Threatened and Uncommon Plants of the Auckland Region and Kermadec Islands (2)

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Introduction

Since de Lange & Cameron (1997a,b) were published, several new additions and corrections have been received by the authors. In addition changes in the way we perceive rarity have resulted in an alternative way of classifying uncommon and threatened plants (de Lange & Norton 1998). Accordingly, we have updated and revised the Auckland Regional Threatened Plant List (de Lange & Cameron 1997a,b), to incorporate these changes.

Methods and presentation of lists

The process whereby these lists (Appendices 1-3) were prepared is the same as that described by de Lange & Cameron (1997a). Plants are classified according to the threat system devised by de Lange & Norton (1998) and include plants known to be nationally (see Cameron et al. 1995) and regionally at risk, as well as those deemed to be regionally uncommon by the authors but which may be more common outside the region (see de Lange & Cameron 1997a). In addition, those uncommon or threatened plants whose type locality falls within the region are noted.

Appendix 1 lists all those plants deemed to be either uncommon or under threat by the authors within the general Auckland Region (as defined by de Lange & Cameron 1997a). Uncommon or threatened Kermadec Islands plants are listed in Appendix 2, while Appendix 3 covers taxa which were formally listed as either threatened or uncommon but which (for varying reasons) we no longer considered threatened.

Acknowledgements

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References

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APPENDIX 1: Auckland Botanical Society Regional Uncommon Plant List

Abbreviations

N = Nationally Threatened (Cameron et al. 1995)
E = Endemic to defined area
TL = Type Locality
ESL = Extant national southern limit
HSL = Historical national southern limit
ENL = Extant national northern limit
HNL = Historical national northern limit

Presumed extinct

Taxa which have not been recorded (following repeated searches of known or likely places) from the Auckland Region since 1970. Or taxa for which we have very good reason to believe that they have become extinct more recently through gross habitat modification (in such instances the last date of occurrence is noted in brackets).

Fern Allies			
Phyllogloss um drummondii (1971)	**N**	*Brachyglottis myrianthos* (1969)	
		Clianthus puniceus var. *maximus*	**HNL**
Ferns		*Discaria toumatou*	**HNL**
Asplenium pauperequitum	**N, HSL**	*Epilobium chionanthum*	**TL**
		E. hirtigerum	
Dicotyledons		*E. komarovivanum*	**HNL**
Atriplex aff. *billardierei*	**N**	*Gratiola nana*	**N**

Lepidium flexicaule	**N,TL, HNL**	*Viola lyallii*	**TL**
L. obtusatum	**N,E**	*Vittadinia australis*	**HNL**
Leptinella rotundata	**N, HSL**		
Myosotis pygmaea var. *pygmaea*	**?ENL**	**Monocotyledons**	
M. spathulata s.s.		*Empodisma minus* (1868)	
Pimelea arenaria	**N**	*Hierochloe redolens*	
Potentilla anserinoides		*Juncus holoschoenus*	**N**
Ranunculus macropus	**HNL**	*Poa cita*	**HNL**
Rubus schmidelioides var. *schmidelioides*		*Prasophyllum* aff. *patens*	**N**
Sonchus kirkii		*Pterostylis puberula*	**N**
Trilepidea adamsii	**N**	*Schoenus carsei*	
Tupeia antarctica	**N**	*Trisetum lasiorhachis*	**HNL**
Utricularia novaezelandiae[1]			

[1] This assumes that the Whatipu record of this species (Cameron 1992) was based on planted specimens.

Threatened

Taxa whose classification places them within either Critical, Endangered or Vulnerable. These are taxa whose survival is now a matter of conservation priority. Their classification within the three subheadings of threat (Critical, Endangered, and Vulnerable) provides some measure of the degree of risk associated with each taxon.

a. Critical

Taxa whose extinction is considered inevitable within a stated time period (< 10 years) unless there is direct conservation intervention, or which have populations reduced to sufficiently critically low levels, that extinction through stochastic events is a distinct possibility

Mosses		*Hydrocotyle pterocarpa*	
Fissidens berteroi	**ENL**	*Ileostylus micranthus*	**N**
		Lepidium oleraceum	**N**
Ferns		*Myriophyllum robustum*	**N**
Thelypteris confluens	**N**	*Pomaderris polifolia*	**N**
		Senecio scaberulus	**N**
Dicotyledons		*Utricularia protrusa*	**N**
Calystegia marginata	**N, ESL**		
Carmichaelia williamsii	**N**	**Monocotyledons**	
Clianthus puniceus var. *puniceus*	**N, ENL**	*Amphibromus fluitans*	
Colensoa physaloides	**N, ESL**	*Fimbristylis velata*	**N**
Gratiola sexdentata		*Juncus caespiticus*	
Hebe speciosa	**N**	*Pterostylis tasmanica*	**N**

b. Endangered

Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating. Included are taxa whose numbers have been reduced to low levels or whose habitats have been so drastically reduced that they are deemed to be in immediate danger of extinction.

Ferns		*Rorippa divaricata*	**N**
Anogramma leptophylla	**N**	*Rubus squarrosus*	
Azolla filiculioides		*Sicyos australis*	**N**
Ophioglossum petiolatum	**N**		
		Monocotyledons	
Dicotyledons		*Austrofestuca littoralis*	**N**
Crassula hunua	**N, ENL**	*Carex subdola*	
Dactylanthus taylorii	**N, ENL**	*Eleocharis neozelandica*	**N**
Picris burbidgei	**N**	*Schoenus concinnus*	
Pimelea tomentosa	**N**	*S. nitens*	
Plagianthus regius		*Sparganium subglobosum*	
Pseudopanax ferox	**N**	*Spiranthes novaezelandiae*	

c. Vulnerable

Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating. Included are taxa of which most or all populations are decreasing because of over-exploitation, extensive destruction of habitat or other environmental disturbance; and taxa with populations that have been seriously depleted and whose ultimate security is not yet assured.

Ferns		*H. diosmifolia*	**ESL**
Botrychium australe		*Ranunculus acaulis*	
Cyclosorus interruptus	**N**		
Lindsaea viridis		**Monocotyledons**	
Marattia salicina	**N**	*Dichelachne inaequiglumis*	
		Thelymitra aemula	**TL**
Dicotyledons		*T. formosa*	**ENL**
Hebe bishopiana	**N,E**	*T. tholiformis*	**N**

Declining

Taxa with populations that are still abundant but which are either under threat from serious adverse factors throughout their range, or occur as widely scattered, typically small populations, many of which are undergoing declines through loss of reproductive ability, recruitment failure, predation, or through other processes of often subtle habitat change.

Ferns	
Doodia squarrosa	
Dicotyledons	
Alseuosmia banksii	
Australina pusilla	
Daucus glochidiatus	
Coprosma rotundifolia	
Epilobium pallidiflorum	
E. nerterioides	
E. pedunculare	
Euphorbia glauca	**N**
Geranium solanderi "large petals"	
G. retrorsum	
Gunnera dentata	**?ENL**
G. monoica	
Korthalsella salicornioides	**N**
Kunzea sinclairii	**N,E,TL**
Leptinella dioica subsp. *dioica*	
L. dispersa subsp. *rupestris*	
L. tenella	
Mazus novaezeelandica subsp. *impolitus*	**N**
Mimulus repens	
Myosotis petiolata var. *pansa*	**N,TL,ENL**
Nertera scapanioides	
Peraxilla tetrapetala	**N,ENL**
Ranunculus urvilleanus	
Senecio quadridentatus	
S. rufiglandulosus	**ENL**
Streblus banksii	**N**
Monocotyledons	
Caladenia atradenia	
Paspalum orbiculare	
Puccinellia stricta	**ENL**
Trisetum arduanum	
Zoysia minima	

Naturally uncommon

Taxa which are not considered under immediate or obvious threat but which for varying reasons have the potential to become threatened. Three subheadings (Sparse, Vagrant, Range Restricted) are recognised to accommodate the different situations whereby taxa can be naturally uncommon.

a. Sparse

Taxa which occur within typically small and widely scattered populations. This distribution appears wholly natural, and is not considered the result of past or recent anthropogenic disturbance. However, as the candidate taxa usually occur in small numbers at any given site, they are naturally susceptible to extirpation within parts of their range.

Ferns	
Asplenium appendiculatum subsp. *"maritimum"*	**TL,ENL**
Blechnum vulcanicum	
Grammitis rawlingsii s.s.	**N,ESL**
Hypolepis lactea	
Leptolepia novae-zelandiae	
Conifers	
Manoao colensoi	
Dicotyledons	
Ascarina lucida	
Centipeda minima	**N**
Coprosma parviflora var. *parviflora*	**ESL**
Elaeocarpus hookerianus	
Nestegis cunninghamii	
Pittosporum virgatum	**N**
Raukaua simplex	**ENL**
Tetragonia tetragonoides	
Urtica incisa	
Monocotyledons	
Arthropodium candidum	**ENL**
Bulbophyllum tuberculatum	
Carex litorosa	
Corybas cryptanthus	**TL**
Corybas rotundifolius	
Danhatchia australis	**TL**
Gastrodia cunninghamii	
Gastrodia minor	**ENL**
Prasophyllum colensoi	
Luzula banksiana var. *banksiana*	
Thismia rodwayii	

b. Vagrant

Taxa whose presence within the New Zealand botanical region is naturally transitory. These are invariably taxa which have failed to establish themselves significantly beyond their point of introduction through reproductive failure or ecological reasons.

Dicotyledons	
Polygonum plebeium	**N**
Senecio sterquilinus	**ENL**
Monocotyledons	
Pterostylis nutans	**N**

c. Range Restricted

Taxa whose distribution is naturally confined to specific substrates (e.g., ultramafic rock), habitats (high alpine fell field) or geographic areas (e.g., subantarctic islands). Typically, Range Restricted taxa are under no obvious or immediate anthropogenic threat.

Mosses	
Lindbergia maritima	**TL,E**
Ferns	
Dicksonia fibrosa	**ENL**
Hymenophyllum atrovirens	
Pellaea calidirupium	

Dicotyledons		*S. repangae* subsp. *repangae*	**N**
Fuchsia procumbens	**N**	*S. repangae* subsp. *pokohinuensis*	**N,E, TL**
Hebe pubescens s.s.			
Hydrocotyle hydrophila	**HNL**	**Monocotyledons**	
Ipomoea carica	**ESL**	*Cordyline indivisa*	**ENL**
Metrosideros parkinsonii	**ENL**	*Earina aestivalis*	**TL**
Olearia allomii	**N,TL,E**	*Isolepis distigmatosa*	
Pomaderris hamiltonii	**N,E**	*Pterostylis cardiostigma*	
Pseudowintera colorata		*Rytidosperma clavatum*	
Senecio marotiri	**N, ESL**	*Uncinia clavata*	**ENL**

Insufficiently known

Taxa that are suspected but not definitely known to belong to any of the above categories because of lack of information. It is hoped that listing a taxon as "Insufficiently Known" will stimulate studies to find out its true category of threat.

Dicotyledons		**Monocotyledons**	
Epilobium alsinoides		*Potamogeton pectinatus*	
Ranunculus glabrifolius	**ENL**		

Taxonomically indeterminate

This includes : (1) previously described taxa about which there is doubt regarding taxonomic status and which require further investigation; and (2) recently discovered taxa whose taxonomic status has yet to be determined. In both cases, available information suggests that candidate taxa could be under some level of threat.

Ferns			
Grammitis aff. *rawlingsii* (AK 236942)		*H.* "Mokohinau" (AK 150628)	**E**
		Peperomia "purple vein" (AK 206056)	**N, ESL**
Dicotyledons		*Pratia* "Woodhill" (AK 212143)	**N,E**
Hebe "Great Barrier Island" (AK 229442)			

APPENDIX 2: Kermadec Islands

Threatened

a. Critical		b. Endangered		c. Vulnerable
Dicotyledons		**Dicotyledons**		**Dicotyledons**
Hebe breviracemosa	**N,E,TL**	*Boehmeria australis* var. *dealbata*	**N,E,TL**	*Senecio kermadecensis*

Recovering

Taxa whose populations are either: 1. naturally restricted to susceptible habitats (e.g., offshore islands), where their survival is utterly dependent on continual rigid conservation measures (e.g., rodent control), or 2. taxa whose populations were once under serious threat, and as a result of past conservation intervention (e.g., goat eradication), have shown the capacity to recover naturally without further management measures.

Conservation Dependent

Taxa, often with naturally restricted ranges, whose survival is now dependent on the continuation of existing conservation measures.

Dicotyledons *Pittosporum* aff. *crassifolium* **E**

Natural Population Recovery

Taxa whose populations were once reduced to precariously low levels and still occur as small populations but as a result of past conservation intervention, the candidate taxa have demonstrated the ability to recover their former range through natural means, to such an extent that further conservation assistance is no longer required.

Ferns *Cyathea kermadecensis* **N,E,TL**

Naturally uncommon

a. Vagrant

Dicotyledons
Peperomia blanda **N, ?HSL**

Monocotyledons
Lepturus repens **N, ESL**

b. Range Restricted

Dicotyledons
Senecio lautus var. *esperensis* **N,E,TL**

APPENDIX 3: Taxa no longer considered threatened or uncommon

Ferns

Grammitis "pseudorawlingsii" - listed by Druce (1993) without any distinguishing characters. However, we cannot locate herbarium specimens annotated by Druce, nor is it clear what this taxon is, or whether it is really distinct (B.S. Parris pers. comm.). Accordingly, based on existing information we believe that it is inappropriate to continue to list this taxon.

Monocotyledons

Baumea complanata – recorded for the Waitakere Ranges in error.

Obituary – Murray Keighley Jones

Malcolm Simpson

Murray Jones died on 13 July last year, a few years short of his 70th birthday. A member of the Auckland Botanical Society from 1958, with some inactive years before 1988, Murray was a familiar face at meetings and field trips, continuing to turn to the latter even when hip replacement surgery made walking difficult.

Murray had a lifetime of observation of the natural world. His knowledge was often accompanied by personal anecdote which made trips with him more than an exercise in taxonomy.

In May when on a geological field trip, boulder-hopping along a Coromandel coastline, Murray's discourse on indigenuous edible coastal flora was most impressive in its breadth.

Murray was a lifelong member of the Forest and Bird Society, and was well known in the wider Silverdale area for his community work.

We will miss his cheerful smile, his bucolic sense of humour, and his uncanny ability to fall asleep at a meeting when a talk became a little less than dynamic!