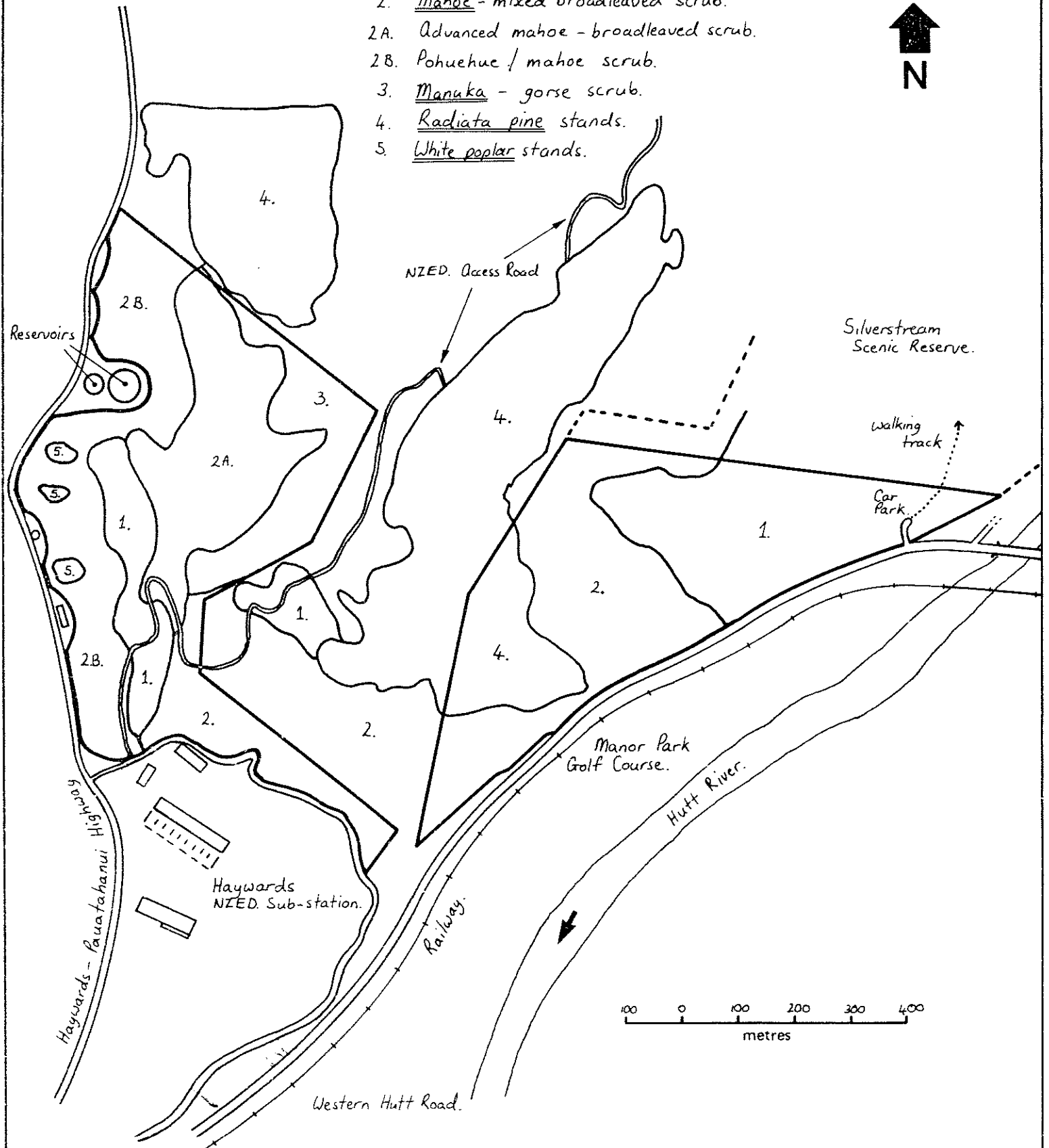


1. Tawa forest.
2. Mahoe - mixed broadleaved scrub.
- 2A. Advanced mahoe - broadleaved scrub.
- 2B. Pohuehue / mahoe scrub.
3. Manuka - gorse scrub.
4. Radiata pine stands.
5. White poplar stands.



# Keith George Memorial Park Scenic Reserve

Area: 60.5423 ha



FIFTH GEORGE MEMORIAL PARK for: <input checked="" type="checkbox"/> ferns <input checked="" type="checkbox"/> bush <input checked="" type="checkbox"/> scrub/tusssock etc <input type="checkbox"/> wetland <input type="checkbox"/> plants <input checked="" type="checkbox"/> animals <input type="checkbox"/> geology/soil <input type="checkbox"/> history/prehistory <input type="checkbox"/> water supply							<b>GRID</b> REF R 27 770 048 & 762 048	
<b>LOCATION</b> South of Silverstream bridge, Western Hutt Road, and near Haywards Sub-station, Haywards Road.							<b>AREA ha/acc</b> 60.5428 <b>L.D. No.</b> <b>STATUS</b> Scenic <b>RES sub-Cttee</b> <b>CONTROL</b> Wellington City Council	
<b>ACCESS</b> From carpark just south of Silverstream Bridge and from New Zealand Electricity Department access road west of Haywards Substation.							<b>GAZETTED</b> 1982/3626 <b>RESERVED</b> <b>HISTORY</b>	
<b>OUTLINE &amp; TOPO</b> Reserve in two portions; one, adjoining the southern boundary of Silverstream Scenic Reserve consists of part of a steep, east facing slope formed by the Wellington Fault. The other portion lies in a steep sided gully immediately north of the Haywards Substation.							<b>AIR PHOTO</b> SN 5497 H/ 15 <b>date</b> 6.10.80	
<b>SURROUNDINGS</b> Pine plantations to the north, Haywards Substation, State Highway 2, Haywards Road and regenerating scrub on the other boundaries.							<b>nearby town</b> .2 km Heretaunga <b>nearest reserve</b> .0 km Silverstream (adjacent) <b>public road</b> 0 km State Highway 2 <b>sea (km)</b> 9 Porirua Harbour <b>ALTITUDE m/MSL</b> 70 - 200 <b>ASPECT</b> Predominantly east <b>RAIN mm/xx (approx)</b> 1290 <b>NAT FERTILITY</b> Low-medium	
<b>GEOLOGY</b> Greywacke. Steep slope on Wellington Fault scarp and associated small side valley.								
<b>SPM</b> Greywacke colluvium.								
<b>SOIL</b> Ruahine steepland soils.								
<b>DRAINAGE</b> Very good.								

RES		NOT		MAIN HABITATS and FEATURES										%	area	native		ex	regen	NAT 1	trend	exotics		
DI	NT	DI	NT												1 <sup>o</sup>	2 <sup>o</sup>	ind							
✓	✓	✓	✓	1.	Tawa forest on steep colluvial slopes.																			
✓	✓	✓	✓	2.	Mahoe - mixed broadleaved scrub on steep colluvial slopes.																			
✓	✓	✓	✓	2a.	Advanced mahoe - mixed broadleaved scrub.																			
✓	✓	✓	✓	2b.	Pohuehue/mahoe - mixed broadleaved scrub.																			
✓	✓	✓	✓	3.	Manuka - gorse scrub.																			
✓	✓	✓	✓	4.	Pinus radiata stands.																			
✓	✓	✓	✓	5.	White poplar/mahoe-pohuehue-tutu scrub.																			
					1.	Tawa forest up to 22m tall with occasional titoki and hinau and some kamahi at higher elevations. Some mature mahoe and tree fuchsia may be present in gullies. The well developed understorey includes kawakawa, rangiora, heketara, kanono and hangehange. The floor cover consists of litter, seedlings of canopy and understorey species, hookgrass and ferns. This type includes areas of younger tawa forest (predominantly secondary) with rewarewa often common.																		
					2.	Mahoe dominated broadleaved scrub up to 6m tall. On the fault scarp above the motorway the main associated species are rangiora and five finger. Occasional patches of gorse and bracken are present as well as small remnant stands of beech, each consisting of a few trees only.																		
					2a.	As above but more advanced with species such as karamu, mamaku and hangehange more prominent and with the addition of emergent tree species such as rewarewa and hinau.																		
					2b.	With the addition of pohuehue climbing over the mahoe and tutu common throughout. Present on the steep slope below Haywards Road.																		
					4.	Mature pine stands often with broadleaved scrub dominated by mahoe-rangiora-five finger on margins or areas where pines are self sown and hence trees are more widely spaced.																		
					5.	On steep slopes below Haywards Road.																		

**CONDITION** Overall good with areas of secondary scrub regenerating nicely. Some blackberry on periphery along NZED access road from Haywards Substation.

**FENCING** Not necessary under present boundaries. If reserve was ever extended it might be necessary.

**PRIORITY** N/A

**RATING 0-10**

**SCIENTIFIC** 6... Southern-most extent of beech on the western side of the North Island.

**SCENIC** 6... Scenic backdrop to residential area. Viewed by rail and road travellers daily.

**RECREATION** A... Small carpark a popular lunch spot for motorists on SH 2. Walking track through northern corner of reserve.

**CONCLUSIONS and RECOMMENDATIONS**

A worthwhile area of regenerating native bush and tawa forest close to large residential areas and viewed daily by rail and road commuters.

The reserve is in two physically separate portions, the northern one contiguous with Silverstream Scenic Reserve. Efforts should be made to rationalise reserve boundaries by obtaining the land between the two portions as well as extending to include the complete slope up to the NZED access road. This would include the remainder of the large stand of pines in the reserve which should either be logged for saw timber or firewood, or felled and left to waste.

The reserve contains the most southern beech trees on the west side of the North Island.

- Culliford, P.J. 1954. Some observations on the interaction between *Nothofagus truncata* and Broadleaf - Podocarp communities in Keith George Memorial Park, Silverstream. MSc. thesis Victoria University.
- Druce, A.P. and Atkinson, I.A.E. 1959. Forest variation in the Hutt Catchment. Proc NZ Ecol. Soc. 6:41-45.
- McQueen D.R., 1971. The use of Keith George Park and Silverstream Reserve for teaching and research by the Botany Department, VUW, Unpublished report.
- Druce, A.P. 1980. Indigenous vascular plants in Silverstream Bush, Hutt Valley. Unpublished Botany Division, DSIR Report, 5 pp.

REFERENCES

1/2 area	SUMMARY	HABITATS													ORGANISMS														
		WATER / SHORE			veg			substrate			poll-ution		access		INFER		OBSERVED												
		large	small	several	hill/cut/stable	overhanging	emergent	herbacc.	cliff	rock	stony	s+shingle	mud	organic	rubbish	eutrophic	foot	boat	car	a - adjoins reserve	N	S	M	H	L	M	H initials		
23.5	tall conifer <sup>1</sup> forest/trees																												
66.9	conifer <sup>2</sup> forest/trees																												
	beach forest/trees																												
	BL <sup>3</sup> forest/trees																												
	scrub/shrubs < 6m																												
	tall tussocks/grassland																												
	short tussocks/grassland																												
	grassland/grasses																												
	sedge/land/sedges																												
	rushland/rushes/raupo																												
	herbland/herbs																												
	"tussock" herbland <sup>4</sup>																												
	fernland/ferns																												
	"moos" land																												
	brecken																												
3.0	exotic grassland <sup>5</sup>																												
6.6	exotic herbland/woodland																												
	exotic scrub/shrubs																												
	exotic forest/trees																												
	introduced "native" cover																												
	bag/swamp/pukiki																												
	marsh sw/fw																												
	mudflat sw/fw																												
	bluff/rock																												
	bluffs/rocks in bush																												
	waterfall																												
	cave/gorge																												
	gravel habitat/scree																												
	dune/sand																												
	limestone																												
	ultrabasics																												
	geological site																												
	breeding ground																												
	rare/interesting animals																												
	rare/interesting plants																												
	historic site																												
	historic building																												
	prehistoric site																												
	camp/middan/pits																												
	terraces/earthworks																												
	burial/tapu																												
100																													

<sup>1</sup> tall conifer: kahikatea, kauri, matai, miro, rimu, totara    <sup>2</sup> remaining 11 tree-sized spp    <sup>3</sup> broadleaved    <sup>4</sup> e.g. flax    <sup>5</sup> incl. rough grassland, pasture etc

Combined species list for Keith George Memorial Park and Silverstream Scenic Reserves.

TREES AND SHRUBS

Native

*Alectryon excelsus*  
*Aristotelia serrata*  
*Beilschmiedia tawa*  
*Brachyglottis repanda*  
*Carmichaelia odorata*  
*Carpodetus serratus*  
*Cassinia leptophylla*  
*Coprosma colensoi*  
*C. foetidissima*  
*C. grandifolia*  
*C. lucida*  
*C. propinqua*  
*C. rhamnoides*  
*C. robusta*  
*C. rotundifolia*  
*C. propinqua* X *C. robusta*  
*Cordyline australis*  
*C. banksii*  
*Coriaria arborea*  
*Cyathodes juniperina* var.  
*Dacrydium cupressinum*  
*Elaeocarpus dentatus*  
*E. dentatus* X *E. hookerianus*  
*Fuchsia excorticata*  
*F. excorticata* X *F. perscandens*

*Gaultheria antipoda*  
*Geniostoma rupestre* var.  
*Griselinia lucida*  
*Hebe stricta* var. *atkinsonii*  
*H. stricta* var. *macroura*  
*Hedycarya arborea*  
*Knightia excelsa*  
*Laurelia novae-zelandiae*  
*Leptospermum ericoides*  
*L. scoparium*  
*Leucopogon fasciculatus*  
*Lophomyrtus bullata*  
*Macropiper excelsum*  
*Melicope simplex*  
*Melicytus ramiflorus*  
*Metrosideros robusta*  
*Mida salicifolia*  
*Myrsine australis*  
*M. salicina*  
*Nestegis cunninghamii*  
*N. lanceolata*  
*Nothofagus solandri* var. *solandri*  
*N. truncata*  
*N. truncata* X *N. solandri*

*Olearia rani*  
*O. solandri*  
*Paratrophis microphylla*  
*Pennantia corymbosa*  
*Pittosporum eugenioides*  
*Plagianthus betulinus*  
*Podocarpus dacrydioides*  
 (= *Dacrycarpus dacrydioides*)  
*P. ferrugineus* (= *Prumnopitys ferruginea*)  
*P. spicatus* (= *Prumnopitys taxifolia*)  
*P. totara*  
*Pseudopanax arboreus*  
*P. crassifolius*  
*Pseudowintera colorata*  
*Rhopalostylis sapida*  
*Schefflera digitata*  
*Solanum aviculare*  
*Sophora microphylla*  
*Syzygium maire*  
*Urtica ferox*  
*Weinmannia racemosa*

Adventive

*Buddleia davidii*  
*Chamaecytisus palmensis*  
*Cotoneaster* sp.  
*Crataegus monogyna*

*Cupressus macrocarpa*  
*Cytisus scoparius*  
*Eucalyptus globulus*  
*Pinus radiata*

*Populus alba*  
*Rosa rubiginosa*  
*Ulex europaeus*

CLIMBERS, LIANES ETC.

Native

*Calystegia tuguriorum*  
*Clematis foetida*  
*C. paniculata*  
*Freycinetia baueriana* ssp. *banksii*  
*Fuchsia perscandens*  
*Metrosideros colensoi*

*Metrosideros diffusa*  
*M. fulgens*  
*M. perforata*  
*Muehlenbeckia australis*  
*Parsonsia capsularis* var. *capsularis*

*Parsonsia heterophylla*  
*Passiflora tetrandra*  
*Ripogonum scandens*  
*Rubus cissoides*  
*R. schmidelioides*

Adventive

*Calystegia silvatica*  
*Lonicera japonica*

*Rubus fruticosus*  
*R. laciniatus*

*Senecio mikanoides*

GRASSES, RUSHES AND LIKE PLANTS

Native

*Carex dipsacea*  
*C. lessoniana*  
*C. secta*  
*C. virgata*  
*Cortaderia fulvida*  
*Cyperus ustulatus*  
*Dichelachne crinita*  
*Eleocharis acuta*

*Gahnia pauciflora*  
*G. setifolia*  
*Juncus gregiflorus*  
*J. planifolius*  
*J. sarophorus*  
*Luzula picta*  
*Microlaena stipoides*  
*Poa anceps*

*Rytidosperma gracile*  
*Schoenus maschalinus*  
*Scirpus pottsii* (= *Isolepis pottsii*)  
*S. prolifer* (= *Isolepis prolifer*)  
*Uncinia angustifolia*  
*U. banksii*  
*U. scabra*  
*U. uncinata*

Adventive

*Agrostis tenuis*  
*Anthoxanthum odoratum*  
*Dactylis glomerata*

*Festuca arundinacea*  
*Holcus lanatus*  
*Juncus articulatus*

*Lolium perenne*  
*Rytidosperma penicillatum*  
*Vulpa bromoides*

HERBS

Native

*Acaena anserinifolia*  
*A. novae-zelandiae*  
*Astelia fragrans*  
*A. solandri*  
*Australina pusilla*  
*Bulbophyllum pygmaeum*  
*Caladenia catenata*  
*Cardamine* sp. (*C. debilis* agg.)  
 ("Narrow Petal")  
*C. sp.* (*C. debilis* agg.)  
 ("Glossy Leaf")  
*Centella uniflora*  
*Chiloglottis cornuta*  
*Collospermum hastatum*  
*C. microspermum*

*Corybas oblongus*  
*C. trilobus*  
*Cotula coronopifolia*  
*Dendrobium cunninghamii*  
*Dianella nigra*  
*Dichondra* sp.  
*Drosera peltata* ssp. *auriculata*  
*Drymoanthus adversus*  
*Earina autumnalis*  
*E. mucronata*  
*Epilobium alsinoides*  
*E. brunnescens*  
*E. nummularifolium*  
*Euphrasia cuneata*  
*Galium propinquum*

*Geranium microphyllum*  
*Glossostigma elatinoides*  
*Gnaphalium gymnocephalum*  
*G. involucreatum*  
*G. sphaericum*  
*Gratiola sexdentata*  
*Helichrysum filicaule*  
*Hydrocotyle americana*  
*H. elongata*  
*H. moschata*  
*Lagenifera pumila*  
*L. strangulata*  
*Lemna minor*  
*Libertia grandiflora*  
*Limosella lineata*

HERBS (Continued)

*Microtis unifolia*  
*Myriophyllum propinquum*  
*Nertera setulosa*  
*Orthoceras strictum*  
*Oxalis exilis*  
*Prasophyllum nudum*  
*Pseudognaphalium luteo-album*

*Pterostylis banksii*  
*P. graminea*  
*Raoulia tenuicaulis*  
*Ranunculus hirtus*  
*Senecio hispidulus*  
*S. lautus*

*S. minimus*  
*Stellaria parviflora*  
*Thelymitra longifolia*  
*T. sp.*  
*Urtica incisa*  
*Wahlenbergia marginata*

Adventive

*Anagallis arvensis*  
*Brassica rapa*  
*Carduus tenuiflorus*  
*Cirsium vulgare*  
*Conium maculatum*  
*Conyza sp.*  
*Cotula australis*  
*Crepis capillaris*  
*Crococsmia X crocosmiiflora*  
*Cyperus eragrostis*  
*Digitalis purpurea*  
*Foeniculum vulgare*  
*Galinsoga parviflora*

*Galium aparine*  
*Geranium robertianum*  
*Hypericum androsaemum*  
*Lathyrus latifolius*  
*Linum marginale*  
*Lotus pedunculatus*  
*Matricaria inodora*  
*M. matricarioides*  
*Mimulus guttatus*  
*Orobanche minor*  
*Parentucellia viscosa*  
*Plantago lanceolata*  
*P. major*

*Prunella vulgaris*  
*Ranunculus repens*  
*Rumex acetosella*  
*R. obtusifolius*  
*Silene gallica*  
*Sisyrinchium iridifolium*  
*Solanum nigrum*  
*Tradescantia fluminensis*  
*Trifolium dubium*  
*T. pratense*  
*T. repens*  
*Verbascum thapsus*  
*Vicia sativa*

FERNS AND ALLIES

Native

*Alsophila cunninghamii* (= *Cyathea cunninghamii*)  
*A. smithii* (= *C. smithii*)  
*A. tricolor* (= *C. dealbata*)  
*Anarthropteris lanceolata*  
*Asplenium bulbiferum*  
*A. flaccidum*  
*A. hookerianum*  
*A. oblongifolium*  
*A. polyodon*  
*A. bulbiferum* X *A. hookerianum*  
*Blechnum chambersii*  
*B. discolor*  
*B. filiforme*  
*B. fluviatile*  
*B. minus*  
*B. sp. (a)* (*B. capense* agg.)  
(common sp.)  
*B. sp. (b)* (*Lomaria latifolia*)  
*B. sp. (b)* X *B. sp. (a)*  
*Cardiomanes reniforme*

*Ctenopteris heterophylla*  
*Dicksonia squarrosa*  
*Grammitis billardieri*  
*G. ciliata*  
*Histiopteris incisa*  
*Hymenophyllum bivalve*  
*H. demissum*  
*H. dilatatum*  
*H. flabellatum*  
*H. flexuosum*  
*H. multifidum*  
*H. rarum*  
*H. revolutum*  
*H. sanguinolentum*  
*H. scabrum*  
*Hypolepis rufobarbata*  
*H. tenuifolia*  
*Lastreopsis glabella*  
*L. hispida*  
*L. velutina*  
*Leptopteris hymenophylloides*

*Lindsaea trichomanoides*  
*Lycopodium scariosum*  
*L. varium*  
*L. volubile*  
*Paesia scaberula*  
*Pellaea rotundifolia*  
*Phymatosorus diversifolius*  
*P. scandens*  
*Pneumatopteris pennigera*  
*Polystichum richardii*  
*P. silvaticum*  
*P. vestitum*  
*Pteridium esculentum*  
*Pteris macilenta*  
*Pyrosia serpens*  
*Rumohra adiantiformis*  
*Sphaeropteris medullaris*  
*Tmesipteris elongata*  
*T. tannensis*  
*Trichomanes endlicherianum*  
*T. venosum*

BIRDS

bellbird  
blackbird  
fantail  
greywarbler

white-backed magpie  
N.Z. pigeon  
silvereye

thrush  
tui  
yellowhammer