

# Field Trip to Omaha-Taniko Wetlands Scientific Reserve, Omaha, 21 November 2015

David Wilson

**Participants:** Jenny Andrew, Bruce Calvert, Brian Cumber, Neil Davies, Melanie Dixon, Frances Duff, Peter Hutton, Wendy John, Sandra Jones, Anna and Richard Mairs, John Millett, Mark Patterson, Viv Patterson, Dion Poe, Joshua Salter, Ian and Lydia Smith, Vijay Soma, Eleanor Vincent, Liz Walker, Alison Wesley, Mike Wilcox, David Wilson (leader), Phillip Wrigley, Maureen Young.

This 62 ha reserve beside the Whangateau Harbour at Omaha protects a vegetation association now rare in the Auckland region. Here, estuarine saltmarsh has a landward fringe of manuka (*Leptospermum scoparium*) forest and shrubland, with taller kahikatea (*Dacrycarpus dacrydioides*) forest immediately behind this. Dense vegetation, particularly on this saltmarsh-fringed western side, is an impediment to large-group botanising over much of the reserve. However, we were able to gain a good introduction to some of the plant communities in the reserve by approaching from the southern end, and making our way up the eastern side, until we had walked approximately halfway to the northern end. During this trip, 22 species were added to the species list compiled by the author from several previous visits (see Appendix).

A small area of kahikatea forest lies between the 8<sup>th</sup> and 9<sup>th</sup> holes of the Omaha Golf Course, and for the benefit of golfers and their carts, it is bisected by a timber boardwalk. This provided us with a convenient opportunity to view the forest interior. Kahikatea was the dominant tree, with pukatea (*Laurelia novae-zelandiae*) and nikau palms (*Rhopalostylis sapida*) also frequent. A dense understorey featured hangehange (*Geniostoma ligustrifolium*) and gahnia (*Gahnia xanthocarpa*). The abundance of gahnia, with its scabrid leaf edges, is one of the reasons why this forest is most comfortably viewed from a boardwalk. We also had our first opportunity to inspect swamp coprosma/hukihuki (*Coprosma tenuicaulis*), a wetland-dwelling shrub which is common in the reserve.

Leaving the golf course, we stepped off one of the tees, which was fringed by a lush growth of Chewing's fescue (*Festuca rubra*), and approached

the larger portion of the forest through a gate in the pest-proof fence. The likely effectiveness of this fence prompted some questions during the trip. It should be noted, however, that its purpose was to exclude only domestic pets, as mitigation for the effects of establishing the nearby Omaha South subdivision. As such, it was not designed to exclude smaller animals, such as possums, rodents and mustelids. These can therefore be expected to be present in the reserve, and would in any case be able to enter across the western, estuarine boundary where a fence capable of excluding them would be impractical to construct.

Much of the forest edge has a canopy of manuka, and we spent some time under such a canopy near the southern end of the reserve. Damp depressions here had a dense turf of dwarf bog rush (*Schoenus maschalinus*), through which grew taller *Isolepis prolifera* and *Eleocharis acuta*. The native buttercup *Ranunculus amphitrichus* grew here also (Fig. 1), and had a few flowers. Hairs under the flower receptacles, which are lacking in similar species, allowed us to confirm its identity. Other small plants here included *Nertera scapanioides*, *Centella uniflora*, *Lobelia anceps* and *Isolepis reticularis*. There were also tufts of taller *Machaerina* sedges (*M. juncea*, *M. tenax* and *M. teretifolia*). A sparse shrub layer consisted of juvenile cabbage trees (*Cordyline australis*) and small hangehange,



Fig. 1. *Ranunculus amphitrichus*, with flowers, Omaha-Taniko Wetlands Scientific Reserve, 29 Nov 2014. All photos by David Wilson.



Fig. 2. Field trip participants search for *Sphagnum* and other plants under a manuka canopy in the Omaha-Taniko Wetlands Scientific Reserve, 21 Nov 2015.



Fig. 3. A surprising find, *Blechnum penna-marina*, Omaha Taniko Wetlands Scientific Reserve, 21 Nov 2015.

red matipo (*Myrsine australis*), *Coprosma tenuicaulis* and mingimingi (*Leucopogon fasciculatus*).

An adjacent area had crowded trunks of small manuka, under which was some dense *Machaerina* sedge (including *M. arthrophylla*) and *Coprosma tenuicaulis* (Fig. 2). It was here that we found small patches of *Sphagnum* moss, amongst which we found *Nertera scapanioides*, *Centella uniflora* and *Hydrocotyle novae-zelandiae*. On leaving this area, we encountered a single tree of kanuka (*Kunzea robusta*) amongst the manuka.

On open ground towards the edge of the forest, we found a sun orchid (*Thelymitra*). The flowers were in bud, and by opening one for inspection, and noting also the purple stem with contrasting green leaf sheaths, we were able to identify it as *Thelymitra* aff. *pauciflora* "Darkie".

We then stepped out of the forest and progressed northward via the open, eastern portion of the reserve between the forest and the golf course. Here, sedges were abundant in places, the main species being *Machaerina rubiginosa*, *M. juncea* and *Eleocharis acuta* – the latter growing as much larger plants than the small tufts we had observed under the manuka canopy. Throughout, there were conspicuous tufts of umbrella sedge (*Cyperus ustulatus*), and also rushes (*Juncus* spp.). Of the dicots, the weedy creeping buttercup (*Ranunculus repens*) dominated some areas, and we also noted spearwort (*R. flammula*). Lotus (*Lotus pedunculatus*) was also conspicuously common. Perhaps most obvious was the native bindweed *Calystegia sepium* subsp. *roseatum*, scrambling over other plants nearly everywhere and bearing pink-striped flowers.

Grasses were abundant, particularly swamp millet (*Isachne globosa*), which covered large areas, and to a lesser extent, *Microlaena stipoides*, which grew thickly in areas which were perhaps better drained. Exotic grasses included sweet vernal (*Anthoxanthum odoratum*), Yorkshire fog (*Holcus lanatus*), tall fescue (*Schedonorus arundinaceus*), paspallum (*Paspallum dilatatum*), carpet grass (*Axonopus fissifolius*) and *Poa trivialis*. Some areas were covered by kikuyu (*Cenchrus clandestinus*), possibly invading from the edges of the golf course.

Shrubs of manuka also grew in this area, many of which were planted in recent years from seed

collected within the reserve, as a follow-up action to gorse (*Ulex europaeus*) control undertaken by the Department of Conservation. Native bees (*Leioproctus* sp.) were seen visiting manuka flowers during our visit. We passed a small patch of raupo (*Typha orientalis*), and some clubmoss (*Lycopodium cernuum*).

Josh and Vijay spotted an alpine hard fern (*Blechnum penna-marina*), growing as a single, small plant amongst grasses and weeds (Fig. 3). We considered this an unusual occurrence in this lowland, thickly-vegetated habitat. Other ferns noted hereabouts were hard fern (*Paesia scaberula*), *Blechnum novae-zelandiae*, *B. parrisiae* and a large patch of *Hypolepis ambigua*.

It was now that a gap in some dense gahnia allowed us to finally enter the kahikatea forest. None of the trunks were of significant girth, suggesting that the forest may be regenerating from the logging of larger trees some time in the past. While kahikatea dominated, pukatea and lancewood (*Pseudopanax crassifolius*) were frequent in the canopy and sub-canopy. Nikau and cabbage trees were also common, with occasional taraire (*Beilschmiedia tarairi*), puriri (*Vitex lucens*) and rimu (*Dacrydium cupressinum*). We also noted a single maire taika (*Mida salicifolia*) and white maire (*Nestegis lanceolata*).

In the understorey, hangehange and *Gahnia xanthocarpa* were predominant. Other plants noted included species of *Coprosma* (*C. spathulata*, *C. macrocarpa*, *C. rhamnoides* and *C. lucida*) as well as native broom (*Carmichaelia australis*) and marbleleaf (*Carpodetus serratus*). Red matipo and pigeonwood (*Hedycarya arborea*) were relatively infrequent, and were mostly small plants or seedlings.

Vines and epiphytes were abundant, especially kiekie (*Freycinetia banksii*), supplejack (*Ripogonum scandens*), tank lilly (*Astelia hastata*), *Metrosideros diffusa* and puka (*Griselinia lucida*). The fern *Blechnum filiforme* was abundant on tree trunks and on the ground. Common plants of the forest floor included *Oplismenus hirtellus*, *Nertera dichondrifolia* and *Hydrocotyle novae-zeelandiae*.

This tall, dark 'swamp forest' had an almost primeval appearance, in which it was easy to feel far-removed from Omaha's nearby housing developments and golf course. All too soon, it was time to exit the reserve via another gate, and take a short-cut across the golf course back to our vehicles.

Before leaving Omaha altogether, some of us stopped at the north end of the reserve, to brave deteriorating weather and view some stalked adder's tongue ferns (*Ophioglossum petiolatum*, Fig. 4). These were right at the forest edge, on the reserve boundary, with some even growing amongst the loose metal beside the road.



Fig. 4. *Ophioglossum petiolatum* beside the road, at the boundary of the Omaha-Taniko Wetlands Scientific Reserve, 14 Jan 2015.

## Appendix: Omaha-Taniko Wetland Scientific Reserve – vascular plants

Compiled by David Wilson during May-June 2014 and November 2015; ABS group visit 21 November 2015.

\* = exotics; ABS = additions recorded during ABS visit.

Ferns					
<i>Asplenium bulbiferum</i>		<i>Corynocarpus laevigatus</i>		<i>Taraxacum officinale*</i>	
<i>Asplenium flaccidum</i>		<i>Daucus carota*</i>		<i>Ulex europaeus*</i>	
<i>Asplenium oblongiferum</i>		<i>Dracophyllum lessoniana</i>		<i>Verbena bonariensis*</i>	
<i>Asplenium polyodon</i>		<i>Epilobium ciliatum*</i>		<i>Vitex lucens</i>	
<i>Blechnum filiforme</i>		<i>Euchiton sphaericus</i>			
<i>Blechnum minus</i>	ABS	<i>Fumaria muralis*</i>		Monocotyledons	
<i>Blechnum novaezelandiae</i>		<i>Galium aparine*</i>		<i>Anthoxanthum odoratum*</i>	
<i>Blechnum parrisiae</i>		<i>Galium propinquum</i>		<i>Apodasmia similis</i>	
<i>Blechnum penna-marina</i>	ABS	<i>Geniostoma ligustrifolium</i>		<i>Astelia hastata</i>	
<i>Cyathea dealbata</i>		<i>Griselinia lucida</i>		<i>Astelia solandri</i>	
<i>Cyathea medullaris</i>		<i>Hedycarya arborea</i>		<i>Axonopus fissifolius*</i>	
<i>Deparia petersenii</i>	ABS	<i>Hydrocotyle novae-zelandiae</i>		<i>Cenchrus clandestinus*</i>	
<i>Dicksonia squarrosa</i>		<i>Hypochoeris radicata*</i>		<i>Carex dissita</i>	
<i>Gleichenia microphylla</i>		<i>Knightia excelsa</i>		<i>Carex flagellifera</i>	ABS
<i>Histiopteris incisa</i>		<i>Kunzea robusta</i>	ABS	<i>Carex geminata</i>	ABS
<i>Hypolepis ambigua</i>	ABS	<i>Laurelia novaezelandiae</i>		<i>Carex lambertiana</i>	
<i>Lindsaea trichomanoides</i>		<i>Leptospermum scoparium</i>		<i>Carex lessoniana</i>	ABS
<i>Loxogramme dictyopteris</i>		<i>Leucopogon fasciculatus</i>		<i>Carex ochrosaccus</i>	ABS
<i>Lycopodium cernuum</i>	ABS	<i>Lobelia anceps</i>		<i>Carex testacea</i>	ABS
<i>Lygodium articulatum</i>		<i>Lotus pedunculatus*</i>		<i>Carex uncinata</i>	
<i>Microsorium pustulatum</i>		<i>Melicytus ramiflorus</i>		<i>Carex virgata</i>	
<i>Microsorium scandens</i>		<i>Metrosideros diffusa</i>	ABS	<i>Cordyline australis</i>	
<i>Ophioglossum petiolatum</i>		<i>Metrosideros perforata</i>		<i>Cortaderia selloana*</i>	
<i>Paesia scaberula</i>		<i>Mida salicifolia</i>	ABS	<i>Corybas cheesemanii</i>	
<i>Pneumatopteris pennigera</i>		<i>Muehlenbeckia complexa</i>		<i>Cyperus congestus*</i>	
<i>Pteridium esculentum</i>		<i>Myosotis laxa*</i>		<i>Cyperus ustulatus</i>	
<i>Pteris tremula</i>	ABS	<i>Myrsine australis</i>		<i>Dianella latissima</i>	
<i>Pyrrosia elaeagnifolia</i>		<i>Nertera dichondrifolia</i>		<i>Earina mucronata</i>	
		<i>Nertera scapaniodes</i>		<i>Eleocharis acuta</i>	
		<i>Nestegis lanceolata</i>	ABS	<i>Ficinia nodosa</i>	
		<i>Peperomia urvilleana</i>		<i>Freycinettia banksii</i>	
		<i>Persicaria punctata*</i>		<i>Gahnia xanthocarpa</i>	
		<i>Phytolacca octandra*</i>		<i>Holcus lanatus*</i>	
		<i>Pittosporum tenuifolium</i>		<i>Isachne globosa</i>	
		<i>Plagianthus divaricatus</i>		<i>Isolepis inundata</i>	
		<i>Plantago australis*</i>		<i>Isolepis reticularis</i>	ABS
		<i>Plantago lanceolata*</i>		<i>Isolepis prolifera</i>	ABS
		<i>Prunella vulgaris*</i>		<i>Juncus acuminatus*</i>	
		<i>Pseudopanax crassifolius</i>		<i>Juncus effusus*</i>	
		<i>Pseudopanax lessonii</i>		<i>Juncus kraussii</i>	
		<i>Ranunculus amphitrichus</i>		<i>Juncus pallidus</i>	
		<i>Ranunculus flammula*</i>		<i>Juncus planifolius</i>	
		<i>Ranunculus repens*</i>		<i>Juncus sarophorus</i>	
		<i>Rubus australis</i>		<i>Lepidosperma australe</i>	
		<i>Samolus repens</i>		<i>Luzula congesta*</i>	
		<i>Sarcocornia quinqueflora</i>		<i>Machaerina arthropphylla</i>	ABS
		<i>Senecio bipinnatisectus*</i>		<i>Machaerina articulata</i>	
		<i>Senecio esleri</i>		<i>Machaerina juncea</i>	
		<i>Senecio minimus</i>		<i>Machaerina rubiginosa</i>	
		<i>Solanum ?aviculare</i>		<i>Machaerina tenax</i>	
		<i>Solanum chenopodioides*</i>		<i>Machaerina teretifolia</i>	ABS
		<i>Solanum nodiflorum</i>		<i>Microlaena avenacea</i>	ABS
Gymnosperms					
<i>Dacrycarpus dacrydiodes</i>					
<i>Dacrydium cupressinum</i>					
<i>Phyllocladus trichomanoides</i>					
<i>Podocarpus totara</i>					
Dicotyledons					
<i>Avicennia marina</i>					
<i>Beilschmiedia tarairi</i>					
<i>Beilschmiedia tawa</i>					
<i>Calystegia sepium</i> subsp. <i>roseatum</i>					
<i>Carmichaelia australis</i>					
<i>Carpodetus serratus</i>					
<i>Centella uniflora</i>					
<i>Cirsium vulgare*</i>					
<i>Clematis paniculata</i>					
<i>Conyza sumatrensis*</i>					
<i>Coprosma macrocarpa</i>	ABS				
<i>Coprosma rhamnoides</i>					
<i>Coprosma robusta</i>					
<i>Coprosma spathulata</i>					
<i>Coprosma tenuicaulis</i>					

*Microlaena stipoides*  
*Microtis unifolia*  
*Oplismenus hirtellus*  
*Paspalum dilatatum\**  
*Paspalum distichum\**  
*Phormium tenax*

*Poa trivialis\**  
*Pterostylis banksii*  
*Rhopalostylis sapida*  
*Ripogonum scandens*  
*Schedonorus arundinaceus\**  
*Schoenoplectus tabernaemontani*

*Schoenus maschalinus*  
*Sporobolus africanus\**  
*Thelymitra* aff. *pauciflora*      ABS  
"Darkie"  
*Triglochin striata*  
*Typha orientalis*

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## South Island trip to Molesworth, 3–10 January 2016

Maureen Young (editor)

### Introduction

Participants: *Chris and Noel Ashton, Jan Butcher, Ewen Cameron, Lisa Clapperton, Louise Cotterall, Bev and Geoff Davidson, Gael Donaghy, Anne Fraser, Anne Grace, Leslie Haines, Barbara Hammonds, Shelley Heiss-Dunlop, Graeme Jane, John Millett, Helen Preston Jones, John and Stella Rowe, Jenni Shanks (organiser), Valerie Smith, Julia Stace, Claire Stevens, Cheryl Taylor, Alison Wesley, Anthony Wright (leader), Maureen Young.* The ages ranged from 50 to 87.

All the photographs were taken during the trip by: Alison (AWe), Anthony (AWr), Bev (BD), Cheryl (CT), Ewen (EC), Julia (JS) and Shelley (SH-D).

Twenty-eight members of the Auckland Botanical Society met at Christchurch Airport, then travelled north by two vans and a 4WD to Hanmer Springs. The town was in summer mode, with cafés and bars crowded and walkways and cycleways busy. We headed east to our accommodation for the week, the Hanmer Springs Forest Camp.

This well-equipped park suited our needs to perfection, and the friendly staff did all they could to make our stay enjoyable, including granting us their largest kitchen for our sole use. Apart from cooking and dining there, it also became our meeting place and science lab (Fig. 1), with the usual display of named species (Fig. 2) to help us identify South Island plants unfamiliar to us northerners. It was with sadness that we learned that our friend and proposed leader, Cathy Jones, was unwell and unable to lead us, but Anthony Wright stepped in and took over the role with his usual flair.

For an introduction to the vegetation of the area, Lucy Moore's Bulletin is highly recommended (Moore 1976).

### Monday 4<sup>th</sup> January – Sedgemere Kettlehole and Bert's Creek

Alison Wesley

The 28 intrepid botsoccers departed the Hanmer Forest Park camp in three vehicles after assembling according to the leader's orders at 8.30 am. The route to our destination went via Jacks Pass, at which point we paused briefly to view the destination for another day – Dumblane mountain, unfortunately obscured by low cloud. As we drove further to our destination it was notable how much snow had fallen during the previous night when the temperature at Hanmer was reported to have declined to 2°C. Everyone was dressed warmly and was well prepared for the low temperatures and fortunately there was no further rain after 8 am. However, as the day advanced, the clouds parted and the sun shone, causing the need to reduce the layers of clothing. Indeed those who failed to use some sunscreen experienced mild sunburn.

The roadside flowers commented on as we drove along included profuse viper's bugloss (*Echium vulgare*) and at higher altitude *Bulbinella hookeri*. Various celmisias were spotted amongst the tussock and also the many flowering *Gentianella corymbifera* (Fig. 3). Unfortunately the colourful yellow broom (*Cytisus scoparius*) was also widespread. We observed the signs to the St James cycle track, drove over Island Pass and made a brief stop at the site of Bot Soc's former camp in 2002 – now with a facelift as a stopover for the new cycleway and called the Sedgemere Chalet and shelter behind which many of us had previously camped (Benham 2002).

We arrived at our first destination – the Sedgemere Kettlehole (Figs. 4, 5) – at about 11am, and the exploration of the minuscule herbaceous plants here became the highlight of the day. Ewen remarked that, compared with our previous visit