

## **GALAXY ROAD NORTH BLOCK, FOREST AND WETLAND TRIP**

Paul Cashmore

On Sunday 10 March 2013 five members of the Rotorua and the Waikato Botanical Societies met up at the intersection of Galaxy Rd and SH 5 on the Mamaku Plateau to botanise the Galaxy Rd North block. This block was until recently a research block owned by the Forest Research Institute (FRI) (now Scion). It was put up for sale and purchased by the Nature Heritage Fund as a public reserve now managed by the Department of Conservation. The block traverses both sides of Galaxy Rd. The western part of the reserve comprises a radiata pine plantation, tawa dominated forest along SH 5 margin and a mix of other exotic plantation trials. The eastern side is indigenous vegetation with a large wetland and surrounding indigenous forest. The indigenous forest would have been historically logged for podocarps and has been used extensively in the past by FRI to trial different planting methods for establishing indigenous podocarps in cutover forest. Many of these trials are easily seen amongst the indigenous forest bordering SH 5 and the wetland area and are now well established trees.

We entered the forest off Galaxy Rd and were immediately impressed by the density of the understorey in the (rimu)/tawa forest which dominates the southern wetland margin bordering SH 5. Tawari (*Ixerba brexioides*), miro (*Prumnopitys ferruginea*) and kamahi (*Weinmannia racemosa*) dominated the subcanopy. The understorey comprised largely tawari, toropapa (*Alseuosmia macrophylla*), heruheru (*Leptopteris heterophylla*), horopito (*Pseudowintera colorata*), katote (*Cyathea smithii*), Raukahu (*Raukahu anomalus*), crown fern (*Blechnum discolor*), miro, *Pseudowintera axillaris* and *Astelia fragrans*. Traversing the area in a westerly direction we came across many forest covered 'tors' typical of the Mamaku Plateau. We also came across some of the FRI plantings of podocarps undertaken in this block in the 1970s and '80s – some healthy stands of totara (*Podocarpus totara*) and kahikatea (*Dacrycarpus dacrydioides*) were noted.

Eventually we reached the eastern boundary of the reserve and followed the boundary track known as 'Barnicotts Road' north into the wetland proper stopping on the way to

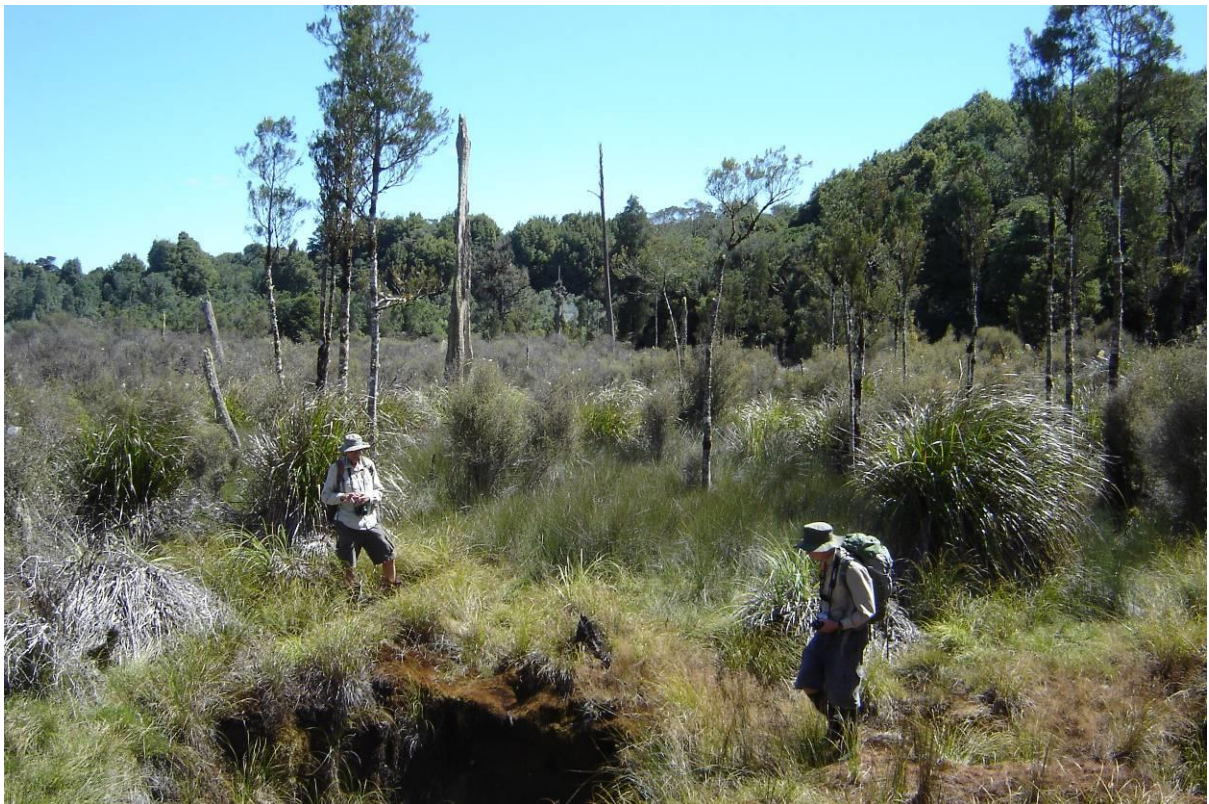
note some sinkholes or ‘tomos’ – another characteristic of much of the Mamaku Plateau. We pushed into the wetland which has rather homogenous vegetation throughout. It is comprised of a tight manuka-monoao scrub canopy with local *Coprosma dumosa* over an understorey of tangle fern (*Gleichenia dicarpa*) and *Astelia grandis* with *Sphagnum cristatum*. *Coprosma tenuicaulis* was occasional throughout. Toetoe (*Cortaderia fulvida*) was local with lancewood (*Pseudopanax crassifolius*) common around the edges. Fernbirds were commonly heard in the wetland which was a good sign. As the going was rather slow through the wetland and few new species were being noted we headed to the north-east into the surrounding forest where going was easier. The forest in this corner of the reserve is completely different to that in the south bordering SH 5, in that here it is dominated by large hard beech (*Nothofagus truncata*) over a subcanopy of tawari with occasional toatoa (*Phyllocladus toatoa*), rimu (*Dacrydium cupressinum*) and tawa (*Beilschmiedia tawa*). The understorey here is dominated by tawa, Hall’s totara (*Podocarpus hallii*), tawari, miro and *Pseudowintera axillaris* with a groundcover of crown fern, *Astelia grandis*, *Astelia solandri*, tawari and *Hymenophyllum demissum*.

Walking through the forest allowed us to move more quickly to reach our intended lunch spot in the NE corner of the block – a rhyolite ‘tor’ which provides a superb view west across the wetland towards Galaxy Rd (Figure 1) from where we spotted *Gabnia rigida* – a species close to its northern limit at this site. The discovery of *Gabnia rigida* at this site was noted by Stewart Wallace (Wallace, 1986).

After lunch we headed back into the wetland in a westerly direction before once again skirting around it through the forest edge until we reached the western end of the wetland where the vegetation changed. Here it was more open with areas of *Juncus bulbosus* rushland with spearwort (*Ranunculus flammula*) throughout with local *Eleocharis sphacelata* and *E. acuta*. We searched for and found two royal fern (*Osmunda regalis*)



Martin Pearce admiring the manuka-monoao dominated wetland



Botanists checking out another large sinkhole in the wetland.

plants here which were removed along with some grey willow (*Salix cinerea*) saplings. Scattered small kahikatea (*Dacrycarpus dacrydioides*) trees were present throughout this area.

Amongst the kahikatea we made the most significant discovery of the day – a population of burr reed (*Sparganium subglobosum*) which, to my knowledge, was not known from this site. A large number of plants were present and in seed.

As we were in the middle of an exceptionally dry summer this made it very easy to traverse the wetland, particularly the western end which normally has standing water throughout and has probably been rarely traversed by botanists because water levels are normally quite high. For this trip we were able to traverse the entire wetland throughout without getting wet (or even muddy) feet. At the western end we reached the ‘pond’ on the edge of Galaxy Rd North. With the summer drought the water level in the pond was the lowest I have seen it but still enough for the population of Cape pondweed (*Aponogeton distachyus*) to survive. At this point with all the vegetation smothered in a thick layer of dust from Galaxy Rd we decided it was time to finish up. We pushed through some more manuka scrub and blackberry onto the edge of Galaxy Rd and followed this back to the vehicles.

A very good day was had by all and despite the hot sun we decided it was definitely the best time to visit wetland sites like this and were fortunate that the water levels were so exceptionally low allowing us to traverse the entire wetland, without which we probably wouldn’t have found the burr reed.

**Reference:**

Wallace, S. 1986. A new northern limit for *Gabnia rigida*. *Rotorua Botanical Society Newsletter* 7: 12-13.

**VASCULAR PLANT SPECIES LIST FOR GALAXY ROAD NORTH BLOCK  
(EAST OF GALAXY RD),  
NORTHERN MAMAKU PLATEAU**

Kerry Jones

\* = naturalised species

**Ferns and Fern Allies**

|                                     |                                    |
|-------------------------------------|------------------------------------|
| <i>Asplenium bulbiferum</i>         | mouku, hen and chicken fern        |
| <i>Asplenium flaccidum</i>          | makawe                             |
| <i>Asplenium polyodon</i>           | petako                             |
| <i>Blechnum discolor</i>            | petipeti, crown fern               |
| <i>Blechnum fluviatile</i>          | kiwikiwi                           |
| <i>Blechnum novae-zelandiae</i>     | kiokio                             |
| <i>Cyathea dealbata</i>             | silver fern                        |
| <i>Cyathea smithii</i>              | katote, soft tree fern             |
| <i>Dicksonia fibrosa</i>            | wheki-ponga                        |
| <i>Dicksonia squarrosa</i>          | wheki                              |
| <i>Gleichenia dicarpa</i>           | tangle fern                        |
| <i>Hymenophyllum demissum</i>       | iriangi, filmy fern                |
| <i>Hymenophyllum dilatatum</i>      | matua mauku, filmy fern            |
| <i>Hymenophyllum flabellatum</i>    | makau, filmy fern                  |
| <i>Hymenophyllum frankliniae</i>    | makau, filmy fern                  |
| <i>Hymenophyllum sanguinolentum</i> | piripiri, filmy fern               |
| <i>Huperzia varia</i>               | Whiri-o-Raukatauri                 |
| <i>Leptopteris hymenophylloides</i> | heruheru                           |
| <i>Leptopteris superba</i>          | heruheru, Prince of Wales feathers |
| <i>Lindsaea trichomanoides</i>      |                                    |
| <i>Lycopodium scariosum</i>         | matukutuku                         |
| <i>Lycopodium volubile</i>          | waewaekoukou                       |
| <i>Microsorium pustulatum</i>       | kowaowao, hounds tongue fern       |
| <i>Notogrammitis heterophylla</i>   |                                    |
| <i>Osmunda regalis</i>              | royal fern                         |
| <i>Polystichum vestitum</i>         | puniu, prickly shield fern         |
| <i>Pteridium esculentum</i>         | rarahu, bracken                    |
| <i>Pyrrhosia eleagnifolia</i>       | leather-leaf fern                  |
| <i>Rumohra adiantiformis</i>        |                                    |
| <i>Tmesipteris elongata</i>         |                                    |
| <i>Tmesipteris tannensis</i>        |                                    |
| <i>Trichomanes venosum</i>          |                                    |

## Gymnosperms

|                                    |                          |
|------------------------------------|--------------------------|
| <i>Dacrydium cupressinum</i>       | rimu                     |
| <i>Dacrycarpus dacrydioides</i>    | kahikatea (some planted) |
| <i>Phyllocladus toatoa</i>         | toatoa                   |
| <i>Phyllocladus trichomanoides</i> | tanekaha                 |
| <i>Podocarpus totara</i>           | totara                   |
| <i>Prumnopitys ferruginea</i>      | miro                     |
| <i>Prumnopitys taxifolia</i>       | matai                    |

## Dicotyledons Trees and Shrubs

|                                 |                           |
|---------------------------------|---------------------------|
| <i>Alseuosmia macrophylla</i>   | toropapa                  |
| <i>Aristotelia serrata</i>      | makomako, wineberry       |
| <i>Beilschmiedia tawa</i>       | tawa                      |
| <i>Carpodetus serratus</i>      | putaputaweta, marble leaf |
| <i>Coprosma grandifolia</i>     | kanono                    |
| <i>Coprosma dumosa</i>          |                           |
| <i>Coprosma lucida</i>          | karamu                    |
| <i>Coprosma tenuicaulis</i>     | hukihuki, swamp coprosma  |
| <i>Dracophyllum subulatum</i>   | monoao                    |
| <i>Elaeocarpus hookerianus</i>  | pokaka                    |
| <i>Erica lusitanica</i>         | Spanish heath             |
| <i>Gaultheria antipoda</i>      | tawiniwini                |
| <i>Griselinia littoralis</i>    | kapuka                    |
| <i>Ixerba brexioides</i>        | tawari                    |
| <i>Leptospermum scoparium</i>   | manuka                    |
| <i>Leucopogon fasciculatus</i>  | mingimingi                |
| <i>Litsea calicaris</i>         | mangeao                   |
| <i>Melicope simplex</i>         | poataniwha                |
| <i>Melicytus ramiflorus</i>     | mahoe                     |
| <i>Myrsine salicina</i>         | toro                      |
| <i>Nestegis montana</i>         | roro, narrow leaved maire |
| <i>Pseudopanax arboreus</i>     | whauwhaupaku, five finger |
| <i>Pseudopanax crassifolius</i> | horoeka, lancewood        |
| <i>Pseudowintera colorata</i>   | horopito                  |
| <i>Pseudowintera axillaris</i>  |                           |
| <i>Raukawa anomalus</i>         |                           |
| <i>Raukawa edgerleyi</i>        | raukawa                   |
| <i>Salix cinerea</i>            | grey willow               |
| <i>Schefflera digitata</i>      | pate                      |
| <i>Weinmannia racemosa</i>      | kamahi                    |

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

|                                  |                 |
|----------------------------------|-----------------|
| <i>Astelia grandis</i>           | mauri           |
| <i>Astelia nervosa</i>           |                 |
| <i>Astelia solandri</i>          | kowharawhara    |
| <i>Collospermum microspermum</i> |                 |
| <i>Dianella nigra</i>            | turutu          |
| <i>Sparganium subglobosum</i>    | maru, burr-reed |

## Dicot Herbs

|                                |                 |
|--------------------------------|-----------------|
| * <i>Aponogeton distachyus</i> | cape pond weed  |
| <i>Lobelia angulata</i>        | panakenake      |
| * <i>Lotus pedunculatus</i>    | lotus           |
| <i>Nertera depressa</i>        |                 |
| * <i>Potentilla indica</i>     | wild strawberry |
| * <i>Ranunculus flammula</i>   | spearwort       |

## Dicot Lianes

|                                |                        |
|--------------------------------|------------------------|
| <i>Clematis paniculata</i>     | puawananga             |
| <i>Metrosideros diffusa</i>    | rata                   |
| <i>Metrosideros fulgens</i>    | rata                   |
| <i>Rubus australis</i>         | tataramoa, bush lawyer |
| <i>Rubus cissoides</i>         | tataramoa              |
| * <i>Rubus fruticosus</i> agg. | blackberry             |

## Monocot Trees, Shrubs and Lianes

|                            |              |
|----------------------------|--------------|
| <i>Cordyline australis</i> | cabbage tree |
| <i>Ripogonum scandens</i>  | supple jack  |

## Orchids

|                            |             |
|----------------------------|-------------|
| <i>Earina autumnalis</i>   | raupeka     |
| <i>Earina mucronata</i>    | peka-a-waka |
| <i>Winika cunninghamii</i> |             |

## Sedges

|                               |                        |
|-------------------------------|------------------------|
| * <i>Carex demissa</i>        | yellow sedge           |
| <i>Carex dipsacea</i>         |                        |
| <i>Eleocharis acuta</i>       | spike sedge            |
| <i>Eleocharis sphacelata</i>  | kuta, tall spike sedge |
| <i>Gabnia rigida</i>          | takahikahi             |
| <i>Gabnia xanthocarpa</i>     | tupari-maunga          |
| <i>Lepidosperma australe</i>  | square sedge           |
| <i>Machaerina rubiginosa</i>  |                        |
| <i>Machaerina tenax</i>       |                        |
| <i>Machaerina teretifolia</i> |                        |

## Rushes

\**Juncus acuminatus*

*Juncus planifolius*

\**Juncus bulbosus*

sharp fruited rush

bulbous rush

## Grasses

\**Agrostis capillaris*

\**Anthoxanthum odoratum*

*Cortaderia fulvida*

\**Holcus lanatus*

*Microlaena avenacea*

browntop

sweet vernal

toitoi

yorkshire fog

bush rice grass



flower



fruit

*Sparganium subglobosum*

Photos: John Hobbs