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Appendix 1: List of insects observed by A R Flynn on Te Moehau trip 8-9th February 2003

Lepidoptera (butterflies and moths):
Lycaena salustius complex*: Lycaenidae,* Common copper (Pepe Para Riki). Flying in open areas (not collected)

Coleoptera (beetles):
Navomorpha lineata: Cerambycidae, striped longhorn
Halmus chalybeus: Coccinellidae, steel blue ladybird
Stethaspis longicornis: Scarabaeidae, Mumu chafer. (Large shinny green)
Scolopterus sp.: Curculionidae, Four spined weevil. Found on *Dracophylum* Half way up
Cicindela tuberculata: Carabidae*,* common tiger beetle. On Moehau trig (Photo taken, killed and cannibalised other tiger beetle)
Ctenognathus bidens: Carabidae, ground beetle. Between trig and little Moehau summit
Eucolaspis sp: Chyrsomelidae, bronze beetle

Diptera:
Leptotarsus ferruginosus: Tipulidae*,* Orange crane fly. Found all over at the top of Moehau
Calliphora stygia: Calliphoridae Brown blowfly, Rango Tuamaro. Very common at the top on sunny spots

Hymenoptera (ants, bees and wasps):
Sphictostethus nitidus: Pompilidae*,* Golden spider hunting wasp
Huberia striata: Formicidae, red native ant. Nesting in logs below little Moehau summit.

Plecoptera (stoneflies):
Stenoperla sp. Large green stone fly (adult). At last water crossing at base of mountain

Phasmatidae (stick insect):
?Clitarchus sp., Common stick insect (not collected). Found dead on lower track.

Thysanoptera (thrips):
Thrips australis:. Thripidae
Thrips obscuratus: Thipidae
Thrips found at the top on Moehau in hundreds in *Phormium cookianum* (Possibly a mating aggregation)

Hemiptera (true bugs, cicadas and leafhoppers):
Coelostomidia sp: Margarodidae (probably *pilosa* or *zealandica*), giant scale. Found crawling on tree trunk at side of track

Field Trip: Wairoa Valley, Hunua Ranges. 15/02/03

Steve McCraith

On a clear summer morning 16 members of the Auckland Botanical Society turned out for the first foray of the New Year. After a quick swapping of stories in the car park of the Hunua Tennis Club the group headed out in to the Wairoa Valley c. 10km to the south. Cars were left at the bottom car park on Otau Road, rides were pooled and the group undertook the rally stage of the trip up the dusty Moumoukai Road. Cars were parked, packs packed and repacked until finally Botsoc headed off up Repeater Road in search of botanical splendour. The old entry/exit for the now defunct section of the Wairoa Valley Track is located very close to the car park. Today however, we would be visiting the new section of the track.

Not far along the road a lookout provides fine views over the Mangatawhiri Valley including the reservoir itself, one of four in the Hunua Ranges. Views were also available of the Repeater station along the ridge to the north. Further on up the road a side trip was made to the site of the old rangers house, previously home to an extensive exotic garden. A few remnants of the garden can still be seen including English ivy (*Hedera helix*), *Clematis flammula*, *Plectranthus* ? *ciliatus*, bear's breeches (*Acanthus mollis*), *Cyperus eragrostis*, *Escallonia rubra* and kahili ginger (*Hedychium gardnerianum*). Local rangers are slowly removing the more aggressive of these. In addition, several obviously planted natives included kauri (*Agathis australis*), common flax (*Phormium tenax*) and kowhai (*Sophora microphylla*). As we were about

to leave the local ranger Phil Lugton, the person to thank for much of the new track work in the area, arrived to join us.

A short walk further along Repeater Road and the new entry/exit point for the renamed Wairoa Valley Track (now the Wairoa Loop Track) was located and Botsoc promptly located a suitably shady spot on the side of the road and attacked, with some conviction…their lunch. Fifteen minutes later (after much munching, crunching and chomping) the group sat back with contented summery daydream looks on their faces while copper coloured butterflies drifted through the setting.

After what seemed hours someone decided it was time to go and the group started off down the new section of track. It was soon apparent that the rangers responsible for selecting the new route had done their homework. Not only was the area of forest an excellent example of Hunua's finest podocarp/broadleaf forest but the gradient was perfect (considering it was following down a ridge line) and the track underfoot was well drained (with a nice, thick layer of metal), suitably wide (but not too wide) and was afforded well sectioned steps where required. In addition it appears that the path through the forest affected few sizeable trees but still took track users past some impressive giants that had fallen naturally.

Along for the trip were mycologists Peter White and Clive Shirley who went about their search for fungi. They noted three different myxomycetes: *Stemonitis axifera* (on dead wood), *Physarum compressum* (nikau palm frond) and an unidentifiable *Physarum* sp. (nikau palm frond). In the Eumycota (true fungi) they pointed out *Auricularia polytricha* (wood ear fungi), *Clavaria sulcata*, *Favolaschia calocera* (those bright orange mushrooms often seen on rotting logs), *Ganoderma* aff*. applanatum* (bracket fungi) and *Phellinus wahlbergii* (on the large northern rata).

The highlight of the new section of track would have to have been the number of mature miro (*Prumnopitys ferruginea*) present, especially toward the Repeater Road end, which prompted one member to reason that perhaps the track should be called the Miro Track. Wood pigeon (*Hemiphaga novaeseelandiae*) were extremely common during both the journey and the reconnoitre (undertaken two weeks prior), though they were often heard and not seen due to the thick canopy. Grey warbler (*Gerygone igata*), with their distinctively long and high-pitched song, were conspicuous as were tui (*Prosthemadera novaeseelandiae*).

There appears to be relatively low numbers of possums in the area as kohekohe (*Dysoxylum spectabile*), a favourite salad ingredient of the dreaded possum, appear in some numbers along the track. An early season flowering specimen of *Metrosideros fulgens* was spied through the canopy climbing up the old trunk of a tree rata. Several nice kohuhu (*Pittosporum tenuifolium*) and numerous large northern rata (*Metrosideros robusta*) - with their distinctive notched leaf tip - were seen dotted along the track. A solitary mangeao (*Litsea calicaris*) was noticed by a very sharp pair of eyes. Further down, close to where the track exits the ridge and joins the river, the path leads travellers through a grove of kawaka (*Libocedrus plumosa*), a member of New Zealand's only native cedar genus. Several adult trees have set forth quite a collection of juvenile plants. A lone *Pittosporum cornifolium* growing, typically, as an epiphyte in a tawa was noted near the stream.

Continuing on, the track zigzags over the stream several times and is bordered by clay banks, which support a varied flora and are well known to local orchid enthusiasts. Unfortunately the only orchids to be seen were several very old fruiting heads of *Pterostylis banksii*. Numerous *Wahlenbergia* were in full bloom. These clay banks support a nice array of grasses and sedges including: *Rytidosperma gracile* in flower, *Uncinia banksii* – the small *Uncinia*, *Carex dissita* and *C. ochrosaccus* side by side and, interestingly, a small patch of *Echinopogon ovatus* – or hedgehog grass – was seen 500 metres before the track exit.

Kereru (*Hemiphaga novaeseelandiae*) admiring mapou (*Myrsine australis*).

During the trip John Braggins and Jessica Beever extensively added to the list of lower plants in the Valley as part of a reconnoitre for the upcoming bryophyte workshop.

Wairoa Loop Track Liverworts

John Braggins

The vast majority of the liverworts listed are from the clay trackside bank which is quite rich in species that like that sort of habitat. Tree fern trunks and bases were not particularly rich though a few species are more or less confined to that habitat including the *Bazzania* species, *Zoopsis argentea*, *Telaranea tetradactyla*. At the time of this trip the clay bank was particularly dry though clearly it can be much moister from the plants that are growing there. Only a few tree epiphytes were found including the *Lejeunea* and *Frullania* species. The trees along the track were not rich in epiphytes.

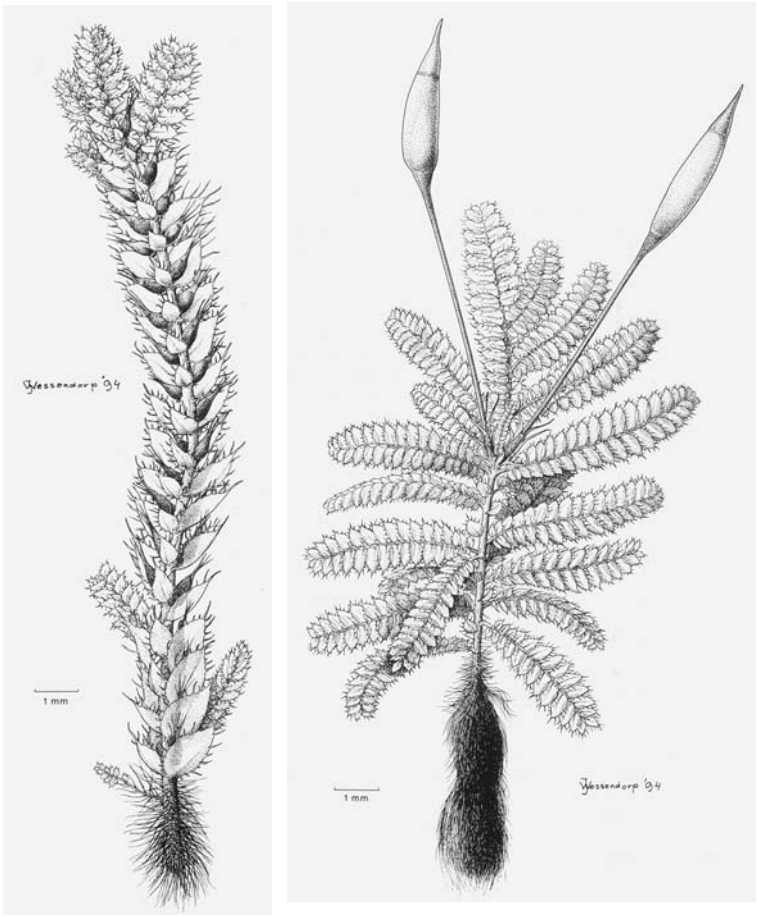
Aneura sp.	
Balantiopsis diplophylla	
Bazzania adnexa	V
Bazzania tayloriana	V
Chiloscyphus helmsiana	*V*
Chiloscyphus mittenianus	V
Chiloscyphus ? *subporosus*	
Frullania pycnantha	
Frullania sp.	
Heteroscyphus sp.	V
Isotachis montana	V
Jackiella curvata	V
Lamellocolea granditexta	V
Leiomitra lanata	
Lejeunea flava	
Lejeunea primordialis	V
Lembidium nutans	V
Marchantia foliacea	V
Metzgeria sp.	V
Monoclea forsteri	
Pallavicinia xiphoides	V
Paracromastigum furcifolium	V
Plagiochila sp.	
Riccardia ? *crassa*	
Saccogynidium australe	V
Solenostoma inundata	
Symphyogyna hymenophyllum	
Symphyogyna ? *undulata*	
Telaranea tetradactyla	
Telaranea tetrapila	V
Temnoma pulchellum	V
Treubia ? *lacunosa*	V
Zoopsis argentea	V
Zoopsis leitgebiana	V

Some species not yet confirmed and only some are vouchered (labelled V).

Wairoa Loop Track Mosses

Jessica Beever

"Only three moss species were added to the [existing BotSoc] list: *Hypopterygium commutatum, Ctendium pubescens* and *Dicranoloma fasciatum*. *Dicranoloma fasciatum* is a small, pale *Dicranoloma*. Under the compound microscope it is immediately distinctive from all other New Zealand *Dicranoloma* species in that the cell walls in the base of the leaf are thin-walled and non-porous, with dense cell contents. In addition the leaves have a wide hyaline border, and large teeth along the upper margins. Both the other new records are mosses of drier sites. *Ctendium pubescens* looks rather like a soft, fluffy, sparkling *Hypnum*. The leaves have quite large teeth near the apex, which is often twisted.



Catharomnion ciliatum **male (left) and female (right) plants drawn by J Wessendorp from specimen Beever 70-26 from 'Hypopterygiaceae of the World' by J D Kruijer (2202) Blumea Supplement 13. Reproduced with permission.**

Hypopterygium commutatum is one of our less spectacular umbrella mosses. It was found on a moist bank near the bottom of the Wairoa Loop Track. This genus is distinct from the other main genus of umbrella mosses, *Hypnodendron*, in having the leaves in three distinct rows, two lateral rows and a third row of smaller underleaves. In *H. commutatum* the underleaves are strongly toothed, and the stems bear stout bristles, both of which features are visible on the

underside of the fronds with a hand-lens. It also has internal canal systems in the stem. On the strength of the bristles and the canals a new genus, *Canalohypopterygium* was suggested for this moss, by German workers (Frey and Schaepe 1989), but this change has not been generally adopted in New Zealand.

Nearby a colony of the rather similar *Catharomnion ciliatum*, usually found on tree-fern trunks, was seen growing on the bank, as well as the much more spectacular *Hypopterygium filiculaeform*. This is perhaps the most magnificent of our umbrella mosses, with fronds up to 6 cm across.

Acknowledgements
I would like to thank both Jessica Beever and John Braggins for their additions to the list of mosses and liverworts and also the extensive notes they provided. Thank you also to Peter White and Clive Shirley for their notes regarding fungi. Finally, recognition should be made of the work on the new section of the track by local rangers including Phil Lugton.

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Field trip: Kauri Point Reserve and Wattle Downs Farm, Manurewa. 15/03/03

Rhys Gardner

Twenty BotSoc'ers gathered at Kauri Point at 10.30 am and first enjoyed the views south across the Manukau Harbour from what is a satisfactorily wide esplanade reserve. The late start meant we could botanize dryshod along the shore, with finds coming of a colony each of *Chenopodium glaucum* subsp. *ambiguum* and *Lilaeopsis novae-zelandiae*. A kowhai (*Sophora chathamica* we thought) was made much of, and a taller member pointed out the single kanuka (*Kunzea ericoides*). We were not to see more of either species.

At the Kauri Point cliff edge at one place Mike Wilcox identified some good healthy trees as mostly belonging to *Cupresssus lusitanica* (some foliage quite blue), with *C. macrocarpa* also present and thriving but of more irregular form in its trunk. We saw neither kauri nor totara. Some time was spent on the pampas grasses, and we decided that with one exception all were *Cortaderia selloana* (blue-green foliage, culm-leaf sheaths not very hairy). No more *C. jubata* plants were seen during the day; although the species surged down the Southern Motorway (in the '70s ?) it seems somehow to have failed to get westwards onto this shoreline.

Lunch was taken in a paddock of Wattle Downs Farm, among recent fellings of what had been a forest of good-sized silver wattle (*Acacia dealbata*). There were logs of c. 50 cm diam. to sit on and cut slabs for thermos rests, their silvery orange tones harmonizing with the view across to Karaka's cliffs and sand flats. This would seem to be the only place in Auckland (apart from the Hunuas) where silver wattle grows, and later on we were to see some regeneration of it in bracken and gorse along the coastal clifftop. According to Mr B. Kimpton, third-generation owner of the farm, the wattles were planted in the twenties and produced bark for the tanneries at Onehunga, but were not the right sort of wattle for this. A fringe of thin-topped silver wattles remains here along the coastal slope, but further north round Waimahia Creek (and back at Kauri Point) similar vegetation is made up almost entirely of vigorous black wattles (*A. mearnsii*).

Anne Grace connecting with mangrove (*Avicennia marina*) seedlings at the tideline, Wattle Downs, Manukau Harbour. 15 March 2003.

In the afternoon we had an easy walk north to "Gratiola Gully", off Waimahia Creek (grid ref. R12 770597). The lower hundred metres or so of this short broad creeklet is edged with tree privet (*Ligustrum lucidum*) and fallen black wattles; who would have thought it then, that centrally under some scrappy cabbage trees, on shallow peaty mud, there would be an abundance of *Gratiola sexdentata*, a native herb