

LAKE ROTOITI EXCURSION

Sarah M. Beadel & William B. Shaw

A small group of eight people met at the boat ramp at Otaramarae on 2 November 2002 to explore several natural areas along the northern shoreline of Lake Rotoiti.

We travelled down the lake in two boats, stopping first at Honeymoon Bay, a small sheltered bay with a jetty. Unfortunately several environmental weeds are present near the jetty - tradescantia (*Tradescantia fluminensis*), montbretia (*Crocasmia × crocosmiiflora*), and artillery plant (*Galeobdolum luteum*). A notable feature of the bay are the large pohutukawa on a small headland. Other species present included mingimingi (*Leucopogon fasciculatus*), *Isolepis nodosa*, *Earina mucronata*, *Morelotia affinis*, *Astelia solandri*, *Poa anceps*, and *Metrosideros fulgens*.

We then proceeded to the eastern side of the Lake Te Hapua wetland which is a large wetland adjoining Lake Rotoiti with an extensive area of wetland vegetation and a large area of open water. Many water birds were seen here. The following vegetation types are present in the wetland:

- manuka shrubland
- manuka-swamp coprosma/*Gleichenia dicarpa*-wire rush shrubland
- raupo reedland

Eleocharis sphacelata, raupo (*Typha orientalis*), *Schoenoplectus tabernaemontani*, and *Baumea arthropphylla* form local reedlands along the lake margins.

Once in the wetland there were many interesting species to be seen, including five species of *Baumea* (*B. articulata*, *B. arthropphylla*, *B. rubiginosa*, *B. tenax*, and *B. teretifolia*).

Dense mounds of wire rush (*Empodisma minus*) made progress slow, however we eventually made our way to the small population of *Epacris pauciflora* near the lake margin. The wetland is the only known population of wire rush in the Rotorua Lakes Ecological District, and *Epacris pauciflora* is only known from only one other site in the district. Along the western side of the wetland we were also able to see burr-reed (*Sparganium subglobosum*), *Gratiola sexdentata*, *Hypericum japonicum*, *Myriophyllum propinquum*, *Glossostigma elatinooides*, and *Drosera binata*.

The vegetation on the south-eastern side of the wetland was in very good condition, but it is obvious that stock have access to the western margin and the northern end. The owners are apparently arranging for the entire wetland to be fenced.

A species list for the wetland is attached.

After lunch we motored slowly back along the northern lakeshore, stopping at a recent (1-2 years old) south-facing landslide scar to search for *Rorippa divaricata* (classed as “Acutely Threatened - nationally endangered” in the 2002 threatened plant list). Paul Cashmore and John Hobbs quickly spotted a new population growing amongst exotic grasses and herbs, including Yorkshire fog (*Holcus lanatus*), foxglove (*Digitalis purpurea*), Australian fireweed (*Senecio bipinnatisectus*), and Scotch thistle (*Cirsium vulgare*). Also present were kiokio (*Blechnum novae-zelandiae*), *Luzula picta*, and young plants of koromiko (*Hebe stricta*), karamu (*Coprosma robusta*), and makomako (*Aristotelia serrata*). This find of 13 plants greatly increased the previously known population of eight *R. divaricata* plants around Lake Rotoiti (P. Cashmore & J. Hobbs pers. comm.). These two first found *R. divaricata* around Lake Rotoiti in 1999 and have been keeping a regular lookout for the species since then, along with other known sites for *R. divaricata* in the Bay of Plenty - Lake Okataina, Tikitapu (Blue Lake), and Otawa near Te Puke. It is also present on Mokoia, where it has been planted in recent years by DOC. I recently (December 2002) saw it flowering on the island, alongside one of the tracks. A natural population of

R. divaricata was found on the island during a botanical society trip in 1990 (Beadel 1990), but has not been seen since.

We then went for a quick walk around the maire tawake (*Syzygium maire*) stand in Te Arero Bay. This is the largest stand of maire tawake in the ecological district. Tawa (*Beilschmiedia tawa*) and kiekie (*Freycinetia baueriana* subsp. *banksii*) are also present in the stand, which is next to a raupo wetland. This area is currently grazed.

As we motored back down the bay we noticed that there were still eight stalks of giant reed (*Arundo donax*) present in part of the Lake Rotoiti Scenic Reserve on the Te Arero Bay Peninsula.

Both the Lake Te Hapua Wetland and the Te Arero Bay Wetland were identified as recommended areas for protection in the Rotorua Lakes Ecological District PNAP survey (Beadel *et al.* 1998).

Once back at the boat ramp there were still more botanical delights to see, with several large mistletoe (*Ileostylus micranthus*) in the grey willow behind the boat sheds.

ACKNOWLEDGMENTS

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REFERENCES

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- Beadel S.M.; Shaw W.B. and Nicholls J.L. 1998: Rotorua Lakes Ecological District - natural area survey. *Wildland Consultants Ltd Contract Report No. 175*. 551 pp.
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VASCULAR PLANTS OF THE LAKE TE HAPUA WETLAND

(Based on Inspections in March 1992 (S.M. Beadel & W.B. Shaw),
April 1993 (SMB), and November 2002 (SMB & Rotorua Botanical Society))

Indigenous Species

Gymnosperms

Dacrycarpus dacrydioides kahikatea
Dacrydium cupressinum rimu

Monocot. trees and shrubs

Cordyline australis ti kouka

Dicot. trees and shrubs

Coprosma robusta karamu
Coprosma tenuicaulis hukihuki
Coriaria arborea var. *arborea* tutu
Epacris pauciflora
Leptospermum scoparium manuka
Leucopogon fasciculatus mingimingi
Macropiper excelsum var. *excelsum* kawakawa
Meliccytus ramiflorus subsp. *ramiflorus* mahoe
Pittosporum tenuifolium subsp. *colensoi* rautawhiri
Pseudopanax arboreus var. *arboreus* whauwhaupaku, fivefinger
Schefflera digitata pate
Weinmannia racemosa kamahi

Ferns

Blechnum novae-zelandiae (wetland form; *B. minus* of NZ authors) swamp kiokio
Dicksonia squarrosa wheki
Gleichenia dicarpa
Histiopteris incisa matata
Microsorium pustulatum kowaowao (hounds tongue fern)
Paesia scaberula matata
Pteridium esculentum rarahu (bracken)
Pyrrosia eleagnifolia leather-leaf fern

Orchids

Microtis unifolia maikaika
Thelymitra sp.

Grasses

Isachne globosa swamp millet

Sedges

Baumea articulata
Baumea arthropphylla
Baumea rubiginosa
Baumea tenax
Baumea teretifolia
Carex dipsacea
Carex geminata
Carex secta purei
Carex virgata purei
Cyperus ustulatus toetoe upokotangata
Eleocharis acuta
Eleocharis sphacelata
Empodisma minus wire rush
Schoenus maschalinus

Rushes

Juncus planifolius
Juncus prismatocarpus
Luzula picta var. *picta*

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

Potamogeton cheesemani
Sparganium subglobosum maru, burr reed
Typha orientalis raupo

Composite herbs

Euchiton sphaericum

Dicot. herbs (other than composites)

<i>Centella uniflora</i>	
<i>Drosera binata</i>	
<i>Glossostigma elatinooides</i>	
<i>Gonocarpus micranthus</i> subsp. <i>micranthus</i>	
<i>Gratiola sexdentata</i>	
<i>Hydrocotyle novae-zeelandiae</i>	
<i>Hydrocotyle pterocarpa</i>	
<i>Hypericum japonicum</i>	
<i>Myriophyllum propinquum</i>	
<i>Persicaria decipiens</i>	
<i>Pratia angulata</i>	panakenake
<i>Ranunculus amphitrichus</i>	kawariki

Adventive Species

Dicot. trees and shrubs

<i>Erica lusitanica</i>	Spanish heath
<i>Rosa rubiginosa</i>	sweet brier
<i>Rubus</i> sp. (<i>R. fruticosus</i> agg.)	blackberry
<i>Salix cinerea</i>	grey willow
<i>Salix fragilis</i>	crack willow
<i>Ulex europaeus</i>	gorse

Grasses

<i>Agrostis capillaris</i>	browntop
<i>Eragrostis brownii</i>	bay grass
<i>Holcus lanatus</i>	Yorkshire fog
<i>Paspalum dilatatum</i>	paspalum

Rushes

<i>Juncus acuminatus</i>	sharp-fruited rush
<i>Juncus articulatus</i>	
<i>Juncus effusus</i>	soft rush
<i>Juncus tenuis</i>	track rush

Composite herbs

<i>Bidens frondosa</i>	beggars' ticks
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Dicot. herbs (other than composites)

Lotus pedunculatus

lotus

Ludwigia palustris

water purslane

Polygonum persicaria

willow weed

Prunella vulgaris

selfheal

Ranunculus flammula

spearwort

Mosses

Sphagnum cristatum

Sphagnum falcatum