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Easter Camp: Karikari Peninsula and environs. 6-9 April 2007

Maureen Young

Camp participants:
Enid Asquith, Paul Asquith, Robinn Asquith, Jan Butcher, Helen Cogle, Brian Cumber, Bev Davidson, Geoff Davidson, Gael Donaghy, Leslie Haines, Graeme Jane, Harry Livesey, Elaine Marshall, Kevin Matthews (local expert), Barbara Parris (leader), Helen Preston Jones, Alison Wesley, Sophie Williams, Maureen Young (camp mother).

First, a word about our local expert. Kevin Matthews farms on land between Awanui and Kaitaia, and is descended from the illustrious Matthews family, members of which have resided in Kaitaia since 1833. His great-great-grandfather was Rev. Joseph Matthews, missionary with the CMS. Joseph's brother Richard was the trainee missionary who travelled on the Beagle with Darwin. Joseph's eldest son, Richard Henry Matthews (Kevin's great-great-uncle), was well known as an amateur botanist who collected, mainly orchids, for Cheeseman. RHM passed this interest on to his eldest son, Henry Blencowe Matthews, who collected nearly 3000 specimens which are in the Auckland Museum Herbarium. Plants named in honour of these two men were *Corysanthes matthewsii, Thelymitra matthewsii, Myosotis matthewsii, Pterostylis matthewsii, Dracophyllum latifolium* var. *matthewsii* (later *D. matthewsii*), and *Pittosporum matthewsii. Thelymitra matthewsii* and *Myosotis matthewsii* are the only two of these names that are accepted. Kevin went out of his way to make our weekend a botanical success, even to the point of drying off his cows to one milking per day, so he would not have to rush off early in the afternoons. He hunted out special plants to show us, and gained permission for us to visit privately owned land. It's very pleasing that Kevin is now a member of ABS.

The camp was based at the Whatuwhiwhi Top 10 Holiday Park, with Barbara travelling up each day from Kerikeri. The weather was next to perfect, with just some rain on the last afternoon to dampen the stragglers who didn't have to rush back to work.

Friday 6 April
The first stop for the day was at Rangiputa, on the western-most point of the peninsula. Here we walked around the rocks to view the *Hebe diosmifolia* (Fig. 1.) that grows on the bank just a couple of metres above the splash-line. Studies have shown that there are two chromosome races present within this species, and populations from Te Paki, Rarawa and Karikari Peninsula contain tetraploid plants, the others being diploid, but no division can be made on morphological grounds (Murray *et al*. 1989). On the way we saw a small patch of *Tetragonia tetragonioides*, one frond of *Asplenium obtusatum* subsp. *northlandicum*, and a curious form of *Coprosma lucida* bearing thick leaves with inrolled margins.

South of the little village we walked a short distance down the coast, admiring the prostrate sand plants, *Coprosma acerosa* and *Pimelea arenaria.* Kevin guided us into a swamp to where the two swamp ferns, *Thelypteris confluens* and *Cyclosorus interruptus*, grow (Fig. 2.). These were much photographed. An interesting exotic growing near the edge of the swamp was pokeweed, *Phytolacca americana*, a more upright, robust and colourful plant than the common inkweed.

There are two small lakes with the name Rotokawau. We stopped at the smaller of the two, as it is accessible from the road. This lakeside has gone down in the annals of ABS history as being the site where the photo was taken that adorns the famous ABS T-shirt. In that photo members were in the usual undignified position, with glass to eye, tickling the irritable stigmas of *Glossostigma elatinoides.* Unfortunately, after the recent Northland floods, the *Glossostigma* plants were all underwater on this occasion. Also here were *Dracophyllum sinclairii, Schoenus brevifolius* and *Empodisma minus.* No sign was seen of the plants of *Cannabis sativa* that were present on the previous ABS visit.

Lunch was eaten in the hot sunshine at Puheke Beach, with one or two people enjoying a swim. The little volcanic hump at Puheke is a botanical disaster, being covered completely with gorse, pampas, and with tobacco weed in the gullies. One can only imagine it with the probable natural cover of pohutukawa forest. The plant that attracted us to this spot was a clump of *Asplenium obtusatum* subsp. *northlandicum*, snuggling in a crevice in a rock and showing well the fleshy, blunt-ended pinnae of this subspecies (Fig. 3.). Some were interested in a very robust plant of *Cyperus ustulatus* and wondered if perhaps it was the newly named *C. insularis* described from this locality.

Matai Bay (sometimes known as Maitai Bay) was the last stop for the day. Jolliffe Point, with an intriguing *Hebe* and also *Melicytus novae-zelandiae,* had to be ignored by most of the party, as we were led to Takini Point at the eastern end of the bay. By turning a botanical blind eye to the infestations of weeds – Cape honey flower, kikuyu, pampas and tobacco weed – we could enjoy the remaining natural vegetation. A grove of tawapou (*Pouteria costata*) excited more than the usual interest following the recent talk by Sandra Anderson on "Birds as pollinators & seed dispersers of the native flora". Although the trees were laden with

ripe fruit, these were just falling to the ground, as there were obviously insufficient pigeons to disperse them - a sobering sight. Under a forest of *Melicope ternata* trees Barbara pointed out that of the many *Pteris* plants present, some belonged to *P. comans,* some to *P. macilenta*, and the rest were hybrids between the two. Kevin took us to a streamside spot where his father had once taken Eric Godley to see a known population of *Fuchsia procumbens*, but they were unable to locate it, and all we could see was a thicket of kikuyu. Both species of *Cakile* grew on the beach. It was interesting to note that they occupied slightly different niches – *C. maritima* on the drier hummocks of sand, and *C. edentula* in the slightly damper hollows below.

Saturday 7 April

This day was spent exploring QE II covenanted forest at Hihi, on the north side of Mangonui Harbour. The land belongs to Greg and Teri Seon, but unfortunately they were away for the weekend and were unable to join us. Visitors for the day were ABS members Mike and Sue Rowledge, who now live at Kerikeri, and Anthea Goodwin from Mangonui. This area is the most northerly known site for hard beech (*Nothofagus truncata*), and Kevin led us along an old logging track to view the five trees on the property. Barbara, specialist in the grammitid ferns, was pleased when a fine healthy clump of *Grammitis rawlingsii* was found, growing as usual on a mossy mound near a kauri. Through a 10x lens the stout, red-brown hairs could be seen around the sori. *Sticherus flabellatus* grew by the track, as did plentiful *Gleichenia microphylla*.

The first of the abundant *Pittosporum pimeleoides* on the property was seen here (Fig. 4. and Fig. 5.). Two leaf forms were present, very fine leaves easily confused with young kanuka, and slightly wider leaves for all the world like mingimingi (*Leucopogon fasciculari*s). As all the plants were very small we began a search for the adult plants that logically should have been present. This entailed much mistaken identity until we began to get our collective eye in for the species. When a few plants, no more than 30 or 40 cm tall, were found to be bearing fruit, we realised that "adult" did not necessarily equate with "tall", though Harry did eventually find a shrub taller than his lanky self. After we had admired the beech trees, fine big specimens but with no seedlings to be seen, we returned to the house and set off up another track.

Fan fern (*Schizaea dichotoma*) was seen beside this track, and a surprise find growing along with *Hymenophyllum flabellatum* on a tree fern trunk, was *H. lyallii*. My edition of Brownsey & Smith-Dodsworth claims that it grows from Kaipara southwards but confined to the west of both islands. Hihi is well outside both of these limits, and it was decided that the high hills would often be under misty cloud cover and so produce conditions that would benefit the tiny fern. All four species of *Tmesipteris* were found, but unusually, the commonest one was *T. sigmatifolia*, sometimes seen prettily covering the tree fern on which it grew. The plentiful *Alseuosmia,* in fruit, fitted somewhere between *A. macrophylla* and *A. banksii* in that handy depository, *A. quercifolia*. The orchid, *Drymoanthus adversus,* was seen at the lunch stop. During the morning Barbara had seen a second grammitid, *Ctenopteris heterophylla*, and she was searching the banks of the bulldozed track for a third – "*Grammitis ciliata* must be here," she was heard to mutter. It wasn't until we reached the summit pa that it was finally spied on the banks of the earthworks. A good result. We ended our visit by being shown a huge kanuka tree in the bush off the driveway.

As we kept largely to the easier tracks along the hillsides and ridges, there is still a lot of territory in the gullies that was not explored. It was also the "in between" season for ground orchids, and bearing those two points in mind, there are bound to be many more to add to the 154 species we recorded there.

Sunday 8 April

Our first stop was at the roadside Lake Waiporohita. The plentiful *Glossostigma elatinoides* and other turf plants were under water at the northern end of the lake. As we walked to the southern end we noted an unfortunate invader, alligator weed (*Alternanthera philoxeroides*), the first of the three species we saw of this genus. On the hardpan at the southern end were seen *A.* aff. *sessilis* and *A. denticulata, Centipeda aotearoana,* clammy goosefoot *Chenopodium pumilio,* and *Gratiola pedunculata.* The Australian *G. pedunculata* is also considered to be indigenous to New Zealand, but is known only from Karikari Peninsula, at Lakes Waiporohita and Rotokawau. This was a good place to get to know *Kunzea ericoides* var. *linearis.*

We met up with Kevin at Lake Ohia, where gumboots were the order of the day. There grew *Lycopodiella lateralis* and *L. serpentina* (Fig. 6.), together with the almost black coloured mosses, *Campylopus bicolor* and *C. acuminatus* var. *kirkii*. *Lycopodiella lateralis* was common on the nutrient poor hard pan soils, scrambling among the stunted manuka plants, and bearing the erect cones laterally on the main stems. The nationally vulnerable *L. serpentina,* a prostrate plant with aerial stems bearing erect cones, was less plentiful, but never the less it was good to see a fair sized population. Careful searching revealed that there were some *Corunastylis pumila* orchids still in flower, and we also located two related species, *Schizaea fistulosa* and *S. bifida.* Knees were wetted in order to check out the silvery stipules on the minute red sundew, *Drosera pygmaea*. Here was a good opportunity to compare the differences between the two umbrella ferns, *Gleichenia dicarpa* and *G. microphylla.*

Plate 1: Easter Trip

Fig. 1 *Hebe diosmofolia* on bank at Rangiputa (Alison Wesley)

Fig. 2 *Cyclosorus interruptus* in swamp at Rangiputa (Alison Wesley)

Fig. 3 *Asplenium obtusatum* subsp. *northlandicum* at Puheke beach (Alison Wesley)

Fig. 4 *Pittosporum pimeleoides* in Hihi forest (Alison Wesley)

Fig 5. *Pittosporum pimeleoides* with open fruit (Alison Wesley)

Fig 6. *Lycopodiella serpentina* amongst vegetation at Lake Ohia. (Alison Wesley)

Plate 2: Easter Trip

Fig. 7 Lake Ohia with ABS members (Alison Wesley)

Fig. 8 *Cryptostylis subulata*, Kaimaumau swamp – last flowers (Alison Wesley)

Fig. 9 *Myriophyllum robustum* from small lake on West Coast Road (Alison Wesley)

Fig. 10.*Pittosporum obcordatum* growing at home of Kevin Matthews (Jan Butcher)

The southern side of the "lake" was accessed from Lake Ohia Road. The ancient podzolised lake bed was a strange sight, with its islands of stunted vegetation (Fig. 7.). There were a few plants of *Pimelea prostrata*, and dwarf kanuka less than 30 cm tall, but covered in capsules. Unfortunately this intriguing ecosystem is used as a rubbish dump.

Kaimaumau was the next destination, but those of us who have been in ABS long enough to remember camps at Kawerua began to detect signs of "Kaweruaitis". In this case it manifested itself as a reluctance to drive past the cafés at Awanui. However, with caffeine levels restored, the distance was soon covered and the stunted manuka, rushes and sedges at Kaimaumau yielded up what was for many the highlight of the weekend – many, many plants of *Cryptostylis subulata* (Fig. 8.) This is the Australian orchid that was only reported in New Zealand in 1976 from the Motutangi Swamp. It grows c. 1 m. tall, but is supported by the surrounding vegetation, and the flowers are veritable giants compared to the rest of our orchids. Although late in the season, most plants still had the last flower on the stem blooming beautifully. Kevin even had with him a small bottle containing a dead ichneumon wasp, *Lissopimpla excelsa.* The male wasps of this species perform an act of "pollination by sexual deception" with the orchid. Although it is rumoured that the wasp only arrived after the orchid had established here, Kevin said that he had known the wasp all his childhood, and we were both of the opinion that the orchid had probably been in the area for a long time before it was found.

A quick dash out to West Coast Road enabled Kevin to show us the giant water milfoil, *Myriophyllum robustum* (Fig. 9.), growing in a small lake near Waipapakauri, the parasitic *Cassytha paniculata* draped over bushes and tangled in the shorter vegetation, and an alien invader in Lake Ngatu, the introduced bladderwort, *Utricularia gibba*. A great surprise was to find that the tiny *Hydatella inconspicua* grows in Lake Ngatu – we found it at about gumboot depth in the water. Actually, Lake Ngatu is the type locality for this intriguing plant, first collected 1902 for Cheeseman by H. Carse and R.H. Matthews.

Monday 9 April

After packing up we set off to a property at the base of the peninsula, north of the Aurere Stream, belonging to Hec Busby. Hec is well known for the waka that he builds, and we noted a double-hulled vessel tied up to his jetty, and another one under construction in his shed. Barbara insisted that we go first to the dunes to check out the view, and it certainly was worth it. The whole of Doubtless Bay was spread out before us, the sea sparkling in the sunshine, and Tokerau Beach curving away into the near distance. Another insidious attack of Kaweruaitis was threatening, so we wandered along the dunes noting the dune plants, including *Pimelea arenaria, Coprosma acerosa* and *Carex testacea.* Little Robin had fun throwing herself down on "mattresses" of *Muehlenbeckia complexa*. A lookout over an area that graded from saltmarsh, through a bog to a wetter swamp gave us a great appreciation of what an unmodified wetland can look like, and how the various species occupy slightly different niches, the obvious limiting factor being the amount and type of water. We occupied ourselves until lunchtime, and then the unfortunates had to head back to face the Auckland traffic and the following day's work.

As for the rest of us, after another coffee stop at Awanui, we drove to Kevin's house where we first had a guided tour of the interesting plants growing in his garden. Most fascinating were the young plants of *Pittosporum obcordatum* growing in planter bags (Fig. 10.), and showing the weird juvenile leaves of the species well illustrated in Eagle (2006). These plants were grown from seed sourced from nearby Foley's Bush.

The indefatigable Kevin then led us up Quarry Road to a property owned by his uncle Hackney Matthews. Here we botanised a fascinating *Sphagnum* bog with a canopy of manuka and *Dracophyllum lessonianum.* The *Sphagnum* substrate was formed into hummocks and depressions, and it was noticeable that in the depressions grew the "drowned kittens" *Sphagnum falcatulum,* and the hummocks consisted of *S. cristatum*, there being a very clear "Plimsoll line" delineated by the water level. A small population of *Drosera spatulata* grew there, along with the liverwort *Goebelobryum unguiculatum* s.str. We soon got involved in a *Utricularia delicatula* hunt, finding delicate stems with some bearing little globose seed capsules and some the occasional flower. *Schizaea fistulosa* was very common, and there was consternation when a "bifurcating" stipe was found, until Barbara explained that this species can occasionally produce such fronds. Other plants of interest were *Lycopodiella lateralis* and *Epacris pauciflora*. Kevin has found a number of different orchids growing there in season, including a species of *Corybas*. A *Corybas* growing in *Sphagnum*! This definitely needs checking out.

With difficulty we dragged ourselves away, as Kevin had still more up his sleeve. Across the paddock, in the first rain of the weekend, we found that the flat landscape held a secret – a deep crevice eroded in the limestone rock. Big trees of taraire, kohekohe and puriri, laden with *Collospermum hastatum*, grew there, with *Hypolepis distans, Alseuosmia quercifolia, Arthropteris tenella* and much *Loxogramme dictyopteris* (*Anarthropteris lanceolata*) growing on the limestone rocks. But weariness was setting in, and with the change in the weather it was decided to call it a day. People headed off in various directions, after conveying their thanks to our wonderfully

knowledgeable host. For a general location map of the Karikari Peninsula see Fig. 11.

Acknowledgements

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Fig. 11. Map of the Karikari Peninsula

Appendix 1. List of indigenous vascular plant species for QE II covenanted bush of Teri and Greg Seon, Hihi, Mangonui Harbour

Ferns & Fern Allies (51)
Adiantum fulvum
Adiantum hispidulum
Adiantum viridescens
Asplenium flaccidum
Asplenium oblongifolium
Asplenium polyodon
Blechnum discolor
Blechnum filiforme
Blechnum fraseri
Blechnum membranaceum
Blechnum novae-zelandiae
Cardiomanes reniforme
Ctenopteris heterophylla
Cyathea dealbata
Cyathea medullaris
Cyathea smithii
Dicksonia squarrosa
Doodia australis
Gleichenia dicarpa
Gleichenia microphylla
Grammitis ciliata
Grammitis rawlingsii
Huperzia varia
Hymenophyllum demissum
Hymenophyllum dilatatum

Hymenophyllum flabellatum
Hymenophyllum lyallii
Hymenophyllum rarum
Hymenophyllum revolutum
Hymenophyllum sanguinolentum
Lastreopsis hispida
Leptopteris hymenophylloides
Lindsaea trichomanoides
Loxsoma cunninghamii
Lycopodiella cernua
Lycopodium deuterodensum
Lycopodium volubile
Lygodium articulatum
Microsorum pustulatum
Microsorum scandens
Paesia scaberula
Pneumatopteris pennigera
Pyrrosia eleagnifolia
Rumohra adiantiformis
Schizaea dichotoma
Sticherus flabellatus
Tmesipteris elongata
Tmesipteris lanceolata
Tmesipteris sigmatifolia
Tmesipteris tannensis
Trichomanes elongatum

Gymnosperms (7)

Agathis australis
Dacrycarpus dacrydioides
Dacrydium cupressinum
Phyllocladus trichomanoides
Podocarpus hallii
Podocarpus totara
Prumnopitys ferruginea

Dicotyledons (62)

Acaena novae-zelandiae
Alseuosmia quercifolia
Beilschmiedia tarairi
Beilschmiedia tawa
Brachyglottis repanda
Centella uniflora
Coprosma arborea
Coprosma grandifolia
Coprosma lucida
Coprosma parviflora
Coprosma rhamnoides
Coprosma spathulata
Corokia buddleioides
Corynocarpus laevigatus
Dracophyllum latifolium
Dysoxylum spectabile
Elaeocarpus dentatus
Fuchsia excorticata
Geniostoma ligustrifolium
Gonocarpus incanus
Griselinia lucida
Hebe stricta
Hedycarya arborea
Hoheria populnea
Hydrocotyle moschata
Knightia excelsa
Kunzea ericoides
Laurelia novae-zelandiae
Leptecophylla juniperina
Leptospermum scoparium
Leucopogon fasciculatus
Lophomyrtus bullata
Melicytus macrophyllus
Melicytus ramiflorus
Metrosideros diffusa
Metrosideros fulgens
Metrosideros perforata
Metrosideros robusta
Mida salicifolia
Myrsine australis
Myrsine salicina
Nertera dichondrifolia
Nestegis lanceolata
Nothofagus truncata
Olearia furfuracea
Olearia rani
Parsonsia sp.
Passiflora tetrandra
Pittosporum cornifolium
Pittosporum pimeleoides
Pittosporum tenuifolium
Pseudopanax arboreus
Pseudopanax crassifolius
Ranunculus reflexus
Rubus australis
Rubus cissoides
Schefflera digitata
Solanum aviculare
Streblus heterophyllus
Toronia toru
Vitex lucens
Weinmannia silvicola

Monocotyledons (34)

Astelia solandri
Astelia trinervia
Carex dissita
Carex solandri
Carex virgata
Collospermum hastatum
Cordyline australis
Cordyline banksii
Cordyline pumilio
Dianella nigra
Diplodium trullifolium
Drymoanthus adversus
Earina autumnalis
Earina mucronata
Freycinetia banksii
Gahnia lacera
Gahnia pauciflora
Gahnia setifolia
Gahnia xanthocarpa
Ichthyostomum pygmaeum
Lepidosperma australe
Lepidosperma laterale
Libertia ixioides
Microlaena avenacea
Microlaena stipoides
Morelotia affinis
Phormium tenax
Rhopalostylis sapida
Ripogonum scandens
Schoenus tendo
Uncinia banksii
Uncinia uncinata
Uncinia zotovii
Winika cunninghamii