

## FIELD TRIP TO THE PLOT ROAD WETLAND AND WHIRINAKI BOG, SOUTHERN KAINGAROA

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In February 1999 a good sized group of enthusiastic botanists gathered to explore two wetlands in the southern end of the Kaingaroa Forest.

### Plot Road Wetland

The first wetland we visited was a relatively large diverse wetland near Plot Road surrounded by plantation pines. This wetland is one of the better quality natural areas remaining in the Kaingaroa Ecological District (cf. Beadel and Bishop 1996). It contains a diverse array of wetland vegetation types and a small population of a threatened plant species and has been ranked as being of exceptional botanical conservation value.

*Baumea rubiginosa* and *Lepidosperma australe* form the main cover over more than half of the wetland, these species forming mono-dominant stands and mixed sedgeland. Other species present locally include *Rytidosperma gracile*, *Eleocharis gracilis*, *Carpha alpina*, *Deyeuxia quadriseta*, *Gonocarpus aggregatus*, *Carex echinata*, *Viola cunninghamii*, and *Baumea tenax*. A few plants of *Prasophyllum* sp. aff. *patens* and *P. colensoi* are present.

Near the centre of the wetland there is a narrow channel of open water and some larger pools; *Eleocharis sphacelata* reedland occurs locally in these areas. Other species present in the pools include *Schoenus fluitans*, *Juncus articulatus*, and *Nitella* sp.

A small dense sward of *Tetraria capillaris* is present on the western side of the wetland. Nearby are several small boggy ponds with *Carpha alpina*, *Myriophyllum pedunculatum*, *Carex echinata*, *Viola cunninghamii*, *Utricularia monanthos*, *Celmisia gracilentia*, *Gonocarpus micranthus*, and *Lachnagrostis* sp.

(Monoao)/*Lepidosperma australe*/*Gleichenia dicarpa*/*Sphagnum cristatum* fernland is also a dominant feature forming a marginal band around the wetland, with local monoao (*Dracophyllum subulatum*), *Carex echinata*, manuka (*Leptospermum scoparium*) and *Isolepis crassiuscula*. Small pools of water are a feature of this vegetation type. *Myriophyllum pedunculatum*, *Carpha alpina*, and *Sphagnum cristatum* are common around the margins of these ponds with scattered *Deyouxia quadriseta*, *Pratia angulata*, and local *Isolepis crassiuscula*, *Viola cunninghamii*, and *Ranunculus amphitrichus*.

Also on the margins there are local patches of monoao/*Gleichenia dicarpa*-*Lepidosperma australe* fernland with scattered manuka, *Coprosma* sp. (unnamed; species “t” of Eagle 1982), *Coprosma cheesemani*, *Sphagnum cristatum*, and browntop (*Agrostis capillaris*). Other species present include toetoe (*Cortaderia fulvida*), *Rytidosperma gracile*, *Carex echinata*, *Celmisia gracilentia* and local *Carpha alpina*.

There are local examples of *Carpha alpina*-*Oreobolus pectinatus*/*Myriophyllum pedunculatum*-*Utricularia monanthus* sedgeland. *Celmisia gracilentia*, *Deyouxia quadriseta*, *Gonocarpus aggregatus*, *Ranunculus amphitrichus*, *Sphagnum cristatum*, and *Juncus planifolius* are present in this vegetation type.

Vegetation along the stream at the outlet of the wetland comprises toetoe-karetu (*Hierochloa redolens*)-browntop grassland with local monoao, *Carex secta*, *Juncus effusus*, and *Carex geminata*.

Seventy-six indigenous species and 51 adventive species have been recorded from this wetland. These are listed in Appendix 1. One threatened species, *Prasophyllum* sp. aff. *patens* (classed as vulnerable in Cameron *et al.* 1995) occurs in the wetland. This species is known from only one other site in the Ecological District, Whirinaki Bog, which we visited in the afternoon. Two species are not known from any other site in the ecological district, *Tetraria capillaris* and *Schoenus fluitans*. Two species are present which

are uncommon in the Kaingaroa Ecological District, *Utricularia monanthus* and *Isolepis crassiuscula*.

Common introduced frogs were heard calling and were seen and many tadpoles were observed, much to the delight of the younger members of the expedition. Fernbird were heard calling in the wetland. Several small contorta (*Pinus contorta*) were present at one site on the margins of the wetland and a few grey willow (*Salix cinerea*) are present. The contorta and willows should be removed before they become a more substantial problem.

### Whirinaki Bog

Most of the day was spent in the Plot Road wetland, however later in the afternoon we made our way to the Whirinaki Bog, a conservation covenant administered by the Department of Conservation, for a brief inspection of the population of *Prasophyllum* sp. aff. *patens*. A small study of population numbers and flowering *Prasophyllum* sp. aff. *patens* is currently being undertaken at this site (Beadel 1996). Two species present at this site, *Utricularia monanthus* and *Isolepis crassiuscula*, are uncommon in the Kaingaroa Ecological District.

Wetland vegetation includes monoao scrub, *Baumea teretifolia* sedgeland, monoao- (*Lepidosperma australe*)/*Gleichenia dicarpa* fernland, *Gleichenia dicarpa* fernland (with scattered monoao), and monoao-manuka-*Coprosma* sp. (unnamed; species "t" of Eagle 1982)/*Lepidosperma australe*-*Gleichenia dicarpa*/*Sphagnum cristatum* shrubland. A species list for this wetland is attached (see Appendix 2; from Beadel 1995 and 1996 with additions recorded in 1999).

## REFERENCES

- Beadel S.M. 1995: Vegetation and flora of lands administered by Bay of Plenty Conservancy. Department of Conservation, Rotorua. *Wildland Consultants Ltd Contract Report No. 130*. 556 pp.
- Beadel S.M. 1996: Field inspection. Threatened and local plants. Te Ikawhenua Field Centre. *Wildland Consultants Ltd Contract Report No. 145*. 10 pp.
- Beadel S.M. and Bishop C. 1996: Wetland and streamside survey of Forestry Corporation Bay of Plenty forests. *Wildland Consultants Ltd Contract Report No. 156*. 153 pp.
- Cameron E.K.; de Lange P.J.; Given D.R.; Johnson P.N. and Ogle C.C. 1995: New Zealand Botanical Society. New Zealand threatened and local plant lists. *New Zealand Botanical Society Newsletter 39*: 15-28.
- Eagle A. 1982: Eagle's trees and shrubs of New Zealand. Second series. William Collins Publishers Ltd, Auckland.

## VASCULAR PLANTS OF THE PLOT ROAD WETLAND

(Grid Reference NZMS260 V18 190627)

S.M. Beadel 1996, with additions made in 1999

### Indigenous Species

#### Dicot. trees and shrubs

<i>Carmichaelia australis</i>	makaka
<i>Coprosma cheesemanii</i>	
<i>Coprosma</i> sp. (unnamed; species "t" of Eagle 1982)	
<i>Cyathodes empetrifolia</i>	
<i>Dracophyllum subulatum</i>	monoao
<i>Kunzea ericoides</i> var. <i>ericoides</i>	kanuka
<i>Leptospermum scoparium</i>	manuka
<i>Ozothamnus leptophylla</i>	tauhinu

#### Dicot. lianes

*Muehlenbeckia axillaris*

#### Ferns

<i>Blechnum novaezealandiae</i> s.s.	kiokio
<i>Blechnum novaezealandiae</i> (wetland form; <i>B. minus</i> of N.Z. authors)	kiokio
<i>Blechnum penna-marina</i> subsp. <i>alpina</i>	
<i>Dicksonia fibrosa</i>	wheki-ponga
<i>Gleichenia dicarpa</i>	

## Orchids

<i>Microtis unifolia</i>	maikaika
<i>Prasophyllum colensoi</i>	
<i>Prasophyllum</i> sp. aff. <i>patens</i>	
<i>Thelymitra cyanea</i>	

## Grasses

<i>Cortaderia fulvida</i>	toetoe
<i>Deyeuxia quadriseta</i>	
<i>Hierochloa redolens</i>	karetu
<i>Lachnagrostis</i> sp.	
<i>Rytidosperma gracile</i>	

## Sedges

<i>Baumea rubiginosa</i>	
<i>Baumea tenax</i>	
<i>Carex dipsacea</i>	
<i>Carex echinata</i>	
<i>Carex secta</i>	purei
<i>Carex</i> sp. ( <i>C. geminata</i> agg.)	rautahi
<i>Carpha alpina</i>	
<i>Eleocharis gracilis</i>	
<i>Eleocharis sphacelata</i>	
<i>Isolepis crassiuscula</i>	
<i>Lepidosperma australe</i>	
<i>Oreobolus pectinatus</i>	comb sedge
<i>Schoenus fluitans</i>	
<i>Schoenus maschalinnus</i>	

## Rushes

*Juncus gregiflorus* wi

*Juncus planifolius*

## Monocot. herbs (other than orchids, grasses, sedges and rushes)

*Potamogeton cheesemani*

## Composite herbs

*Celmisia gracilentia* var. pekapeka

*Gnaphalium audax*

*Gnaphalium delicatum*

## Dicot. herbs (other than composites)

*Acaena anserinifolia* piripiri

*Dichondra* sp. (unnamed; aff. *D. brevifolia*)

*Drosera binata*

*Drosera spathulata*

*Epilobium alsinoides* s.s.

*Geranium potentilloides* var. *potentilloides*

*Gonocarpus aggregatus*

*Gonocarpus micranthus* subsp. *micranthus*

*Hydrocotyle sulcata*

*Hypericum japonicum*

*Myriophyllum pedunculare* subsp. *novae-zelandiae*

*Nertera scapanioides*

*Pratia angulata* panakenake

*Ranunculus amphitrichus* kawariki

*Ranunculus reflexus* maruru

*Urticularia monanthus* ongaonga

*Urticularia monanthos* (incl. *U. novae-zelandiae*)

## Viola cunninghamii

### Mosses

*Sphagnum cristatum*

### **Adventive Species**

#### Gymnosperms

*Pinus contorta* lodgepole pine

*Pinus radiata* radiata pine

#### Dicot. trees and shrubs

*Salix cinerea* grey willow

#### Grasses

*Agrostis capillaris* browntop

*Holcus lanatus* Yorkshire fog

#### Rushes

*Juncus acuminatus*

*Juncus articulatus*

*Juncus effusus* rush

#### Composite herbs

*Crepis capillaris* hawksear

*Hieracium pilosella* mouse-ear hawkweed

*Hypochoeris radicata* catsear

*Senecio jacobaea* ragwort

*Taraxacum officinale*

dandelion

Dicot. herbs (other than composites)

*Lotus pedunculatus*

lotus

## INDIGENOUS PLANT SPECIES OF THE WHIRINAKI BOG

(Grid Reference NZMS260 V18 238580)

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(additions made in 1996 & 1999)

### Gymnosperm trees and shrubs

*Halocarpus bidwillii* bog pine

### Dicot. trees and shrubs

*Coprosma cheesemanii*

*Coprosma* sp. (unnamed; species “t” of Eagle 1982)

*Cyathodes empetrifolia*

*Dracophyllum subulatum* monoao

*Gaultheria depressa*

*Hebe* sp. (*H. parviflora* agg.)

*Leptospermum scoparium* manuka

*Olearia solandri*

*Pimelea prostrata*

### Ferns

*Blechnum minus*

*Blechnum penna-marina*

*Gleichenia dicarpa*

### Orchids

*Prasophyllum* sp. aff. *patens*

*Thelymitra cyanea*

### Grasses

<i>Cortaderia fulvida</i>	toetoe
<i>Deyeuxia quadriseta</i>	
<i>Hierochloe redolens</i>	karetu, holy grass
<i>Lachnagrostis filiformis</i>	
<i>Poa cita</i>	silver tussock
<i>Rytidosperma gracile</i>	

### Rushes

*Juncus gregiflorus*  
*Luzula decipiens*

### Sedges

*Baumea teretifolia*  
*Carex dipsacea*  
*Carex echinata*  
*Carex secta*  
*Carpha alpina*  
*Eleocharis acuta*  
*Eleocharis gracilis*  
*Eleocharis sphacelata*  
*Isolepis crassiuscula*  
*Lepidosperma australe*  
*Oreobolus pectinatus*  
*Schoenus maschalinus*  
*Uncinia rubra*

Monocot herbs (other than orchids, grasses, sedges and rushes)

*Herpolirion novae-zelandiae*

Composite herbs

*Celmisia gracilentia*

*Gnaphalium audax*

*Helichrysum filicaule*

*Microseris scapigera*

Dicot herbs (other than composites)

*Drosera binata*

*Drosera spatulata*

*Geranium potentilloides*

*Gonocarpus micranthus*

*Myriophyllum pedunculatum* subsp. *novae-zelandae*

*Nertera scapanioides*

*Oreomyrrhis ramosa*

*Ranunculus glabrifolius*

*Utricularia monanthos* (incl. *U. novae-zelandiae*)

*Viola cunninghamii*