*?Hymenostomum patulum (Knight) Dix.	58-41
Hypnum cupressiforme Hedw.	58-50a
Philonotis tenuis (Tayl.) Reichdt.	58-34b
*Rhynchostegium tenuifolium (Hedw.) Reichdt.	58-43
*Sematophyllum amoenum (Hedw.) Mitt.	58-39
Trichostomiopsis australasiae Card.	58-34c

* indicates that capsules were seen

ACKNOWLEDGEMENT

I thank Anthony Wright for his skilled work as bosun (Heinemann NZ Dictionary: 'a seaman in charge of a ship's rigging, boats and anchors').

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Field trip report : Brynderwyn Hills, Mangawhai

Sandra Jones

Twenty-six members ignored the threatening skies and were rewarded with and **almost** rainless day. We were welcomed to the Mangawhai Forest Preservation Company's block in the Brynderwyn Hills by Pat and John Morton who had kindly invited us to explore the 1,000 acre property which was purchased 3 years ago and is now owned by a company of 16 shareholders. Each has the right to build a house on a designated plot within 100 acres of former farmland. The whole property is protected by a Queen Elizabeth II National Trust covenant.

An initial list of 135 species had been compiled by the Mortons and the Jones, but there were some surprising omissions. Incentives were offered, in the form of chocolate fish, to anyone who could find Bulbophyllum, five-finger (Pseudopanax arboreus), kowhai (Sophora microphylla), and a Pittosporum or a Hebe of any kind. In the event, Bulbophyllum pygmaeum, Pseudopanax arboreus and Pittosporum eugenioides were discovered, but it wasn't until the next day that Pat Morton found Hebe stricta and Pittosporum tenuifolium. Kowhai has remained elusive. At the end of the day, the species list had grown by one-third, to 180.

We spent some time in a magic patch of regenerating bush (kauri, rimu, kahikatea, tanekaha, Mida, Coprosma arborea) near the entry gate. We had barely started exploring when Maureen Young identified Corybas unguiculatus. There was lots of it, some in flower, some still in bud. Maureen and Frank Hudson had found this species a few years ago at Woodcocks Reserve near Warkworth, but it was not known elsewhere in the area, so this was quite a find. ["Unguiculatus" means "fingernail",

referring to the shape of the hood. There is an excellent photograph in Wilson and Given "Threatened Plants of New Zealand". C. unguiculatus is also recognised as an Australian species, but Doug McCrae believes that the N.Z. and Australian plants are not the same species. As the N.Z. form is known only from "a few sites between Kaimaumau and Warkworth" its status is "endangered".] In this healthy patch of bush we found 7 species of ground orchid in flower. An unusual find was a small patch of Pterostylis trullifolia, each flower with strong red streaks along the dorsal sepal. Patches of ordinary green P. trullifolia grew nearby. It was finally agreed that the Alseuosmia seedlings were A. x quercifolia, which is the name given by R.O. Gardner (N.Z. Jnl. Bot. 1978) to "(all) members of the A. banksii x macrophylla group". On a previous occasion Maureen had recorded A. banksii from Hastie's bush, a little further to the east, but we saw no sign of either species. Later in the day a shrub of Alseuosmia was found with one flower. Tmesipteris elongata, T. lanceolata and T. sigmatifolia were all found here, with T. tannensis recorded in the bush above the main stream.

We climbed the hill to a grassy area above the Morton's cottage where we could eat our lunch overlooking the bush in the valley and on the hills behind. The group stayed together for a wade along the shallow creek as far as a small waterfall. The main items of botanical interest along the stream were Adiantum diaphanum and Clematis cunninghamii (syn parviflora). The leaves of the latter species appear to be most commonly entire; the ones we found were mostly lobed.

The party then split up. Six opted for an easy walk along an old 4wd track (rapidly becoming overgrown) which follows the valley floor for some distance, as far as a grove of four large rata (Metrosideros robusta) and numerous matai (Prumnopitys taxifolia). This area has been heavily grazed but since the livestock were removed, seedling shrubs, mainly Coprosma rhamnoides, C. areolata and Carpodetus serratus and nikau, have sprung up forming a miniature knee-high forest of their own. Pig rooting continues to cause some damage though. The only matai seedlings we could find were a few protected by the root mass of a large rata. No doubt many more will appear as the understorey recovers.

The main party decided to head for the hills. From the waterfall, we climbed straight up a long spur until we reached the old farm track which runs along the crest of the main ridge. We then followed the next spur down, keeping to the valley slope, slithering and sliding most of the way, to emerge, very cleverly, we thought, immediately below Morton's house. Trichomanes endlicherianum and Dracophyllum latifolium were the botanical highlights of this valley.

Postscript: Next day, Pat and John Morton, accompanied by a pied tit for part of the way, explored the ridge track for some distance and added the following species to the list: Toronia toru, Pittosporum tenuifolium, Hebe stricta, Gahnia xanthocarpa, Lophomyrtus bullata.

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

FERNS & FERN ALLIES
?Adiantum cunninghamii
Adiantum diaphanum
Adiantum hispidulum
Anarthropteris lanceolata
Asplenium bulbiferum
Asplenium flaccidum
Asplenium oblongifolium
Asplenium polyodon
Blechnum capense agg. "black spot"
Blechnum chambersii
Blechnum discolor
Blechnum filiforme
Blechnum fluviatile
Blechnum fraseri
Blechnum membranaceum
Cyathea dealbata
Cyathea medullaris
Deparia petersenii ssp. congrua
Dicksonia squarrosa
Doodia media ssp. australis
Gleichenia dicarpa
Grammitis ciliata
Histiopteris incisa
Hymenophyllum demissum
Hymenophyllum dilatatum
Hymenophyllum flabellatum
Hymenophyllum revolutum
Hymenophyllum sanguinolentum
Lastreopsis glabella
Lastreopsis hispida
Leptopteris hymenophylloides
Lindsaea trichomanoides
Lycopodium cernuum
Lycopodium varium
Lycopodium volubile
Lygodium articulatum
Paesia scaberula
Phymatosorus diversifolius
Phymatosorus scandens
Pneumatopteris pennigera
Pteridium esculentum
Pteris pendula
Pteris tremula
Pyrrosia eleagnifolia
Tmesipteris elongata subsp. elongata
Tmesipteris lanceolata
Tmesipteris sigmatifolia
Tmesipteris tannensis
Trichomanes elongatum
Trichomanes endlicherianum
Trichomanes reniforme

GRASSES
Isachne globosa
Microlaena avenacea
Oplismenus imbecillis
Rytidosperma gracile

ORCHIDS
Acianthus sinclairii
Bulbophyllum pygmaeum
Corybas cheesemanii
Corybas trilobus
Corybas aff. unguiculatus
Drymoanthus adversus
Earina autumnalis
Earina mucronata
Microtis unifolia
Orthoceras novae-zeelandiae
Pterostylis alobula
Pterostylis rubricaulis
Pterostylis trullifolia
Thelymitra longifolia

DICOTYLEDONS
Acaena novae-zelandiae
Alseuosmia quercifolia
Aristotelia serrata
Beilschmiedia tarairi
Beilschmiedia tawa
Brachyglottis repanda
Callitriche muelleri
Calystegia sepium
Carmichaelia aligera
Carpodetus serratus
Centella uniflora
Clematis cunninghamii
Clematis paniculata
Coprosma arborea
Coprosma areolata
Coprosma grandifolia
Coprosma rhamnoides
Coprosma robusta
Coprosma spathulata
Corynocarpus laevigatus
Cyathodes juniperina
Dichondra repens
Dracophyllum latifolium
Drosera peltata ssp. auriculata
Dysoxylum spectabile
Elaeocarpus dentatus
Elatostema rugosum
Epilobium sp. (1)
Epilobium sp. (2)
Fuchsia excorticata

Geniostoma rupestre var ligustrifolium
Geranium homeanum
Gnaphalium limosum
Gnaphalium gymnocephalum
Gonocarpus incanus
Griselinia lucida
Haloragis erecta
Hebe stricta var stricta
Hedycarya arborea
Hoheria populnea
Hydrocotyle novae-zeelandiae
Knightia excelsa
Kunzea ericoides
Laurelia novae-zelandiae
Leptospermum scoparium
Leucopogon fasciculatus
Lobelia anceps
Lophomyrtus bullata
Macropiper excelsum
Melicytus macrophyllus
Melicytus ramiflorus
Metrosideros diffusa
Metrosideros fulgens
Metrosideros perforata
Metrosideros robusta
Mida salicifolia
Muehlenbeckia australis
Myrsine australis
Nertera depressa
Nertera dichondrifolia
Nestegis lanceolata
Olearia furfuracea
Olearia rani
Parsonsia heterophylla
Pittosporum eugenioides
Pittosporum tenuifolium
Pomaderris kumeraho
Pomaderris phylicifolia var ericifolia
Pseudopanax arboreus var arboreus
Pseudopanax crassifolius
Ranunculus reflexus
Rhabdothamnus solandri
Rubus australis
Rubus cissoides
Schefflera digitata
Senecio hispidulus
Senecio minimus
Solanum aviculare
Toronia toru
Vitex lucens
Wahlenbergia gracilis
Weinmannia silvicola

MONOCOTS excl. grasses & orchids
Astelia solandri
Carex ? dissita
Carex virgata
Collospermum hastatum
Cordyline australis
Cordyline banksii
Cordyline pumilio
Dianella nigra
Eleocharis gracilis
Freycinetia baueriana subsp. banksii
Gahnia setifolia
Gahnia xanthocarpa
Isolepis inundata
Juncus planifolius
Lepidosperma laterale
Rhopalostylis sapida
Ripogonum scandens
Schoenus maschalinus
Schoenus tendo
Uncinia banksii
Uncinia uncinata

Orchid update

E.D. Hatch

In Lindleyana 4:(3) 1989 p. 138, Jones and Clements transfer the pygmy prasophylls to Genoplesium R. Br. Only 2 NZ species are affected -

Genoplesium nudum (J. D. Hook.) D. Jones & M. Clements p. 144
syn. Prasophyllum nudum J. D. Hook.

Genoplesium pumilum (J. D. Hook.) D. Jones & M. Clements p.144
syn. Prasophyllum pumilum J. D. Hook.