

SUGAR LOAF RESERVE

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The Lyttelton Times of the 16th July, 1921 reported as follows :

'Mr. R.M. Laing and Professor A. Wall have completed a botanical survey of the Sugar Loaf Reserve, and have prepared a list of the native flowering plants and ferns there. The reserve covers 273 acres on the Cashmere Hills, near the Kiwi Tea House. On the reserve there are about seventy acres of native bush, mostly young growth. Mr. H.G. Ell, at whose request the survey was made, is arranging to have the list of plants posted up in the Kiwi Tea House. He proposes to have it illuminated and to have on it drawings of some of the flowers. The reserve, the name of which is Te Heru o Kahukura, is in charge of Mr. T. O'Shea, who is caretaker of the Coronation Hill Scenic Reserve, on which the tea-house stands.'

Then follows the list of native flowering plants and ferns prepared by the botanists. The report does not say how much of the reserve or how thoroughly the reserve was examined by the botanists. Nor is the time of the year when the examination took place mentioned.

My wife and I decided to bring the botanists list up to date. We made our first excursion on the 22nd September, 1982. Twenty five visits were made the last one being on the 14th April, 1984.

The following map shows the boundaries of the reserve which the Department of Lands and Survey state contains 110.1757 hectares or 272 acres 1 rood.

Most of it faces Lyttelton Harbour. As it is extremely precipitous country, we have not been able to cover all the surface of the reserve. The area is of an irregular shape running from the summit of Sugar Loaf, on which is erected the TV mast, down almost to the Governors Bay - Lyttelton road. Much is leased to a farmer and used for grazing.

I am advised that the bush areas were fenced in 1966, well after the

botanists' survey, and that much regeneration has since taken place. Two walking tracks have been constructed through the reserve from the Sign of the Kiwi to a parking place on the Summit road. Mitchells track was formed first, Gilpins track was constructed later. A further rough track leads from the parking place mentioned to the eastern boundary on which is built a very substantial dry stone wall.

The botanists' list comprises 127 species. Included are 2 species not in the Sugar Loaf Reserve and 3 species that are now acknowledged to be adventives. The number of native species recorded by them from the reserve totals 122 species.

The following table sets out the native species recorded by us from the various parts of the reserve. Plant names have been brought up to date.

Species marked \* were recorded by the botanists.

Column headings are :-

G Grasslands  
M Mitchells track  
G Gilpins track  
K Bush gully near Sign of the Kiwi  
Y Far eastern bush gully  
H Rocky headland leading off Mitchells track  
B Other bush gullies

Native Plants found on Sugar Loaf Reserve:

	G	M	G	K	Y	H	B
Arthropodium candidum	x				x		
* Astelia fragrans		x	x	x	x		x
* Carex breviculmis	x						
* Carex colensoi	x						
Carex forsteri				x			
Carex flagellifera	x						
Caladenia catenata		x	x				
* Cordyline australis	x	x	x	x	x		x
* Cortaderia richardii		x	x	x			
Corybas macranthus		x	x				

	G	M	G	K	Y	H	B
* Dichelachne crinita	x						
Eleocharis acuta	x						
* Elymus rectisetus	x	x	x		x	x	
* Festuca novae-zelandiae	x						
Festuca petriei	x						
Hypoxis hookeri	x						
* Hierochloa redolens	x	x					
Juncus australis	x						
Juncus distegus	x	x					
Juncus gregiflorus	x	x					
* Lachnagrostis sp.	x						
* Libertia ixioides	x	x	x	x	x		x
* Luzula banksiana var. orina	x	x	x		x		x
Luzula rufa var. rufa			x				
Microtis unifolia	x	x					
Microlaena avenacea							x
Microlaena polynoda							x
* Phormium tenax	x	x	x	x	x		x
* Poa caespitosa	x	x	x			x	
* Poa colensoi	x						
* Poa matthewsii var. tenuis		x	x		x		
Pterostylis areolata			x				
Pterostylis graminea var. rubricaulis		x	x	x	x		
Pterostylis montana	x						
Rytidosperma clavatum	x						
* Rytidosperma pilosum			x				
* Rytidosperma racemosum	x						
* Rytidosperma unarede					x		
* Thelymitra longifolia	x	x	x		x		
* Uncinia leptostachya	x	x	x	x	x		x
Acaena anserinifolia	x	x	x	x	x		
Aciphylla subflabellata	x	x					
Anogramma leptophylla						x	
* Aristotelia serrata		x				x	x
* Asplenium bulbiferum ssp. gracillimum	x	x	x	x			x
* Asplenium flabellifolium	x	x	x	x			x

	G	M	G	K	Y	H	B
* Discaria toumatou	x	x	x		x	x	
Einadia (Chenopodium) allanii	x						
Epilobium brunnescens		x				x	
Epilobium billardierianum ssp. cinereum		x				x	
* Epilobium komarovianum						x	
* Epilobium nummularifolium	x	x					
* Epilobium pubens		x	x				
* Fuchsia excortica		x	x	x	x		x
Fuchsia perscandens	x					x	x
* Galium propinquum	x				x		
* Geranium microphyllum	x	x	x	x	x		
Gnaphalium audax			x		x	x	
* Gnaphalium luteo-album		x					
Gnaphalium involucreatum	x						
* Griselinia littoralis	x	x	x	x	x	x	x
* Haloragis erecta ssp. erecta	x						
* Hebe lavaudiana						x	
* Hebe salicifolia			x	x		x	x
* Hebe strictissima	x	x	x				x
* Hedycarya arborea		x				x	
* Helichrysum aggregatum	x	x	x			x	x
Helichrysum bellidioides	x	x	x		x	x	
* Helichrysum filicæule		x			x		
* Hcheria angustifolia		x	x		x		x
Hoheria sexstylosa							x
Hydrocotyle elongata		x	x				x
Hydrocotyle heteromeria			x				
Hydrocotyle microphylla	x						
Hydrocotyle moschata	x	x					
Hydrocotyle novae-zelandiae			x				
* Hymenanthera crassifolia	x	x			x	x	
* Ileostylus micranthus							x
Lagenifera pumila	x		x		x		x
* Leptospernum (Kunzea)ericoides	x	x	x		x	x	x
* Leptospernum scoparium	x	x					
Leucopogon fasciculatus		x	x			x	

	G	M	G	K	Y	H	B
Leucopogon fraseri	x	x					
* Linum monogynum	x	x				x	x
* Macropiper excelsum							x
* Melicope simplex		x	x	x		x	x
* Melicytus ramiflorus		x	x	x	x		x
Metrosideros diffusa			x				
* Muehlenbeckia australis	x	x		x		x	x
* Muehlenbeckia complexa	x	x	x	x		x	
Myosotis pygmaea var. pygmaea		x				x	
* Myoporum laetum			x			x	x
* Myrsine australis	x	x	x	x	x		x
* Olearia paniculata	x	x	x	x	x	x	x
Ophioglossum coreaceum	x	x					
* Oxalis exilis	x	x	x		x		
* Paratrophis microphylla							x
* Parsonsia capsularis var. rosea		x	x	x	x		x
* Parsonsia heterophylla		x	x	x		x	x
Pellaea rotundifolia					x	x	x
* Pennantia corymbosa				x	x	x	x
* Phymatosorus diversifolius	x	x	x	x	x	x	x
* Polystichum richardii	x	x	x	x	x	x	x
* Polystichum vestitum					x	x	x
* Plagianthus regius		x		x			x
* Podocarpus spicatus		x					x
* Podocarpus totara		x	x				x
* Pittosporum eugenioides		x	x		x		x
* Pittosporum tenuifolium		x	x	x	x		x
Pseudopanax crassifolius	x	x	x			x	x
* Pseudopanax arboreus		x	x	x			x
* Pseudowintera colorata					x	x	x
* Pteridium esculentum	x	x	x	x	x	x	x
* Pyrosia serpens							x
* Ranunculus hirtus	x	x	x		x		x
* Ranunculus 'multiscapus'		x					
* Raoulia glabra	x	x	x				
Raoulia hookeri			x				

	G	M	G	K	Y	H	B		
Raoulia monroi	x								
* Ripogonum scandens					x				
* Rubus cissoides	x	x	x	x	x	x	x		
* Rubus schmidelioides var. subpauperatus		x							
Rubus squarrosus	x	x					x		
* Schefflera digitata			x	x			x		
Schizeilema trifoliatum	x				x	x			
* Senecio lautus ssp. lautus			x			x			
Senecio quadridentatus	x				x				
* Senecio saxifragoides	x	x	x		x	x			
Solanum laciniatum							x		
* Sophora microphylla	x	x	<del>x</del>		x				
* Sophora prostrata						x	x		
Stackhousia minima	x								
* Stellaria parviflora	x	x	x	x	x		x		
* Tillaea sieberiana		x							
* Urtica ferox	x	x	x	x	x	x	x		
Viola cunninghamii	x	x			x	x			
* Viola filicaulis		x				x			
* Wahlenbergia gracilis	x	x			x	x			
105	Number of species:	175	95	106	85	45	61	47	75

The following species were listed by the botanists but were not seen by us :-

- Carex virgata - damp gully
- Earina autumnalis - in rocky clefts
- Festuca novae-zelandiae var. grandiflora - on rocks
- Rubus schmidelioides - edge of bush
- Rubus australis - bush
- Scirpus nodosus - damp ground in open
- Scleranthus biflorus - in the open
- Uncinia uncinata - in the bush
- Acaena novae-zelandiae - outside bush
- Alectryon excelsum - in bush
- Asplenium oblongifolium (lucidum) - common

<u>Asplenium flaccidum</u>	-	on trees
<u>Asplenium richardii</u>	-	common
<u>Cotula minor (haastii)</u>	-	dry banks seaward side
<u>Epilobium rotundifolium</u>	-	in moist places
<u>Lagenifera petiolata</u>	-	on rocks etc.
<u>Lophomyrtus obcordata</u>	-	in bush

A few comments on the above are necessary. A confusion in the naming may account for 6 of these species not being found.

Rubus australis: I understand that this species has not been recorded by others on the Port Hills. Rubus squarrosus was seen by us but was not mentioned by the botanists.

Acaena novae-zelandiae: Acaena anserinifolia is not mentioned though plants are common and widespread.

Asplenium oblongifolium (lucidum): If it was common in 1921 it is surprising that we saw no plants at all. This species is not recorded by A. Wall in his Ferns of the Port Hills, 1918 or in his Botany of Christchurch as growing on the Port Hills. It was not recorded by Kelly in his Sugar Loaf list.

Asplenium richardii: Identical comments to those on A. oblongifolium can be made. The only finding of this species on the Port Hills known to me is one by Professor John Lovis which was not in the reserve. A. terrestre grows abundantly in the reserve.

Cotula minor (haastii): No record of the widespread and common Cotula squallida ssp. mediana was made by the botanists.

Lagenifera petiolata: Unlisted are the numerous plants of Lagenifera pumila. Kelly records only Lagenifera pumila.

Alectryon excelsum: Both H.G. Gilpin and L.W. McCaskill have informed me that they have seen a specimen of this species down at the bottom of the bush gully. A. Wall in his Botany of Christchurch comments on this species:- 'grows in the bush next to Sugar Loaf reserve going eastwards'. It is curious that he does not mention it growing in the Sugar Loaf Reserve.

Perhaps some of my readers will continue the search and find the missing plants. I feel that other native species are there for the finding.

COMMENTS:

Mr. H.G. Gilpin has informed me that he has seen a specimen of Eleocharpus dentatus in the main bush gully.

The greater list of species recorded by us, 175, as against the botanists' 122, is probably due to our spending much more time in the reserve than the two very busy botanists could afford.

On nearly all of our visits we met people walking on one or both of the tracks. All appeared to be enjoying their walk. It is pleasing to note that after many years of constant use the tracks still enable the walker to view a large number of native plants.

ACKNOWLEDGEMENTS:

First I have to thank Professor John Lovis for bringing to my attention the article printed in the Lyttelton Times. His kindness has led my wife and me to enjoy many happy days fossicking in the reserve. To Mr. Hugh Wilson go my thanks for passing on to me some of his wide knowledge of plants and for naming various specimens. Max Visch had the pleasure of finding Raoulia hookeri during a Botanical Society outing.

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RESEARCH TOPICS

Recently I was shown a special scientific supplement of the News-bulletin of The Entomological Society of New Zealand Inc., 'Entomological Research Topics'. There are 187 entries under a variety of headings and covering a wide field. Many relate to the relationships between insects and plants.

At a recent symposium on 'Research on the Vegetation of N.Z.', held at Lincoln, it was quickly apparent that there are still a large number of botanical topics that need further investigation, some complex but many requiring only simple observations.

Perhaps, at some stage the Journal may be able to publish a list of botanical research topics, but in the meantime we offer the pages of the Journal for the advertising of topics which require investigation and for publishing the results of such investigations. (Ed.)

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