

* <i>Cortaderia jubata</i>	purple pampas	abundant
* <i>Dactylis glomerata</i>	cooks foot	abundant
* <i>Holcus lanatus</i>	Yorkshire fog	rare
* <i>Lolium perenne</i>	perennial rye grass	occasional
<i>Microlaena stipoides</i>	meadow rice-grass	occasional
* <i>Paspalum dilatatum</i>	paspalum	abundant
* <i>Parapholis incurva</i>	sickle grass	common
* <i>P. strigosa</i>		common
* <i>Rytidosperma pencillatum</i>	bristle grass	occasional
* <i>R. racemosum</i>	bristle grass	common
<i>Stipa stipoides</i>		rare

Sedges (1)

* <i>Carex divulsa</i>		occasional
------------------------	--	------------

Monocotyledonous Herbs (other than grasses and sedges) (2)

* <i>Asparagus asparagoides</i>	smilax	occasional
<i>Triglochin striata</i>		rare

Dicotyledonous Composite Herbs (5)

* <i>Cirsium vulgare</i>	scotch thistle	1 specimen
* <i>Crepis capillaris</i>		occasional
* <i>Helminotheca echooides</i>	oxtongue	abundant
* <i>Leontodon taraxacoides</i>		occasional
* <i>Sonchus oleraceus</i>	sow thistle	occasional

Dicotyledonous Herbs (other than composites) (10)

* <i>Atriplex prostrata</i>	coastal orache	common
* <i>Galium aparine</i>	cleavers	occasional
<i>Geranium retrorsum</i>		1 specimen
* <i>Lepidium bonariense</i>	Argentine cress	occasional
* <i>Medicago lupulina</i>		occasional
* <i>Plantago lanceolata</i>		common
<i>Sarcocornia quinqueflora</i>	glasswort	occasional
* <i>Torilis japonica</i>		common
* <i>Trifolium repens</i>	white clover	occasional

Auckland Botanical Society Easter 1995 Field Trip - Tutukaka

Enid Asquith

Most of us travelled early on Good Friday morning, assembling around the breakfast table at the Forester/McKenzie household for a quick coffee and brief stop to pitch camp in the garden before setting off with the dinghy in the van, for Church Bay - just beyond the bottom of the driveway.

Paul manfully rowed everyone out to tiny Phillip Island with one good oar and a makeshift one that made him wish he'd borrowed the pair nailed decoratively to the wall of a beach side bach! Rock hopping round the island, we found *Cheilanthes distans* and *C. sieberi* side by side with some beautiful small cushions of *Scleranthus biflorus* and the find of the morning *Pellaea* cf. *calidirupium* and an exceptionally fleshy *Peperomia urvilleana*.

The afternoon saw us out on the Tutukaka Reserve Walkway to the Lighthouse on South Gable in typical coastal bush with a profusion of *Pimelea prostrata*, *Chionochloa bromoides*, and a first view for many of us of *Pimelea tomentosa* and *Asplenium northlandicum*. Lisa led an impromptu hebe workshop, with *H. stricta*, *H. ligustrifolia* and a new possible *H. "Whangarei"*. Before heading back to camp we all took time to absorb a stunningly beautiful view of the sea, surf and rocks looking back towards the mainland from the Lighthouse.

Saturday morning's drive took us out to the Hikurangi Swamp to look for two 'specials' - *Doodia squarrosa* and *Pittosporum obcordatum*. Satisfyingly we found plenty of both and met up with Tony McCluggage who is working there with Lisa, aided by some funding from a Yates' Fellowship, on methods of management of this newly fenced, DOC owned, part of the Swamp, with particular concern for the regeneration of *P. obcordatum*. As well as the pretty pink ribbons on the female *P. obcordatum* trees, three superbly sculptured wasp nests adorned a couple more trees. The ribbons were part of the experimental work but the wasp sculptures were just pure natural art!

On Sunday four intrepid snorkellers went out for a sun, water and wildlife filled day on the local dive boat to the Poor Knights Islands. Added to the interesting bird watching (Bullers and Flesh footed shearwaters, Diving petrels and a magnificent flying fish display), and mind-blowing underwater experience of seaweed gardens and fish species, was the bonus of being able to botanise through binoculars from the boat. Our diving companions were convinced we were mad, but even they became interested and impressed by the clusters of Poor Knights lilies crowding the rock pinnacles above us, if not by the other 13 species we could definitely identify, including a huge sprawling *Sicyos*. The land lubbing botanists were not quite so fortunate with the weather spending their day in the Hugh Crawford Reserve. This was where our youngest botanist Hugh (nearly 4 years old) finally found the going a little too tough for him after accompanying us valiantly for three days. *Bulbophyllum tuberculatum* was the find of the day here.

On Monday those who hadn't made an early start for home drove out to Bream Head and Mt Manaia. We botanised at full speed from the path, taking the whole day to reach the top, although we did miss out on the last 30 m up the pinnacle. It was not Phil's bare feet that slowed the pace, rather the length of the specimen list!

We found again the pretty *Doodia squarrosa*, plenty of flowering *Rhabdothamnus solandri*, *Libertia grandifolia*, *Pomaderris paniculosa* subsp. *novae-zelandiae*, and especially on the higher slopes *Scandia rosifolia* and *Phormium cookianum*. Right at the top saddle we found *Celmisia adamsii* var. *rugulosa* (now considered to be part of the *Celmisia gracilentia* aggregate), *Pimelea tomentosa* again and a small *Myosotis* nestling above the precipice. And did we see *Collospermum microspermum* up there too? When we looked down at the breathtaking view of the harbour below we thought we had seen the lot, but on dropping down the few metres to where we had left Georgie to rest in preparation for the steep descent, there she was proudly guarding a tiny crop of *Bulbophyllum pygmaeum* to add to our day's finds.

It was a great trip, enhanced enormously by the very generous Forester/McKenzie hospitality which culminated in a wild pork and home-grown corn "umu" and the company of their delightful young son Hugh, not forgetting the dog.

Many thanks to Lisa, we will just have to come again to help you do the species list for your own back block!

Appendix: Vascular flora of five northern reserves visited during the Easter trip to Tutukaka.

The lists for Philip Island (P. Is.), South Gable (Sth.G.), and Hikurangi Swamp (Hik.S.), or Wairoa Wildlife Management Reserve to give the correct title, were compiled by ABS members. The lists for Hugh W. Crawford Reserve (H. Craw.) and Manaia (Man.) are reproduced from the DOC database, with additions tagged ABS. Plants reported by Lisa Forester to be present at Hikurangi Swamp, but not seen by ABS, are tagged LF.

	P. Is.	Sth. G.	Hik. S.	H. Craw.	Man.
Ferns					
<i>Adiantum cunninghamii</i>		*			*
<i>A. diaphanum</i>					*
<i>A. fulvum</i>				*	*
<i>A. hispidulum</i>	*	*	*	ABS	*
<i>A. viridescens</i>					*
<i>Anarthropteris lanceolata</i>				*	*
<i>Asplenium bulbiferum</i>				*	*
<i>A. flaccidum</i>			*	*	*
<i>A. haurakiense</i>	*				
<i>A. hookerianum</i>					*
<i>A. lamprophyllum</i>					*
<i>A. northlandicum</i>		?			
<i>A. oblongifolium</i>	*	*		*	*
<i>A. polyodon</i>				*	*
<i>Blechnum</i> 'black spot'		*	*	*	*
<i>B. chambersii</i>				*	*
<i>B. discolor</i>				*	*
<i>B. filiforme</i>				*	*
<i>B. fraseri</i>				*	*
<i>B. membranaceum</i>				*	*
<i>B. minus</i>				*	*
<i>Cheilanthes distans</i>	*				
<i>C. sieberi</i>	*				
<i>Ctenopteris heterophylla</i>					*
<i>Cyathea cunninghamii</i>				*	*
<i>C. dealbata</i>		*	*	*	*
<i>C. medullaris</i>		*	*	*	*
<i>C. smithii</i>					*
<i>Deparia petersenii</i>			*	*	*
<i>Dicksonia squarrosa</i>				*	*
<i>Diplazium australe</i>			*		*
<i>Doodia media</i>	*	*	*	*	*
<i>D. squarrosa</i>			*		ABS
<i>Gleichenia dicarpa</i>					*
<i>Grammitis billardierei</i>					*
<i>Histiopteris incisa</i>			*		*
<i>Hymenophyllum atrovirens</i>					*
<i>H. demissum</i>				*	*
<i>H. dilatatum</i>					*
<i>H. flabellatum</i>				*	*
<i>H. flexuosum</i>				*	*
<i>H. multifidum</i>					*
<i>H. rarum</i>					*
<i>H. revolutum</i>				*	
<i>H. sanguinolentum</i>				ABS	*
<i>H. scabrum</i>					*
<i>Hypolepis ambigua</i>			*		
<i>Lastreopsis glabella</i>				*	ABS
<i>L. hispida</i>				*	*
<i>L. microsora</i>				ABS	*
<i>L. velutina</i>					*
<i>Leptopteris hymenophylloides</i>				*	
<i>Lindsaea linearis</i>					*
<i>L. trichomanoides</i>				*	
<i>Lycopodium cernuum</i>				*	

	P. Is.	Sth. G.	Hik. S.	H. Craw.	Man.
<i>L. deuterodensum</i>				*	*
<i>L. varium</i>				*	*
<i>L. volubile</i>			*	*	*
<i>Lygodium articulatum</i>				*	*
<i>Paesia scaberula</i>		*	*	*	*
<i>Pellaea cf. calidirupium</i>	*				
<i>P. rotundifolia</i>					*
<i>Phymatosorus pustulatus</i>	*	*	*	*	*
<i>P. scandens</i>				*	*
<i>Pneumatopteris pennigera</i>				*	*
<i>Polystichum richardii</i>					*
<i>Pteridium esculentum</i>	*	*	*	*	*
<i>Pteris macilenta</i>					*
<i>P. saxatilis</i>		*			*
<i>P. tremula</i>		*	*		*
<i>Pyrrosia eleagnifolia</i>	*	*	*	*	*
<i>Schizea dichotoma</i>				*	
<i>Sticherus cunninghamii</i>				*	
<i>Tmesipteris elongata</i>				*	*
<i>T. lanceolata</i>				ABS	*
<i>T. sigmatifolia</i>				*	*
<i>T. tannensis</i>					*
<i>Trichomanes elongatum</i>				*	
<i>T. reniforme</i>				*	*
<i>T. venosum</i>					*

Gymnosperms

<i>Agathis australis</i>				*	*
<i>Dacrycarpus dacrydioides</i>			*	*	*
<i>Dacrydium cupressinum</i>		*		*	*
<i>Libocedrus plumosa</i>				*	*
<i>Phyllocladus trichomanoides</i>				*	*
<i>Podocarpus hallii</i>				*	*
<i>P. totara</i>		*	*	*	*
<i>Prumnopitys ferruginea</i>				*	*
<i>P. taxifolia</i>					*

Dicotyledons

<i>Ackama rosifolia</i>					*
<i>Alectryon excelsus</i>					*
<i>Alseuosmia banksii</i>				*	
<i>A. macrophylla</i>					*
<i>A. x quercifolia</i>				*	*
<i>Apium prostratum</i>	*	*			
<i>Ascarina lucida</i>					*
<i>Avicennia marina</i>				*	
<i>Beilschmiedia tarairi</i>				*	*
<i>B. tawa</i>				*	*
<i>B. tawaroa</i>					*
<i>Brachyglottis kirkii</i>					*
<i>B. repanda</i>	*	*		*	*
<i>Callitriche muelleri</i>					*
<i>Calystegia marginata</i>					*
<i>C. sepium</i>			*	*	*
<i>C. soldanella</i>	*				

	P. Is.	Sth. G.	Hik. S.	H. Craw.	Man.
<i>C. tuguriorum</i>			*		*
<i>Carmichaelia cunninghamii</i>		*	*	*	*
<i>Carpodetus serratus</i>				*	*
<i>Celmisia gracilentata</i> agg.					*
<i>Centella uniflora</i>			*	*	*
<i>Clematis cunninghamii</i>				*	*
<i>C. foetida</i>					*
<i>C. forsteri</i>					*
<i>C. paniculata</i>	*	*		ABS	*
<i>Coprosma arborea</i>		*		*	*
<i>C. areolata</i>		*	*		*
<i>C. grandifolia</i>				*	*
<i>C. lucida</i>		*		*	*
<i>C. macrocarpa</i>	*	*			*
<i>C. macrocarpa</i> x <i>C. propinqua</i>					*
<i>C. x neglecta</i>					*
<i>C. parviflora</i>			*		*
<i>C. propinqua</i>			*	*	*
<i>C. propinqua</i> x <i>C. robusta</i>	*			*	*
<i>C. repens</i>		*			*
<i>C. rhamnoides</i>	*	*	*	*	*
<i>C. rigida</i>			*	*	*
<i>C. robusta</i>	*			*	*
<i>C. rotundifolia</i>			*		*
<i>C. spathulata</i>				*	*
<i>Coriaria arborea</i>		*		ABS	*
<i>Corokia buddleioides</i>					*
<i>C. cotoneaster</i>					*
<i>Corynocarpus laevigatus</i>	*	*		*	*
<i>Crassula</i> sp.	*				*
<i>Cyathodes juniperina</i>	*			ABS	*
<i>Dichondra repens</i>	*	*		ABS	*
<i>Disphyma australe</i>		*			*
<i>Dodonaea viscosa</i>	*				*
<i>Dracophyllum latifolium</i>				*	*
<i>Drosera peltata</i>					*
<i>Dysoxylum spectabile</i>				*	*
<i>Elaeocarpus dentatus</i>				*	*
<i>Elatostoma rugosum</i>				*	*
<i>Epilobium pallidiflorum</i>				*	*
<i>Fuchsia excorticata</i>					*
<i>Galium propinquum</i>					*
<i>Gaultheria antipoda</i>				*	*
<i>Geniostoma rupestre</i>	*	*		*	*
<i>Geranium homeanum</i>					*
<i>G. solanderi</i> "coarse hairs"	*	*		ABS	*
<i>Gnaphalium audax</i>					*
<i>G. delicatum</i>					*
<i>G. gymnocephalum</i>	*	*		*	*
<i>G. involucrum</i>					*
<i>G. sphaericum</i>					*
<i>Gonocarpus incanus</i>					*
<i>Griselinia littoralis</i>					*
<i>G. lucida</i>					*
<i>Halogaris erecta</i>	*	*	*	*	*
<i>Hebe ligustrifolia</i>		*			*
<i>H. "Hikurangi"</i>			*		*

	P. Is.	Sth. G.	Hik. S.	H. Crow.	Man.
<i>H. macrocarpa</i>					*
<i>H. stricta</i>	*	*		*	*
<i>H. "Whangarei"</i>		*			
<i>Hedycarya arborea</i>			*	*	*
<i>Helichrysum aggregatum</i>					*
<i>Hoheria populnea</i>					*
<i>Hydrocotyle elongata</i>					*
<i>H. microphylla</i>					*
<i>H. moschata</i>					*
<i>H. novae-zelandiae</i>				ABS	
<i>Hypericum japonicum</i>					*
<i>Knigthea excelsa</i>				*	*
<i>Kunzea ericoides</i>	*		*	*	*
<i>Lagenifera pumila</i>		*			
<i>Laurelia novae-zelandiae</i>				*	
<i>Leptospermum scoparium</i>	*	*	*	*	*
<i>Leucopogon fasciculatus</i>	*	*		*	*
<i>L. fraseri</i>	*	*			*
<i>Litsea calicaris</i>					*
<i>Lobelia anceps</i>	*	*		*	*
<i>Lophomyrtus bullata</i>					*
<i>Macropiper excelsum</i>	*	*		ABS	*
<i>Melicope simplex</i>			*		*
<i>M. ternata</i>		*			*
<i>Melicytus macrophyllus</i>				*	*
<i>M. micranthus</i>			*	*	*
<i>M. ramiflorus</i>	*	*	*	*	*
<i>Metrosideros carminea</i>					*
<i>M. diffusa</i>					*
<i>M. excelsa</i>	*	*		*	*
<i>M. excelsa x M. robusta</i>				*	*
<i>M. fulgens</i>				*	*
<i>M. perforata</i>		*		*	*
<i>M. robusta</i>				*	*
<i>Mida salicifolia</i>				*	*
<i>Muehlenbeckia australis</i>			*		*
<i>M. complexa</i>					*
<i>Myosotis matthewsii</i>					*
<i>M. spathulata</i>					*
<i>Myrsine australis</i>	*	*	*	*	*
<i>M. divaricata</i>			*		
<i>M. salicina</i>					*
<i>Neomyrtus pedunculata</i>			*		
<i>Nertera dichondrifolia</i>				*	
<i>Nestegis cunninghamii</i>					*
<i>N. lanceolata</i>			*	*	*
<i>N. montana</i>				*	*
<i>Olearia furfuracea</i>	*	*		*	*
<i>O. rani</i>					*
<i>Oxalis exilis</i>				*	*
<i>Parietaria debilis</i>	*				
<i>Parsonsia capsularis</i>			sp.		*
<i>P. heterophylla</i>					*
<i>Passiflora tetrandra</i>					*
<i>Peperomia urvilleana</i>	*				*
<i>Phebalium nudum</i>				*	*
<i>Pimelea prostrata</i>					*

	P. Is.	Sth. G.	Hik. S.	H. Craw.	Man.
<i>P. tomentosa</i>		*			ABS
<i>P. urvilleana</i>	*	*			
<i>Pittosporum crassifolium</i>		*			
<i>P. ellipticum</i>					*
<i>P. eugenioides</i>					*
<i>P. obcordatum</i>			*		
<i>P. tenuifolium</i>			*	*	*
<i>P. umbellatum</i>	*	*		*	*
<i>Plagianthus regius</i>			*		
<i>Polygonum salicifolium</i>			*		*
<i>Pomaderris ericifolia</i>		*			*
<i>P. kumeraho</i>				*	*
<i>P. paniculosa</i> subsp. <i>n-z</i>					*
<i>Pseudognaphalium</i> "coast"		*			*
<i>Pseudopanax arboreus</i>				*	*
<i>P. crassifolius</i>				*	*
<i>P. crassifolius</i> x <i>P. lessonii</i>					ABS
<i>P. lessonii</i>	*	*			*
<i>Pseudowintera axillaris</i>					*
<i>Quintinia serrata</i>					*
<i>Ranunculus reflexus</i>		*			*
<i>Rhabdothamnus solandri</i>					*
<i>Rubus australis</i>			*	*	*
<i>R. cissoides</i>				*	*
<i>R. schmidelioides</i>			*		
<i>Samolus repens</i>	*	*			
<i>Sarcocornia quinqueflora</i>	*			*	
<i>Scandia rosifolia</i>					*
<i>Schefflera digitata</i>				*	*
<i>Scleranthus biflorus</i>	*				
<i>Senecio glomeratus</i>					*
<i>S. hispidulus</i>					*
<i>S. lautus</i>	*	*			
<i>S. minimus</i>	*				
<i>S. quadridentatus</i>					*
<i>Solanum americanum</i>	*	*	*	*	*
<i>S. aviculare</i>					*
<i>Sophora microphylla</i>	*		*	*	*
<i>Streblus heterophyllus</i>			*	ABS	*
<i>Syzygium maire</i>				ABS	
<i>Tetragonia</i> sp.		*			
<i>Teucrium parvifolium</i>			LF		
<i>Toronia toru</i>					*
<i>Viola lyallii</i>			LF		
<i>Vitex lucens</i>				*	*
<i>Wahlenbergia colensoi</i>					*
<i>W. gracilis</i>		*			*
<i>Weinmannia silvicola</i>				*	*

Monocotyledons

<i>Acianthus sinclairii</i>				ABS	*
<i>Arthropodium cirratum</i>	*	*			*
<i>Astelia banksii</i>	*	*			*
<i>A. nervosa</i>					*
<i>A. solandri</i>				*	*
<i>A. trinervia</i>				*	*

	P. Is.	Sth. G.	Hik. S.	H. Crow.	Man.
<i>Baumea huttonii</i>				*	
<i>B. juncea</i>				*	*
<i>B. rubiginosa</i>				*	
<i>B. tenax</i>				*	*
<i>Bulbophyllum pygmaeum</i>				ABS	*
<i>B. tuberculatum</i>				ABS	
<i>Caladenia catenata</i>				*	
<i>Carex breviculmis</i>	*				
<i>C. dissita</i>				ABS	*
<i>C. flagellifera</i>		*	*	*	
<i>C. forsteri</i>					*
<i>C. lambertiana</i>			*	*	*
<i>C. maorica</i>					*
<i>C. ochrosaccus</i>				*	
<i>C. secta</i>				*	
<i>C. solandri</i>					*
<i>C. spinirostris</i>					*
<i>C. virgata</i>			*	*	
<i>Chionochloa bromoides</i>		*			
<i>Collospermum hastatum</i>				*	*
<i>Cordyline australis</i>	*	*	*	*	*
<i>C. banksii</i>				*	*
<i>C. pumilio</i>				*	*
<i>Cortaderia fulvida</i>				*	*
<i>C. splendens</i>		*			*
<i>Corybas macranthus</i>					*
<i>C. oblongus</i>				*	
<i>C. trilobus</i>				*	
<i>Cyperus ustulatus</i>			*	*	*
<i>Dendrobium cunninghamii</i>					*
<i>Deyeuxia quadriseta</i>				*	*
<i>Dianella nigra</i>	*	*		*	*
<i>Dichelachne crinita</i>					*
<i>Drymoanthus adversus</i>				ABS	
<i>Earina autumnalis</i>					ABS
<i>E. mucronata</i>				*	*
<i>Echinopogon ovatus</i>		*	*	ABS	
<i>Eleocharis acuta</i>				*	*
<i>E. sphaceolata</i>			*		
<i>Elymus</i> sp.					*
<i>Freycinetia banksii</i>				*	*
<i>Gahnia lacera</i>		*		*	*
<i>G. pauciflora</i>				*	*
<i>G. setifolia</i>				*	*
<i>G. xanthocarpa</i>				*	*
<i>Isachne globosa</i>				*	
<i>Isolepis inundatus</i>				*	*
<i>I. nodosa</i>	*	*		*	*
<i>I. reticularis</i>					*
<i>Juncus gregiflorus</i>			*	*	
<i>J. holoschoenus</i>					*
<i>J. krausii</i> var. <i>australiensis</i>				*	
<i>J. pallidus</i>			*		
<i>J. planifolius</i>					*
<i>J. prolifer</i>			*		
<i>Lachnagrostis filiformis</i>					*
<i>Lepidosperma australe</i>					*

	P. Is.	Sth. G.	Hik. S.	H. Craw.	Man.
<i>L. laterale</i>					*
<i>Leptocarpus similis</i>				*	
<i>Libertia grandiflora</i>					*
<i>L. ixioides</i>					*
<i>Microlaena avenacea</i>				*	*
<i>M. stipoides</i>		*	*	*	*
<i>Microtis unifolia</i>				*	*
<i>Morelotia affinis</i>	*	*			*
<i>Oplismenus imbecillis</i>	*	*	*	*	*
<i>Oreobolus strictus</i>					*
<i>Phormium cookianum</i>					*
<i>P. tenax</i>	*	*		*	*
<i>Poa anceps</i>	*	*			*
<i>Potamogeton cheesemanii</i>			*		
<i>Pterostylis alobula</i>					*
<i>P. banksii</i>					*
<i>P. brumalis</i>				*	
<i>P. graminea</i>				*	*
<i>Rhopalostylis sapida</i>				*	*
<i>Ripogonum scandens</i>			*	*	*
<i>Rytidosperma biannulare</i>	sp.	sp.			*
<i>R. gracile</i>				*	*
<i>R. unarede</i>				*	*
<i>Schoenoplectus validus</i>				*	
<i>Schoenus apogon</i>					*
<i>S. brevifolius</i>					*
<i>S. maschalinus</i>					*
<i>S. tendo</i>				*	*
<i>Stipa stipoides</i>		*			
<i>Thelymitra longifolia</i>				sp.	*
<i>T. pauciflora</i>					*
<i>Typha orientalis</i>				*	
<i>Uncinia banksii</i>				*	*
<i>U. rupestris</i>					*
<i>U. uncinata</i>		*		*	*
<i>U. zotovii</i>				*	*

Exotics

Ferns and Allies

<i>Azolla pinnata</i>			*		
<i>Selaginella kraussiana</i>			*		

Gymnosperms

<i>Pinus pinaster</i>					*
<i>P. radiata</i>	*			*	*

Dicotyledons

<i>Ageratina adenophora</i>	*			*	*
<i>A. riparia</i>		*		*	*
<i>Anagalis arvensis</i>	*	*		*	*
<i>Atriplex hastata</i>		*			
<i>Bellis perennis</i>				*	
<i>Berberis darwinii</i>			*		

	P. Is.	Sth. G.	Hik. S.	H. Crow.	Man.
<i>Bidens</i> sp.	*				
<i>Callitriche stagnalis</i>				*	
<i>Cannabis sativa</i>				*	
<i>Centaurium erythraea</i>				*	*
<i>Cerastium glomeratum</i>				*	
<i>Cirsium vulgare</i>	*	*	*	*	*
<i>Conyza albida</i>	*	*	*	*	*
<i>Cotoneaster glaucophyllus</i>					*
<i>Crepis capillaris</i>					*
<i>Daucus carota</i>				*	*
<i>Duchesnea indica</i>					ABS
<i>Elaeagnus x reflexa</i>					*
<i>Embothrium coccineum</i>					*
<i>Euphorbia peplus</i>	*				
<i>Feijoa sellowiana</i>			*		
<i>Fragaria vesca</i>					*
<i>Galium aparine</i>			*		*
<i>G. divaricatum</i>					*
<i>Gnaphalium coarctatum</i>		*	*		*
<i>G. simplicicaule</i>				*	*
<i>Hakea salicifolia</i>					*
<i>H. sericea</i>					*
<i>Hibiscus trionum</i>					*
<i>Hypericum humifusum</i>			*		
<i>Hypochoeris radicata</i>	*	*	*	*	*
<i>Jasminum polyanthum</i>			*		
<i>Lapsana communis</i>					*
<i>Leontodon taraxacoides</i>	*			*	*
<i>Leucanthemum vulgare</i>				*	
<i>Linum bienne</i>					*
<i>L. trigynum</i>					*
<i>Lotus pedunculatus</i>		*	*	*	*
<i>L. suaveolens</i>		*		*	*
<i>Ludwigia palustris</i>			*		
<i>Lythrum hyssopifolia</i>					*
<i>Mentha pulegium</i>			*	*	*
<i>Modiola caroliniana</i>			*		
<i>Myriophyllum aquaticum</i>			*		
<i>Oenanthe pimpinelloides</i>			*	*	
<i>Oxalis corniculata</i>				*	
<i>Paraserianthes lophantha</i>				*	
<i>Parentucellia viscosa</i>				*	*
<i>Phytolacca octandra</i>	*				*
<i>Plantago australis</i>				*	*
<i>P. lanceolata</i>			*	*	*
<i>P. major</i>					*
<i>Polycarpon tetraphyllum</i>	*				
<i>Polygonum strigosum</i>			*		
<i>Prunella vulgaris</i>			*	*	*
<i>Prunus persica</i>		*			
<i>Psoralea pinnata</i>					*
<i>Quercus</i> sp.			*		
<i>Ranunculus repens</i>			*	*	*
<i>Rubus fruticosus</i> agg.				ABS	
<i>Rumex acetosa</i>					*
<i>R. acetosella</i>			*		*
<i>R. crispus</i>				*	

	P. Is.	Sth. G.	Hik. S.	H. Craw.	Man.
<i>Salix fragilis</i>			*		
<i>Senecio bipinnatisectus</i>			*	*	*
<i>S. diaschides</i>				*	
<i>S. jacobea</i>		*	*		*
<i>S. mikanioides</i>				ABS	
<i>Silene gallica</i>	*				
<i>Silybum marianum</i>	*		*		
<i>Solanum mauritianum</i>			*		
<i>S. nigrum</i>	*	*	*		*
<i>S. pseudocapsicum</i>			*		
<i>Sonchus asper</i>					*
<i>S. oleraceus</i>	*	*		*	*
<i>Taraxacum officinale</i>					*
<i>Tradescantia fluminensis</i>			*		
<i>Trifolium repens</i>			*		*
<i>Ulex europaeus</i>			*	*	*
<i>Verbena bonariensis</i>				*	
<i>Veronica persica</i>					*
<i>V. plebeia</i>				*	*

Monocotyledons

<i>Agrostis capillaris</i>				*	*
<i>A. stolonifera</i>					*
<i>Aira caryophyllea</i>	*			*	*
<i>Alisma plantago-aquatica</i>			*		
<i>Anthoxanthum odoratum</i>	*		*	*	*
<i>Axonopus affinis</i>			*	*	*
<i>Briza minor</i>				*	*
<i>Carex longebrachiata</i>					*
<i>C. sp.</i>				*	*
<i>Cortaderia jubata</i>					*
<i>C. selloana</i>		*		*	*
<i>Crocsmia x crocosmiiflora</i>				*	
<i>Cynodon dactylon</i>					*
<i>Cyperus congestus</i>					*
<i>C. eragrostis</i>			*		*
<i>Dactylis glomerata</i>	*	*		*	*
<i>Egeria densa</i>			*		
<i>Festuca arundinacea</i>				*	
<i>Holcus lanatus</i>			*		*
<i>Juncus articulatus</i>				*	
<i>J. bufonius</i>					*
<i>J. effusus</i>			*	*	*
<i>J. microcephalus</i>			*		*
<i>J. tenuis</i>			*	*	ABS
<i>Lagurus ovatus</i>	*				
<i>Lolium perenne</i>					*
<i>Orobanche minor</i>	*	*	*		
<i>Paspalum dilatatum</i>		*	*	*	*
<i>P. urvillei</i>				*	
<i>Pennisetum clandestinum</i>				*	*
<i>Phalaris aquatica</i>					*
<i>P. canariensis</i>				*	
<i>Poa annua</i>					*
<i>P. trivialis</i>					*
<i>Rytidosperma caespitosum</i>				*	

	P. Is.	Sth. G.	Hik. S.	H. Crow.	Man.
<i>R. racemosum</i>					*
<i>Spirodela punctata</i>			*		
<i>Sporobolus africanus</i>	*	*		*	*

American fireweed (*Erechtites hieraciifolia* (L.) DC.) in the South Auckland area

P. J. de Lange

Introduction

Webb (*et al.*, 1988) recorded American fireweed (*Erechtites hieraciifolia*) from the Whangamarino, Rotorua and scattered localities in the Bay of Plenty. At that time the species was considered very local. In 1984 material of an unidentified fireweed was collected by R. Irving from the fringes of the Kopouatai Peat Dome, Hauraki Plains, and deposited in the University of Waikato Herbarium (WAIK!). This specimen was determined as *Senecio biserratus* by Irving, although it was clearly not that species. Further specimens of the same taxon were later collected from the Whangamarino Wetlands near Te Kauwhata (WAIK!) and this material was eventually forwarded to CHR, where it was identified as American fireweed by Dr C. J. Webb in 1987. American fireweed superficially resembles a large *Sonchus*, although the \pm glabrous lime green foliage, absence of milky sap, and large, long capitula, easily distinguish this species from *Sonchus* and other erechitoid senecios (Webb *et al.*, 1988).

South Auckland Distribution and Date of Establishment

During January-April 1988 while carrying out field work within the Hauraki Plains peat bogs I noted American fireweed had now become well established in drains and recently disturbed peat around the Kopouatai and Torehape peat bogs. Later in the same year plants were also located on shallow peat near Kawhia in a site where they had not been seen in 1987. Further plants were also seen but not collected in January 1989, from the margins of the Te Mimiha, Orini, and Hoe O Tainui peat bogs of the northern Hamilton Basin. Later in April of the same year I discovered this species in some abundance along the margin of the Kaituna Peat Bog drain skirting Bell Road, Te Puke (WAIK!) and observed that this species was also locally established in the *Leptocarpus* dominated saltmarshes fringing the upper reaches of the Tauranga Harbour. In 1990 plants were collected from open willow car¹ on Motukauere Island, Lake Whangape west of the Waikato River within the Huntly Basin (AK 197790, WAIK!). In January 1991 the first plants were found within Hamilton City where they were collected from disturbed peat bordering Lake Rotokaeo (Forest Lake) (AK 207183, CHR!). From these collections and observations it is now apparent that American fireweed has become well established in the South Auckland area, particularly in areas of recently disturbed peat and associated shrubland. From these observations it appears that the current northern limit of this species is the Torehape peat bog while American fireweed reaches its southern limit at Kawhia. I wonder how long it will take to spread into Auckland and Northland?

Weed Potential

American fireweed, while a large herbaceous plant commonly exceeding 0.8 m in height, is not a significant weed of the wetland situations it favours. Plants are strictly annual and appear incapable of establishing within wetlands maintaining significant cover of indigenous species. This behaviour sets it apart from its close relative Brazilian fireweed (*Erechtites valerianifolia*) which is now well established in many indigenous wetland and shrubland sites from a line north of Auckland and the Coromandel Peninsula.

¹ A 'car' is a Northern hemisphere botanical description of an association dominated by deciduous palustrine trees.