Jack Elix, a visitor to Botany Division from the Australian National University, Canberra, the impressive list of lichens.

MOSESSES: ground and rock species: Epiphytes not collected.

<i>Acrocladium chlamydophyllum</i>	<i>Hypopterygium novae-seelandiae</i>
<i>Barbula pseudopilifera</i>	<i>Lembophyllum divulgum</i>
<i>Brachythecium albicans</i>	<i>Ptychomnion aciculare</i>
<i>Breutelia affinis</i>	<i>Racopilum strumiferum</i>
<i>Breutelia pendula</i>	<i>Rhynchostegium tenuifolium</i>
<i>Bryum billardieri</i>	<i>Schistidium apocarpum</i>
<i>Bryum chrysoneuron</i> group	<i>Thuidium furfurosum</i>
<i>Ceratodon purpureus</i>	<i>Tortula princeps</i>
<i>Fissidens anisophyllum</i>	<i>Tortula serrulata</i>
<i>Fissidens leptocladus</i>	<i>Tridontium tasmanicum</i>
<i>Fissidens rigidulus</i>	<i>Triquetrella papillata</i>
<i>Grimmia pulvinata</i>	<i>Weissia controversa</i>
<i>Hypnum cupressiforme</i>	

LICHENS

<i>Bacidia</i> sp.	<i>Leptogium</i> sp.
<i>Buellia</i> sp.	<i>Parmelia caperata</i> (L.) Ach.
<i>Caloplaca thomsonii</i> Zahlbr.	<i>Parmelia congensis</i> (J.Stein.)
<i>Caloplaca</i> sp.	<i>Parmelia dichotoma</i> Mull.Arg.
<i>Candelariella vitellina</i> (Ehrh.) Mull.Arg.	<i>Parmelia flavescens</i> Gyeln.
<i>Cladia aggregata</i> (Sw.) Nyl.	<i>Parmelia borreni</i> (Sm.) Turn.
<i>Cladonia fimbriata</i> (L.) Fr.	<i>Parmelia glabratuloides</i> Essl.
<i>Collema</i> spp. (2 species)	<i>Parmelia labrosa</i> (Zahlbr.) Hale
<i>Diploschistes bryophilus</i> (Ehrh.) Zahlbr.	<i>Parmelia pulla</i> Ach.
<i>Diploschistes</i> cf. <i>scruposus</i>	<i>Parmelia scabrosa</i> Tayl.
<i>Haematomma babingtonii</i> Massal.	<i>Parmelia subrudecta</i> Nyl.
<i>Lecanora atra</i> (Huds.) Ach.	<i>Parmelia thamnoides</i> Kurok.
<i>Lecanora</i> cf. <i>subcarnea</i>	<i>Parmelia</i> sp.
<i>Lecanora</i> cf. <i>subfusca</i>	<i>Peltigera dolichorhiza</i> (Nyl.) Nyl.
<i>Lecanora</i> spp. (3 species)	<i>Peltigera praetextata</i> (Fl.) Vain.
<i>Lecidea</i> spp. (3 species)	<i>Pertusaria superba</i> Zahlbr.
<i>Leptogium denticulatum</i> Nyl.	<i>Physcia adscendens</i> (Fr.) Oliv.
<i>Leptogium menziesii</i> (Sm. in Ach.) Mont.	<i>Physcia aipolia</i> (Hoffm.) Furn.

LICHENS (Continued)

Physcia caesia (Hoffm.) Furn.
Physcia callosa Nyl.
Pseudocyphellaria crocata (L.)
Vain.
Psoroma leprolomum (Nyl.) Ras.
Ramalina linearis Ach.
Rhizocarpon cf. *geographicum*

Sticta limbata (Sm.) Ach.
Teloschistes velifer F.Wils.
Usnea inermis Mot.
Xanthoria novozelandica Hillm.
Xanthoria parietina (L.) Th.Fr.

TREES AND LARGE SHRUBS

Carmichaelia ovata
Coprosma propinqua
Coprosma rhamnoides
Cordyline australis
Coriaria arborea
Discaria toumatou
Leptospermum scoparium

Olearia avicenniaefolia
Olearia paniculata
Olearia virgata var. *lineata*
(1 only)
Pseudopanax arboreus
Pseudopanax crassifolius
Sophora microphylla

HYBRID

X *Coprosma cunninghamii*

SMALL SHRUBS

Astelia fragrans
Cassinia sp.
Haloragis erecta
Hebe parviflora
Hebe raoulia var.

Hebe salicifolia
Helichrysum aggregatum
Hymenanchera alpina
Phormium tenax
Senecio monroi (some flowering
at this date)

GRASSES (Incomplete)

Agropyron scabrum
Dichelachne crinita
Festuca multinodus

Poa caespitosa
Rytidosperma clavatum
Rytidosperma unarede

HERBS

Acaena anserinifolia
Angelica montana
Convolvulus erubescens
Dichondra repens
Epilobium billardierianum var.
cinereum
Epilobium nummularifolium

Gingidia montana
Lagenifera strangulata
Libertia ixiodes
Oxalis exilis
Ranunculus ?hirtus
Senecio quadridentata
Wahlenbergia gracilis

CLIMBERS AND SCRAMBLERS

Calystegia tuguriorium	Muehlenbeckia complexa
Clematis afoliata	Parsonsia capsularis
Clematis quadribracteolata	Rubus schmidelioides
Muehlenbeckia australis	

FERNS

Asplenium flabellifolium	Polystichum richardii
Asplenium flaccidum	Pteridium aquilinum var. esculentum

+ one other not collected or identified:

RUSHES AND SEDGES

Carex flagellifera	Juncus gregiflorus
Carex virgata	Uncinia leptostachya
Juncus distegus	

ADVENTIVE SEDGES

Juncus articulatus	Juncus?effusus
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ADVENTIVE GRASSES (Incomplete)

Agrostis sp. (possibly A. gigantea or A. stolonifera)	Rytidosperma caespitosum	
Anthoxanthum odoratum	Rytidosperma racemosum	
Glyceria declinata	Cynosurus echinatus } collected	
Hordeum geniculatum	Phleum pratense } out of	
H. glaucum		the gully

FRONTICEPIECE

John Thompson

The fronticepiece, drawn by Cecil Dunn, is of Eleocharis gracilis, a member of the Cyperaceae. It is a wet lands plant reaching some 15cms tall, usually less, in Canterbury. Its name derives from the Greek helos, swamp and kharis, grace or charm, equalling "The charm of the swamp" or "swamp ornament".

The creeping rhizome is stout and is ensheathed at each node . by a large dark red bract. Its culms are erect or curved and its inflorescence, not always present, is solitary and terminal.

It can be confused with two other species of Eleocharis. E. acuta is the most common dweller of Canterbury wet places. It can