

*Sophora microphylla*  
*Streblus heterophyllus*  
*Vitex lucens*  
*Weinmannia silvicola*

### Monocotyledons

*Acianthus sinclairii* AK 151683, 151808  
*Astelia solandri*  
*Bulbophyllum pygmaeum* AK 158814  
*Caladenia carnea* AK 151809  
*Carex dissita*  
*Carex flagellifera* #  
*Carex lessoniana*  
*Carex virgata*  
*Collospermum hastatum*  
*Cordyline australis*  
*Cordyline pumilio* AK 152767  
*Corybas cheesemani*  
*Corybas oblongus* AK 151810, 155422  
*Corybas trilobus* AK 155421  
*Cyperus ustulatus*  
*Cyrtostylis oblonga* AK 151682  
*Dianella nigra*  
*Earina mucronata* AK 151580  
*Freycinetia banksii*  
*Gahnia lacera*  
*Gahnia pauciflora* AK 151887  
*Gahnia setifolia*  
*Gahnia xanthocarpa*  
*Isolepis reticularis* AK 151581  
*Juncus articulatus*  
*Juncus edgariae*  
*Juncus planifolius* AK 151811  
*Juncus prismatocarpus* AK 183106  
*Juncus sarophorus*  
*Lepidosperma australe* #  
*Microlaena avenacea*  
*Microlaena stipoides*  
*Oplismenus hirtellus* subsp. *imbecillis*  
*Pterostylis agathicola* AK 151681, 155404  
*Pterostylis alobula* AK 151691  
*Pterostylis banksii* AK 151843, 151845  
*Pterostylis brumalis* AK 155417  
*Pterostylis graminea* AK 155403  
*Pterostylis trullifolia* AK 151884, 155408  
*Rhopalostylis sapida*

*Ripogonum scandens* #  
*Rytidosperma biannulare* AK 183108  
*Schoenus maschalinus*  
*Schoenus tendo* AK 151895  
*Thelymitra* sp.  
*Typha orientalis*  
*Uncinia banksii*  
*Uncinia uncinata*  
*Uncinia zotovii*  
*Winika cunninghamii*

### Fungi

*Aleurodiscus ochraceoflavus*  
*Amanita nehuta*  
*Amanita nothofagi*  
*Aphelaria dendroides*  
*Armillaria limonea*  
*Auricularia cornea*  
*Calocera* sp.  
*Calvatia cyathiformis*  
*Cantharellus wellingtonensis*  
*Clavaria sulcata*  
*Coprobria granulata* (on dung)  
*Cordyceps (Beauveria) bassiana*  
*Cortinarius rotundisporus*  
*Cortinarius* sp.  
*Crepidotus* sp.  
*Crinipellis procera*  
*Crucibulum leave*  
*Dacrymyces stillatus*  
*Favolaschia calocera* \*  
*Laccaria* sp.  
*Lycoperdon perlatum*  
*Macrolepota clelandii*  
*Morganella compacta*  
*Mutinus caninus*  
*Mycena mariaae*  
*Panaeolus* sp.  
*Pleurotus* sp.  
*Pseudohydnum gelatinosum*  
*Ramariopsis antillarum*  
*Russula acrolamellata*  
*Tremella fuciformis*

## Field Trip: McElroy's Scenic Reserve, Mahurangi. 21/08/04

Maureen Young

### Introduction

McElroy's Bush is a 144.5 ha scenic reserve vested in the Rodney District Council. It is situated approximately seven kilometres south-south-east of Warkworth on the western shores of the Mahurangi Harbour (NZMS 260 Sheet R09 620250). It is bounded on the north by Cowan Bay Road, on the east and west by privately owned farmland, and on the south by Dyers Creek. The landform consists of flat-topped

ridges that drop steeply down to the tidal creek. A well-formed pa and several middens within the reserve show that it was settled in pre-European times, and the kauri timber was utilised from before 1840. Logging grooves can still be seen on some ridges. The reserve has long had a problem with goat infestations, and the undergrowth only consisted of species unpalatable to these pests. In 2002 a cull was carried out there and in an adjacent piece of bush, and as a

result some broad-leaved seedlings are finally making an appearance. Possum control is carried out regularly by the ARC. The reserve was visited by the ABS in July 1987.

#### ABS Field Trip 21 August 2004

To begin the day's outing the group walked 100 metres down the road from the carpark, then entered the bush to explore a ridge covered with kauri trees, most of them saplings. At this time of the year the ground orchids were prolific, many of them in flower. As some very late *Pterostylis brumalis* were still blooming, it was a good opportunity to compare the "cobra"-like flower head of this species with the very narrow hood of *P. trullifolia*. Later in the day the third member of the trio, *P. alobula*, was also seen. *Pterostylis agathicola* and *P. graminea* were in early flower, as was *Cyrtostylis oblongus*. The fern *Grammitis rawlingsii*, with long, narrow fronds, was growing as usual on moss-covered rotting wood, and by comparison the shorter, hairier fronds of *G. ciliata* were seen nearby growing on the ground. Toru (*Toronia toru*) was quite common, there were small plants of *Dracophyllum latifolium*, some *Corokia buddleioides*, and one rather sad sapling of toatoa (*Phyllocladus toatoa*). As the lunch stop was some distance away, people were hurried away back to the carpark, and from there along the track on the main ridge.

Here some of the signs of years of goat browsing were the thickets of scrubby coprosmas, mostly *Coprosma rhamnoides* and *C. areolata*, and swards of the hook grasses, *Uncinia uncinata* and *U. distans*. This ridge was cleared in the logging days, and the kanuka trees which regenerated afterwards are now beginning to disintegrate. Also established as a result of the high light levels following logging are several large northern rata trees. A newly marked trail loops through the bush, but the Bot Soccers were led in the opposite direction, down a steep slope into a broad gully. Here the vegetation was in complete contrast to that which had previously been seen, with huge taraire and puriri trees forming a high canopy, and many nikau underneath. This is where the saprophytic orchid, *Danhatchia australis*, can be found in the summer months.

The lunch spot on the shores of the estuary was reached just before starvation levels became desperate. As this little grassy platform by the mangroves slowly erodes, small artefacts from the logging and ship building days are released. Up the steep slope behind it are shell middens and almost obliterated kumara pits. Tawaroa (*Beilschmiedia tawaroa*) trees growing here caused some discussion.

Because the reserve rises so steeply from the riverbank there are few signs of saltmarsh vegetation.

After lunch the return trail meandered up the ridge bordering the gully, until it met up with the main track again. At the estuary edge a healthy young toatoa was admired, but the small patch of hard beech (*Nothofagus truncata*) that has been dwindling over the years, seems to have died out. There are more trees of this species in other parts of the reserve. This ridge was one of the main logging tracks, as we followed an obvious groove still visible in the ground.

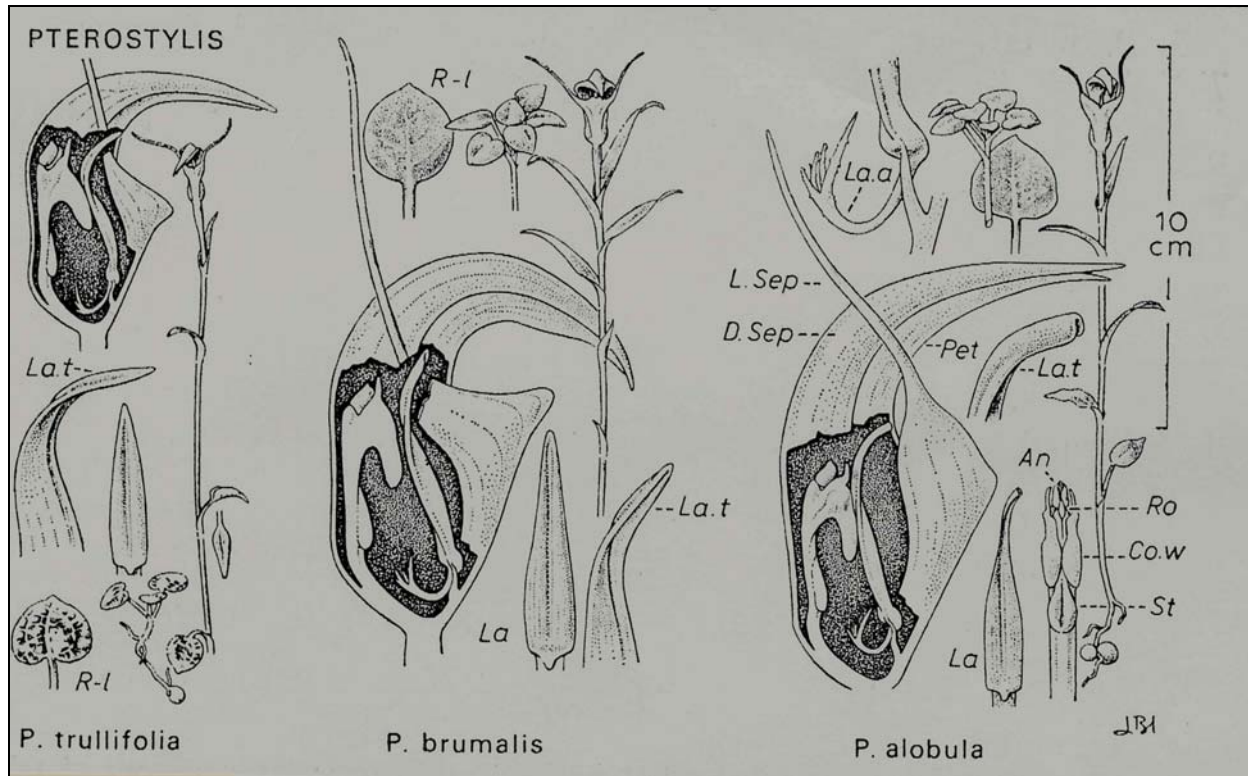
The fungus *Physarum bivalve* was seen; it is on the Data Deficient list, and this was a first-time collection for Auckland. A few fruiting bodies of the cup fungus *Cyathus striatus* were found – these are not commonly seen.

#### Participants

Enid Asquith, Emily Bennett, Jan Butcher, Pamela Carmont, Gwenda Cruickshank, Brian Cumber, Frances Duff, Anne Grace, Leslie Haines, Jane Hart, Peter Hutton, Sandra Jones, Tony Keen, Elaine Marshall, Helen Preston-Jones, Josh Salter, Clive Shirley, Alison Wesley, Petra White, Tony Williams and Maureen Young.

To help clarify the differences between the three "trowel-leaved" species of *Pterostylis* seen in McElroy's Reserve, Bruce Irwin and Manaaki Whenua Press have given permission for the reproduction of his drawing from "Flora of New Zealand Volume II". The immediately obvious feature to aid identification is the width of the flower head, with *P. trullifolia* having a very narrow flower, *P. brumalis* having a broad flower head, and *P. alobula* being in-between. On checking the rosette leaves it can be seen that *P. trullifolia* has very "embossed" leaves, with the veins raised prominently. In the other two species this feature is not so marked. To distinguish between *P. brumalis* and *P. alobula*, look closely at the flowers. In the words of Lucy Moore (Moore, L. B. 1968. Taxonomic notes on New Zealand monocotyledons. *N. Z. Journal of Botany* 6(4):473-492), in *P. brumalis* the lateral sepals diverge at a wide angle forming a U or wide W from the front view, this region abruptly prominent in side view. In *P. alobula*, the lateral sepals diverge to form a V shape from the front view, this region in side view smoothly rounded (hence the name *alobula* – no lobe).

Note: Alternative names for these orchids are *Diplodium trullifolium*, *Diplodium brumale*, and *Diplodium alobulum*.



The trowel-leaved *Pterostylis*. An = anther, Co. w = column wing, D. Sep = dorsal sepal, L. Sep = lateral sepal, La = labellum, La. a = labellum-appendage, La. t = labellum-tip, Pet = petal, R-l = rosette-leaves, Ro = rostellum, St = stigma. Flowers shown with part of side cut away to display labellum and column. (Source: Moore & Edgar, 1976).

### Species list

\* exotic

Compiled on various occasions between 1972 and 1995 by A.E. Esler, R.O. Gardner, W.M. Hamilton, F.P. Hudson, F.J. Taylor and M.E. Young. Fungi and slime moulds recorded by P. White & C. Shirley.

#### Ferns and Fern allies

*Adiantum aethiopicum*  
*Adiantum cunninghamii*  
*Adiantum diaphanum*  
*Adiantum fulvum*  
*Adiantum hispidulum*  
*Adiantum viridescens*  
*Anarthropteris lanceolata*  
*Asplenium bulbiferum*  
*Asplenium gracillimum*  
*Asplenium flaccidum*  
*Asplenium oblongifolium*  
*Asplenium polyodon*  
*Blechnum chambersii*  
*Blechnum discolor*  
*Blechnum filiforme*  
*Blechnum fraseri*  
*Blechnum membranaceum*  
*Blechnum novae-zelandiae*  
*Ctenopteris heterophylla*  
*Cyathea dealbata*  
*Cyathea medullaris*  
*Deparia petersenii* subsp. *congrua*  
*Dicksonia squarrosa*  
*Diplazium australe*  
*Doodia australis*  
*Doodia mollis*

*Doodia australis* x *D. mollis*  
*Gleichenia microphylla*  
*Grammitis ciliata*  
*Grammitis rawlingsii*  
*Histiopteris incisa*  
*Huperzia varia*  
*Hymenophyllum demissum*  
*Hymenophyllum dilatatum*  
*Hymenophyllum flabellatum*  
*Hymenophyllum multifidum*  
*Hymenophyllum rarum*  
*Hymenophyllum revolutum*  
*Hymenophyllum sanguinolentum*  
*Hypolepis distans*  
*Hypolepis lactea*  
*Lastreopsis glabella*  
*Lastreopsis hispida*  
*Lastreopsis microsora*  
*Leptopteris hymenophylloides*  
*Lindsaea linearis*  
*Lindsaea trichomanoides*  
*Lycopodium deuterodensum*  
*Lycopodium volubile*  
*Lygodium articulatum*  
*Microsorium pustulatum*  
*Microsorium scandens*  
*Paesia scaberula*

*Pellaea rotundifolia*  
*Pneumatopteris pennigera*  
*Polystichum neozelandicum*  
*Pteridium esculentum*  
*Pteris macilenta*  
*Pteris saxatilis*  
*Pteris tremula*  
*Pyrrosia eleagnifolia*  
*Rumohra adiantiformis*  
*Schizaea dichotoma*  
*Schizaea fistulosa*  
*Tmesipteris elongata*  
*Tmesipteris lanceolata*  
*Tmesipteris tannensis*  
*Trichomanes elongatum*  
*Trichomanes reniforme*

### Gymnosperms

*Agathis australis*  
*Dacrycarpus dacrydioides*  
*Dacrydium cupressinum*  
*Libocedrus plumosa*  
*Phyllocladus toatoa*  
*Phyllocladus trichomanoides*  
*Podocarpus hallii*  
*Podocarpus totara*  
*Prumnopitys ferruginea*  
*Prumnopitys taxifolia*

### Dicotyledons

*Acaena anserinifolia*  
*Acaena novae-zelandiae*  
*Alectryon excelsus*  
*Alseuosmia macrophylla*  
*Anaphalioides trinervis*  
*Apium prostratum*  
*Avicennia marina* subsp. *australasica*  
*Beilschmiedia tarairi*  
*Beilschmiedia tawa*  
*Beilschmiedia tawaroa*  
*Brachyglottis repanda*  
*Callitriche muelleri*  
*Calystegia sepium*  
*Cardamine debilis*  
*Carmichaelia australis*  
*Carpodetus serratus*  
*Centella uniflora*  
*Clematis cunninghamii*  
*Clematis paniculata*  
*Coprosma arborea*  
*Coprosma areolata*  
*Coprosma grandiflora*  
*Coprosma lucida*  
*Coprosma macrocarpa* subsp. *minor*  
*Coprosma rhamnoides*  
*Coprosma robusta*  
*Coprosma robusta* x *C. propinqua*  
*Coprosma spathulata*  
*Coriaria arborea*  
*Corokia buddleioides*  
*Corynocarpus laevigatus*

*Dichondra repens*  
*Dracophyllum latifolium*  
*Drosera auriculata*  
*Dysoxylum spectabile*  
*Elaeocarpus dentatus*  
*Elatostema rugosum*  
*Euchiton gymnocephalus*  
*Fuchsia excorticata*  
*Galium propinquum*  
*Geniostoma ligustrifolium*  
*Gonocarpus incanus*  
*Griselinia lucida*  
*Haloragis erecta*  
*Hebe stricta* var. *stricta*  
*Hedycarya arborea*  
*Hoheria populnea*  
*Knightia excelsa*  
*Kunzea ericoides*  
*Lagenifera pumila*  
*Laurelia novae-zelandiae*  
*Leptecophylla juniperina*  
*Leptospermum scoparium*  
*Leucopogon fasciculatus*  
*Lobelia anceps*  
*Macropiper excelsa*  
*Melicope simplex*  
*Melicytus macrophyllus*  
*Melicytus micranthus*  
*Melicytus ramiflorus*  
*Metrosideros diffusa*  
*Metrosideros excelsa*  
*Metrosideros fulgens*  
*Metrosideros perforata*  
*Metrosideros robusta*  
*Mida salicifolia*  
*Muehlenbeckia australis*  
*Myoporum laetum*  
*Myrsine australis*  
*Myrsine salicina*  
*Nertera dichondrifolia*  
*Nestegis lanceolata*  
*Nestegis montana*  
*Nothofagus truncata*  
*Olearia furfuracea*  
*Olearia rani*  
*Olearia solandri*  
*Parsonsia capsularis*  
*Parsonsia heterophylla*  
*Passiflora tetrandra*  
*Pittosporum cornifolium*  
*Pittosporum eugenioides*  
*Pittosporum tenuifolium*  
*Plagianthus divaricatus*  
*Pomaderris* aff. *phyllicifolia*  
*Pseudopanax arboreus*  
*Pseudopanax crassifolius*  
*Ranunculus reflexus*  
*Rhabdothamnus solandri*  
*Rubus australis*  
*Rubus cissoides*  
*Samolus repens*

*Schefflera digitata*  
*Selliera radicans*  
*Senecio hispidulus*  
*Senecio minimus*  
*Sophora microphylla*  
*Streblus heterophyllus*  
*Toronia toru*  
*Vitex lucens*  
*Wahlenbergia violacea*  
*Weinmannia silvicola*

### Monocotyledons

*Acianthus sinclairii*  
*Apodasmia similis*  
*Astelia banksii*  
*Astelia solandri*  
*Astelia trinervia*  
*Austrostipa stipoides*  
*Baumea juncea*  
*Baumea rubiginosa*  
*Baumea tenax*  
*Bulbophyllum pygmaeum*  
*Bolboschoenus medianus*  
*Carex breviculmis*  
*Carex dissita*  
*Carex flagellifera*  
*Carex lambertiana*  
*Carex lessoniana*  
*Carex ochrosaccus*  
*Carex virgata*  
*Chiloglottis cornuta*  
*Collospermum hastatum*  
*Cordyline australis*  
*Cordyline banksii*  
*Cordyline australis* x *C. banksii*  
*Cordyline pumilio*  
*Corybas cheesemanii*  
*Corybas macranthus*  
*Corybas oblongus*  
*Corybas rivularis*  
*Corybas trilobus*  
*Cyperus ustulatus*  
*Cyrtostylis oblonga*  
*Danhatchia australis*  
*Dianella nigra*  
*Drymoanthus adversus*  
*Earina autumnalis*  
*Earina mucronata*  
*Echinopogon ovatus*  
*Eleocharis acuta*  
*Eleocharis gracilis*  
*Ficinia nodosa*  
*Freycinetia banksii*  
*Gahnia lacera*  
*Gahnia pauciflora*  
*Gahnia setifolia*  
*Gahnia xanthocarpa*  
*Isolepis cernua*  
*Isolepis inundatus*  
*Isolepis reticularis*  
*Juncus australis*

*Juncus edgariae*  
*Juncus krausii* var. *australiensis*  
*Juncus pallidus*  
*Juncus planifolius*  
*Juncus prismatocarpus*  
*Juncus usitatus*  
*Lepidosperma australe*  
*Libertia grandiflora*  
*Microlaena avenacea*  
*Microlaena stipoides*  
*Microtis unifolia*  
*Oplismenus hirtellus* subsp. *imbecillis*  
*Phormium tenax*  
*Poa anceps*  
*Pterostylis agathicola*  
*Pterostylis alobula*  
*Pterostylis banksii*  
*Pterostylis brumalis*  
*Pterostylis graminea*  
*Pterostylis trullifolia*  
*Rhopalostylis sapida*  
*Ripogonum scandens*  
*Rytidosperma gracile*  
*Schoenoplectus tabernaemontani*  
*Schoenus apogon*  
*Schoenus maschalinus*  
*Schoenus tendo*  
*Thelymitra longifolia*  
*Thelymitra pauciflora*  
*Triglochin striata*  
*Typha orientalis*  
*Uncinia banksii*  
*Uncinia distans*  
*Uncinia uncinata*  
*Winika cunninghamii*

### Lichens

*Chrysothrix candelaris*  
*Cladonia* sp. (? *Subulata*)  
*Ramalina celastri*  
*Rimelia reticulata*  
*Usnea* sp.

### Bryophytes

*Camptochaete arbuscula*  
*Camptochaete pulvinata*  
*Cyathophorum bulbosum*  
*Dicranoloma robustum*  
*Homalia falcifolia*  
*Hypnodendron arcuatum*  
*Hypopterygium novae-zelandiae*  
*Leptostomum macrocarpum*  
*Leucobryum candidum*  
*Orthorhyncium elegans*  
*Papillaria flavo-limbata*  
*Ptychomnium aciculare*  
*Rhyncostegium tenuifolium*  
*Sematophyllum amoenum*  
*Thuidium laeviuscula*

## Fungi

*Aleurodiscus ochraceoflavus*  
*Auricularia cornea*  
*Calvatia cyathiformis*  
*Cortinarius porphyroideus*  
*Crucibulum laeve*  
*Cyathus striatus*  
*Cyclomyces tabacinus*  
\**Favolaschia calocera*  
? *Fomes hemitephrus*  
*Ganoderma* sp. (? *australe*)  
*Hericium coralloides*  
*Hygrophorus involutus*  
*Ileodictyon cibarius*  
*Morganella pyriformis*

*Nidula niveotomentosa*  
*Plectania* sp.  
*Pluteus* sp.  
*Russula acrolamellata*  
*Scutellinia* sp.  
*Trichoglossum hirsutum*  
*Tylopilus formosus*

## Slime moulds

*Didymium squamulosum*  
*Physarum bivalve*  
*Physarum globuliferum*

## Reference

Moore, L.B.: Edgar, E. 1970: Flora of New Zealand. Vol. II. Wellington, Government Printer.

## Field Trip: Craig's Bush, Pollok, on the Awhitu Peninsula. 18/09/04

Tricia Aspin

On Saturday, 18 September 2004, seventeen members of the Auckland Botanical Society, joined by landowners Ian and Pixie Craig, gathered at Barthow Road at 10 a.m. and wrapped up warmly against the brisk westerly breeze. A short walk along the old roadway took us to the bush area. The site comprises approximately six hectares on the steep southern side of a ridge and includes bushy slopes, dripping banks and sandstone cliffs, small watercourses and marshy areas. Several of the more unusual plants for the Awhitu Peninsula are to be found here.

Members of the field trip:

Ian and Pixie Craig (landowners), Chris Ashton, Tricia Aspin (leader), Steve Benham, Ewen Cameron, Helen Cogle, Annette Lindsay, Alistair MacArthur, Elaine Marshall, John Millett, Juliet Richmond, Pat Seyb, Clive Shirley, Shirley Tomlinson, Petra White, Mike Wilcox, Tony Williams and Maureen Young.

The Craigs farm large bullocks which have access to the bush, though the steepness of the terrain allows for some disturbance without too much damage overall. Our visit coincided with the heaviest browsing by stock over the winter months.

Forest cover is mixed broadleaved trees with some conifers present. There is a predominance of kohekohe (*Dysoxylum spectabile*), tawa (*Beilschmiedia tawa*), puriri (*Vitex lucens*), karaka (*Corynocarpus laevigatus*) and mangeao (*Litsea calicaris*). Mangeao was in flower, and so was kowhai (*Sophora chathamica*) much to the delight of the many tui. There is a notable abundance and variety of ferns and native herbs. The genus *Asplenium* is especially well represented with one of the region's best populations of *Asplenium hookerianum*. The native chickweed (*Stellaria*

*parviflora*) is common. I have not noticed this species elsewhere on the peninsula.

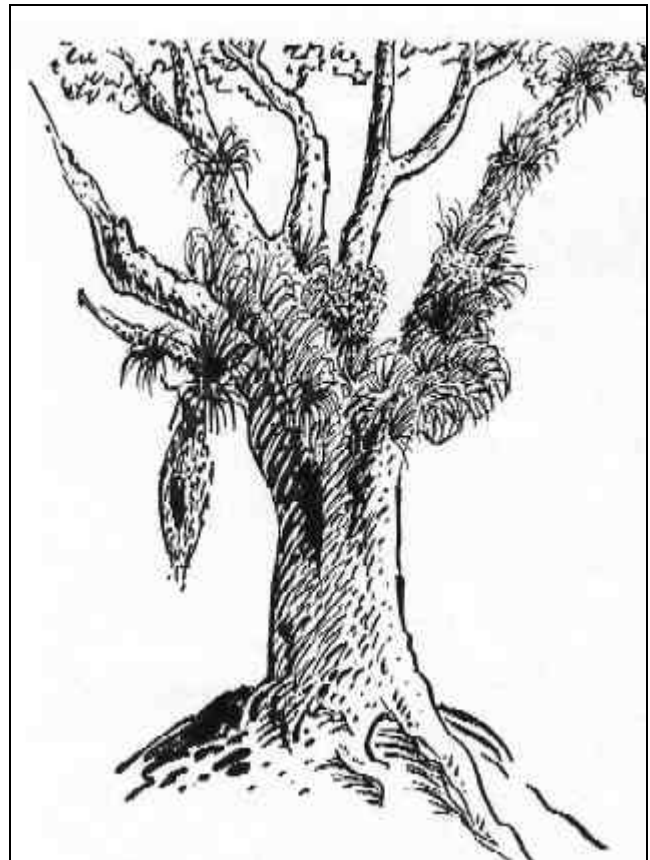


Figure 1. Pohutukawa with *Collospermum hastatum*.

After leaving the old road we followed cattle tracks through the grassed area past some large, epiphytic-laden pohutukawas (*Metrosideros excelsa*) (Figure 1) before dropping down to the lower part of the bush slope where serious botanising began. Our presence