

TABLE I

Flowering times of cultivated native plants.

	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
<i>Ranunculus insignis</i>	XX	..	..	..	..	..	..	..	..	..
<i>Aciphylla monroi</i>	.X	XX	..	..	..	..	..	..	..	..
<i>Ranunculus hirtus</i>	.X	XX	..	..	..	..	..	..	..	..
<i>Brachycome sinclairii</i>	.X	XX	XX	XX	XX	..	..	..	..	..
<i>Ranunculus sp.</i>	..	XX	XX	XX	X.	..	..	..	..	..
<i>Pimelea prostrata</i>	..	.X	X.	..	..	..	..	..	..	..
<i>Hebe lavaudiana</i>	..	.X	X.	..	..	..	..	..	..	..
<i>H. hulkeana</i>	..	.X	XX	..	..	..	..	..	..	..
<i>Ranunculus enysii</i>	..	.X	XX	..	..	..	..	..	..	..
<i>Cotula rotundata</i>	..	.X	XX	XX	XX	..	..	..	..	..
<i>Leptospermum scoparium</i>	XX	..	..	..	..	..	..	..
<i>Epacris alpina</i>	XX	..	..	..	..	..	..	..
<i>Celmisia traversii</i>	XX	..	..	..	..	..	..	..
<i>Helichrysum selago</i>	XX	X.	..	..	..	..	..	..
<i>Wahlenbergia brockiei</i>	XX	X.	..	..	..	..	..	..
<i>Poa acicularifolia</i>X	XX	..	..	..	..	..	..
<i>Carmichaelia uniflora</i>X	XX	..	..	..	..	..	..
<i>Libertia ixioides</i>	XX	..	..	..	..	..	..
<i>Senecio monroi</i>X	XX	..	..	..	..	..
<i>Celmisia mackauai</i>X	XX	..	..	..	..	..

MESOPOTAMIA

By John Thompson

The Canterbury Botanical Society held a Summer camp on the Mesopotamia station on the upper Rangitata River from the 5th to the 10th January, 1978. A number of walks on the property were taken on which native plants were examined. One party climbed to the ridge of Mt. Sinclair.

The following schedule lists the native plants seen on these walks. It is by no means a complete list of all the plants that grow at Mesopotamia. Only a small portion of Bush and Birch creeks were traversed

and much of the Butler Downs were not examined. No doubt additional species grow in these areas. Excluded from the list are the grasses.

Apart from the list published in the last issue of the Journal by Dr. Colin Burrows of the vegetation of the South bank of the main Rangitata river from Forest Creek to Alma Stream I have seen no recent list of plants growing on Mesopotamia.

This list gives some idea of the present native vegetation of the area.

Mr. Prouting informed us that when he took over the property it was overrun by rabbits and that many of the areas from which we had collected plants had very extensive bare slopes. Today the land is well covered with vegetation. It is of great interest that so many native plants have managed to re-establish themselves.

Of special note were the damp hollows seen on the Butler Downs which contained a variety of moisture demanding plants. One hollow which displayed a large mass of the blue flowers of Hypsela rivalis will long be remembered as will the abundance of Helichrysum depressum seen on the river beds.

Details of the walks taken are:

Column

1	Across the Rangitata river bed to Dr. Sinclair's grave
2	Sugar Loaf
3	Bush Creek
4	Scour Creek
5	Birch Creek
6	Mt. Sinclair ridge

The list of plants found growing on the Mt. Sinclair ridge trip was supplied by Stan Reid who commented that the vegetation on the upper portions of the mountain was sparse.

Summary of number of plants recorded:

Rangitata river bed	26
Sugar Loaf	76
Bush Creek	81
Scour Creek.	62
Birch Creek	112
Mt. Sinclair ridge	64
Tui Stream	3
	<hr/>
Total	424
	<hr/>
Number of species recorded	223

	River Bed	Sugar Loaf	Bush Creek	Scour Creek	Birch Creek	Mt. Sinclair Ridge
	1	2	3	4	5	6
<i>Acaena anserinifolia</i>			x			
<i>Acaena caesiiglauca</i>		x		x	x	x
<i>Acaena fissistipula</i>						x
<i>Acaena inermis</i>	x	x	x		x	
<i>Acaena microphylla</i> var. <i>robusta</i>			x	x	x	
<i>Aciphylla aurea</i>					x	x
<i>Aciphylla monroi</i>						x
<i>Aciphylla scott-thomsonii</i>						x
<i>Anisotome aromatica</i> var. <i>aromatica</i>		x		x		x
<i>Anisotome aromatica</i> var. <i>major</i>			x			
<i>Anisotome flexuosa</i>						x
<i>Aristotelia fruticosa</i>					x	
<i>Aristotelia serrata</i>					x	
<i>Arthropodium candidum</i>					x	
<i>Asplenium flabellifolium</i>			x		x	
<i>Asplenium richardii</i>			x		x	
<i>Asplenium terrestre</i> subs. <i>terrestre</i>			x		x	
<i>Asplenium trichomanes</i>			x		x	
<i>Astelia fragrans</i>					x	
<i>Blechnum capense</i>				x	x	
<i>Blechnum fluviatile</i>					x	
<i>Blechnum lanceolatum</i>					x	
<i>Blechnum penna-marina</i>		x	x		x	x
<i>Brachycome sinclairii</i>						x
<i>Bulbinella angustifolia</i> Tui Stm	x					
<i>Caltha novae-zelandiae</i>						x
<i>Calystegia tuguriorum</i>			x	x	x	
<i>Carmichaelia uniflora</i>		x				
<i>Carmichaelia enysii</i>						x
<i>Carex breviculmis</i>		x	x		x	
<i>Carex coriacea</i>					x	
<i>Carex diandra</i> Tui Stm	x					
<i>Carex dipsacea</i>					x	
<i>Carex dissita</i>					x	

	River Bed	Sugar Loaf	Bush Creek	Scour Creek	Birch Creek	Mt. Sinclair Ridge
	1	2	3	4	5	6
<i>Carex enysii</i>			x			
<i>Carex flagellifera</i> Tui Stm x						
<i>Carex gaudichaudiana</i>			x		x	
<i>Carex secta</i> var. <i>secta</i>			x		x	
<i>Carex wakatipu</i>					x	
<i>Carpodetus serratus</i>					x	
<i>Cassinia fulvida</i>						x
<i>Cassinia vauvilliersii</i>		x			x	
<i>Celmisia angustifolia</i>		x				x
<i>Celmisia alpina</i>				x		
<i>Celmisia gracilentia</i>		x		x	x	x
<i>Celmisia haastii</i>						x
<i>Celmisia laricifolia</i>						x
<i>Celmisia lyallii</i>						x
<i>Celmisia sessiliflora</i>						x
<i>Celmisia spectabilis</i>		x			x	x
<i>Celmisia spectabilis</i> var. <i>magnifica</i>						x
<i>Cheilanthes tenuifolia</i>			x		x	
<i>Chiloglottis cornuta</i>				x		
<i>Chionohebe pulvinaris</i>						x
<i>Clematis quadribacteolata</i>			x			
<i>Colobanthus acicularis</i>			x			
<i>Coprosma atropurpurea</i>	x	x			x	
<i>Coprosma linariifolia</i>					x	
<i>Coprosma propinqua</i>			x	x	x	
<i>Coriaria plumosa</i>			x		x	
<i>Coriaria sarmentosa</i>				x	x	
<i>Corokia cotoneaster</i>			x	x	x	
<i>Corybas macranthus</i>				x		
<i>Corybas trilobus</i>				x	x	
<i>Cotula pyrethrifolia</i>						x
<i>Cotula serrulata</i>	x	x				
<i>Craspedia lanata</i>		x				
<i>Craspedia uniflora</i>	x	x				

	River Bed	Sugar Loaf	Bush Creek	Scour Creek	Birch Creek	Mt. Sinclair Ridge
	1	2	3	4	5	6
<i>Cystopteris fragilis</i>					x	x
<i>Cyathodes colensoi</i>		x			x	x
<i>Cyathodes fraseri</i>		x	x	x	x	
<i>Cyathodes juniperina</i>					x	
<i>Dichondra repens</i>					x	
<i>Discaria toumatou</i>	x	x	x	x	x	
<i>Dracophyllum acerorum</i>						x
<i>Dracophyllum pronum</i>					x	x
<i>Dracophyllum uniflorum</i>						x
<i>Drapetes dieffenbachii</i>		x				x
<i>Drosera arcturi</i>				x		
<i>Eleocharis acuta</i>		x	x	x	x	
<i>Eleocharis gracilis</i>		x		x		
<i>Elytranthe flavida</i>		x		x		
<i>Epilobium brunescens</i>	x		x	x	x	
<i>Epilobium billardierianum</i> ?			x			
<i>Epilobium elegans</i>		x				
<i>Epilobium glabellum</i>			x		x	
<i>Epilobium macropus</i>						x
<i>Epilobium melanocaulon</i>	x		x		x	
<i>Epilobium melanocaulon</i> var. <i>viride</i>					x	
<i>Epilobium microphyllum</i>			x		x	
<i>Epilobium novae-zelandiae</i>					x	
<i>Epilobium pubens</i>					x	
<i>Exocarpus bidwillii</i>					x	
<i>Fostera bidwillii</i>		x				
<i>Fuchsia excorticata</i>					x	
<i>Galium perpusillum</i>		x	x			x
<i>Gastrodia cunninghamii</i>				x		
<i>Gaultheria crassa</i>				x	x	x
<i>Gaultheria depressa</i>		x	x	x	x	
<i>Gentiana corymbifera</i>						x
<i>Geranium sessiliflorum</i>	x	x	x	x	x	
<i>Geum parviflorum</i>					x	x
<i>Gingidia montana</i>			x			

	River Bed 1	Sugar Loaf 2	Bush Creek 3	Scour Creek 4	Birch Creek 5	Mt. Sinclair Ridge 6
<i>Gnaphalium collinum</i>		x				
<i>Gnaphalium luteo-album</i>					x	x
<i>Gonocarpus micranthus</i>		x	x	x		
<i>Gratiola sexdentata</i>				x		
<i>Griselinia littoralis</i>			x		x	
<i>Haastia sinclairii</i>						x
<i>Haloragis erecta</i> ssp. <i>erecta</i>			x		x	
<i>Hebe cheesemanii</i>						x
<i>Hebe epacridea</i>						x
<i>Hebe lycopodioides</i>						x
<i>Hebe pinguifolia</i>			x			x
<i>Hebe salicifolia</i>			x		x	
<i>Hebe traversii</i>			x		x	
<i>Helichrysum aggregatum</i>					x	
<i>Helichrysum bellidioides</i>		x	x	x	x	x
<i>Helichrysum depressum</i>	x		x		x	
<i>Helichrysum filicaule</i>					x	
<i>Helichrysum selago</i>			x		x	
<i>Hoheria lyallii</i>			x		x	x
<i>Hydrocotyle novae-zelandiae</i>	x	x	x	x	x	
<i>Hymenanthera alpina</i>	x	x	x	x	x	
<i>Hymenophyllum multifidum</i>						x
<i>Hypericum gramineum</i>		x		x	x	
<i>Hypolepis millefolium</i>					x	x
<i>Hypsela rivalis</i>		x		x		
<i>Juncus antarcticus</i>			x			
<i>Juncus australis</i>	x	x	x	x	x	
<i>Juncus distegus</i>	x					
<i>Juncus gregiflorus</i>				x		
<i>Lagenifera petiolata</i>		x				
<i>Lagenifera pumila</i>		x			x	
<i>Lastreopsis velutina</i>					x	
<i>Lemna minor</i>			x	x		
<i>Leptospermum ericoides</i>					x	
<i>Leptospermum scoparium</i>	x	x	x	x	x	

	River Bed 1	Sugar Leaf 2	Bush Creek 3	Scour Creek 4	Birch Creek 5	Mt. Sinclair Ridge 6
<i>Limosella lineata</i>				x		
<i>Lobelia linnaeoides</i>		x				x
<i>Luzula picta</i> var. <i>limosa</i>		x	x			
<i>Luzula pumila</i>						x
<i>Luzula rufa</i> var. <i>rufa</i>		x	x			
<i>Lycopodium australianum</i>						x
<i>Lycopodium scariosum</i>		x				
<i>Mazus radicans</i>		x				
<i>Mentha cunninghamii</i>		x	x	x	x	
<i>Metrosideros umbellata</i>				x		
<i>Microseris scapigera</i>		x		x		
<i>Microtis oligantha</i>			x			
<i>Microtis uniflora</i>	x	x	x	x	x	
<i>Muehlenbeckia australis</i>			x	x	x	
<i>Muehlenbeckia axillaris</i>		x			x	
<i>Muehlenbeckia complexa</i>	x		x	x	x	
<i>Myosotis australis</i>					x	x
<i>Myriophyllum propinquum</i>				x		
<i>Myrsine nummularia</i>						x
<i>Neopaxia australasica</i>		x			x	x
<i>Nertera balfouriana</i>		x				x
<i>Nothofagus solandri</i> var. <i>cliffortioides</i>		x		x	x	
<i>Olearia avicenniaefolia</i>			x		x	
<i>Olearia nummularifolia</i> var. <i>cymbifolia</i>						x
<i>Olearia odorata</i>			x			
<i>Olearia virgata</i>			x			
<i>Ophioglossum coriaceum</i>		x				
<i>Oreobolus pectinatus</i>		x		x		
<i>Oreomyrrhis colensoi</i>	x			x		
<i>Ourisia caespitosa</i>						x
<i>Oxalis corniculata</i>	x	x	x		x	
<i>Parahebe decora</i>		x	x			
<i>Parsonsia capsularis</i>			x		x	
<i>Pentacondra pumila</i>		x				

	River Bed 1	Sugar Loaf 2	Bush Creek 3	Scour Creek 4	Birch Creek 5	Mt. Sinclair Ridge 6
<i>Pernettya nana</i>		x				
<i>Phyllachne colensoi</i>						x
<i>Pimelia prostrata</i>	x	x	x	x	x	
<i>Pimelia traversii</i>						x
<i>Pittosporum tenuifolium</i>					x	
<i>Plantago triandra</i>		x	x			
<i>Podocarpus nivalis</i>						x
<i>Polystichum cystostegia</i>						x
<i>Polystichum richardii</i>		x			x	
<i>Polystichum vestitum</i>			x		x	x
<i>Potamogeton cheesemanii</i>			x	x		
<i>Prasophyllum colensoi</i>	x	x	x	x	x	
<i>Pratia angulata</i>		x				
<i>Pseudopanax crassifolius</i>					x	
<i>Pterostylis areolata</i>					x	
<i>Pterostylis mutica</i>	x	x				
<i>Pteridium acquilinum</i> var. <i>esculentum</i>		x	x		x	
<i>Pyrrosia serpens</i>			x		x	
<i>Ranunculus gracilipes</i>						x
<i>Ranunculus lappaceus</i>				x		x
<i>Ranunculus rivularis</i>		x		x		
<i>Raoulia australis</i>	x	x	x	x	x	
<i>Raoulia eximia</i>						x
<i>Raoulia grandiflora</i>						x
<i>Raoulia haastii</i>			x		x	
<i>Raoulia hookeri</i>			x			
<i>Raoulia monroi</i>			x			
<i>Raoulia subsericia</i>	x	x	x	x	x	
<i>Raoulia tenuicaulis</i>			x		x	
<i>Raoulia youngii</i>						x
<i>Rubus cissoides</i>			x		x	
<i>Rubus schmidelioides</i>					x	
<i>Schoenus nitens</i> var. <i>concinus</i>				x		
<i>Schoenus pauciflorus</i>		x	x	x		

	River Bed	Sugar Loaf	Bush Creek	Scour Creek	Birch Creek	Mt. Sinclair Ridge
	1	2	3	4	5	6
<i>Scleranthus biflorus</i>		x				
<i>Scleranthus brockiei</i>		x				
<i>Scleranthus uniflorus</i>	x					x
<i>Senecio bellidioides</i>		x			x	
<i>Senecio lagopus</i>						x
<i>Senecio quadridentata</i>			x		x	
<i>Senecio scorzoneroides</i>						x
<i>Sophora microphylla</i>			x		x	
<i>Stellaria gracilentata</i>		x	x	x	x	
<i>Thelymitra hatchii</i>		x				
<i>Thelymitra longifolia</i>		x		x	x	
<i>Tillaea sinclarii</i>				x		
<i>Uncinia clavata</i>					x	
<i>Utricularia monanthos</i>		x		x		
<i>Viola cunninghamii</i>	x	x		x	x	
<i>Vittadinia australis</i>	x	x	x	x	x	
<i>Wahlenbergia albomarginata</i>	x	x	x	x	x	
<i>Wahlenbergia gracilis</i>					x	

Olearia colensoi in the Upper Rakaia

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After a statement about two known localities only for this species in Canterbury, in last year's Journal (in the upper Wilberforce and White Rivers), I can now report an abundance of it in the gorge of the Reischek River. In November 1977 with Peter Birkeland, Bill McSweeney and Graeme Young, I made a quick strip to Mein's Knob to get samples for radiocarbon-dating the glacial chronology of the area. We found a very interesting alpine flora on top of the Knob, which I will endeavour to report at greater length in a future Journal. With half a day to spare during an unprecedented spell of fine weather we clambered up the bouldery, very narrow gorge of the Reischek River, which, in places was littered with old