

## Threatened and uncommon plants of New Zealand

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**Abstract** A reappraisal of the conservation status of the indigenous New Zealand vascular plant flora is presented. The list comprises 792 taxa (34% of New Zealand's total indigenous vascular flora) in the following categories: Extinct 4 taxa, Acutely Threatened 122 taxa (comprising 47 taxa Nationally Critical, 54 Nationally Endangered, 21 Nationally Vulnerable), Chronically Threatened 96 taxa (comprising Serious Decline 26 taxa, Gradual Decline 70 taxa), At Risk 499 taxa (comprising Sparse 126 taxa, Range Restricted 373 taxa), Non-resident Native 26 taxa (comprising Vagrant 16 taxa, Colonist 10 taxa), and Data Deficient 45 taxa. A further 208 plants are listed as Taxonomically Indeterminate, being those which might warrant further conservation attention once their taxonomic status is clarified. A further 31 named taxa and 18 rated as Taxonomically Indeterminate, and previously considered to be threatened and/or uncommon, are removed from this updated listing. A concordance of plant names is provided. The lists presented use a new threat classification system developed by the New Zealand Department of Conservation for sole use within this country. This paper represents the first time the entire known indigenous vascular flora has been assessed from a conservation perspective since the mid 1970s. A brief analysis of the patterns of rarity exhibited by the taxa listed is presented.

**Keywords** New Zealand; threatened vascular plants; uncommon vascular plants; conservation status; rarity

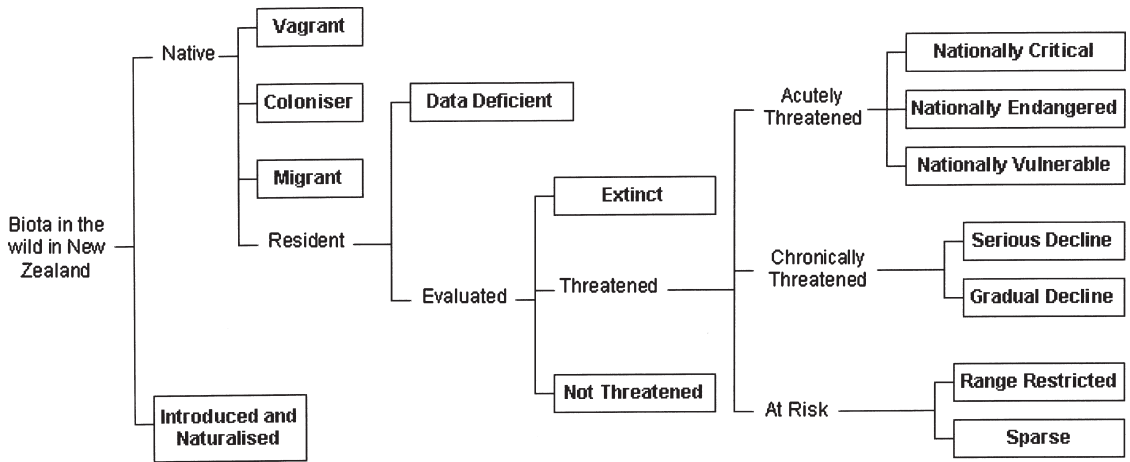


Fig. 1 New Zealand threat classification system (after Molloy et al. 2002). Box denotes a category in the classification.

## INTRODUCTION

The last listing of New Zealand's threatened and uncommon vascular plants was conducted by the New Zealand Threatened Plant Committee in the late 1990s (de Lange et al. 1999). Since that publication, the listing process used has been superseded by the development of a new threat classification system for all New Zealand taxa (Molloy et al. 2002). This system is a refinement of the threat classification framework proposed by de Lange & Norton (1998) and used by the former New Zealand Threatened Plant Committee for vascular plants, and the Species Priority Ranking System developed and used by the New Zealand Department of Conservation for a range of taxonomic groups (Molloy & Davis 1992). The new threat classification system, developed by a specialist panel for the Department of Conservation between March 1999 and December 2001 (Molloy et al. 2002), is a uniquely New Zealand-based conservation status assessment tool (cf. IUCN 1994, 2000), which has now been applied for birds, bats, marine mammals, frogs, reptiles, freshwater and marine fish, freshwater, marine, and terrestrial invertebrates, bryophytes, macro-algae, fungi, and vascular plants indigenous to New Zealand (Hitchmough 2002).

As part of the development of the new system, a new panel undertook a comprehensive re-evaluation of the threatened status of the New Zealand vascular flora between October and December 2001 (Hitchmough 2002). This panel comprised some members of the former New Zealand Threatened Plant committee (de Lange et al. 1999) plus

appointed representatives from the Department of Conservation, universities, and crown research institutes (see authorship list for this paper). In accordance with agreements reached between the New Zealand Botanical Society Committee, which was responsible for the functions of the former New Zealand Threatened Plant Committee, and the Department of Conservation (Rogan 2002), this paper continues the process of reporting, through peer-reviewed literature, the results of this assessment.

This new list updates and supersedes all previous threatened vascular plant listings (Cameron et al. 1993, 1995; de Lange et al. 1999; Hitchmough 2002) for New Zealand and remains valid from the date of publication until the next list is published.

## METHODS

The following lists are for vascular plant taxa (species, subspecies, varieties, forma, and those entities as yet without formal taxonomic rank) believed to be indigenous to the New Zealand Botanical Region (Wardle 1991), excepting those endemic to Macquarie Island\*. Included are indigenous New Zealand plants that also occur naturally overseas (e.g., in Australia), where they may or may

Macquarie Island\*, though biogeographically part of the New Zealand subcontinent, is under the control of Australia, thus, New Zealand-based assessments of its biota are unnecessary.

not be considered threatened (e.g., *Amphibromus fluitans*, *Sebaea ovata*). Initial information for this revision was gathered from the previous three listings of threatened, local, and uncommon plants (Cameron et al. 1993, 1995; de Lange et al. 1999), and *Flora of New Zealand* volumes I–V. This information was supplemented by public submissions and expert opinion regarding the conservation status of the New Zealand indigenous flora. Submissions were solicited from the New Zealand botanical community through the *New Zealand Botanical Society Newsletter* (Hitchmough 2001). Submissions were then collated and reviewed by the vascular plant panel in October 2001.

The placement of candidate taxa in risk categories was based on the criteria outlined by Molloy et al. (2002), panel knowledge, and referral to herbarium records and recent publications. In situations of doubt, provisional assessments of candidate taxa were referred to specialists in species autecology, reproductive biology, demography, historical and current range information, threats, and projected decline patterns, for their advice. All provisional assessments were then re-evaluated by the panel in December 2001, and the interim listings were posted for external comment by Department of Conservation botanists and those who provided the candidate taxa for the listing process. The lists stemming from that exercise were published by the Department of Conservation (Hitchmough 2002). However, as a result of the incomplete listings in that document, new information, further public comment, and our requirement to publish a paper within peer-reviewed literature (Rogan 2002), the entire vascular plant list of Hitchmough (2002) was reassessed by the panel during January and February 2003.

The risk categories used (Appendices 1 and 2) are those defined in Molloy et al. (2002) (Fig. 1), namely “Extinct”, “Acutely Threatened” (Nationally Critical, Nationally Endangered, Nationally Vulnerable), “Chronically Threatened” (Serious Decline, Gradual Decline), “At Risk” (Sparse, Range Restricted), “Non-resident Native” (Coloniser, Vagrant), and “Data Deficient”. However, the definition of “Range Restricted” departs from that offered by Molloy et al. (2002) in that an area of 100 km<sup>2</sup> is used to spatially define the category.

These categories were preferred by Molloy et al. (2002) over the current IUCN (2000) categories because they reflect more accurately the nature of insular rarity as occurs in New Zealand (cf. de Lange & Norton 1998). However, as indicated by Molloy et al. (2002), the New Zealand Threat Classification

System does not preclude individuals from using IUCN Threat Categories, and information used for the New Zealand listings presented here, and held by the Department of Conservation, is available to those wishing to undertake an independent IUCN threat assessment.

Unlike earlier listings, except perhaps that of Given (1976), the present listing has resulted from an assessment of all taxa known to be indigenous to New Zealand. Thus, the taxa listed here are the subset of the entire vascular flora that meet the criteria that define the categories of Extinct, Acutely Threatened, Chronically Threatened, At Risk, Non-resident Native, and Data Deficient (Molloy et al. 2002).

Four lists are presented here (Appendices 1–4). Appendix 1 comprises the main New Zealand Threatened and Uncommon Vascular Plant list. Appendix 2 deals with all Taxonomically Indeterminate plants. Appendix 3 lists the vascular plant taxa no longer considered to be at risk or nationally uncommon, or, in the case of unnamed entities, those whose identity could not be determined by experts and which could not be linked to herbarium specimens. Appendix 4 provides a concordance of names used by de Lange et al. (1999) and altered in this publication. Plants listed in Appendix 2 as Taxonomically Indeterminate are assigned a provisional conservation status using the same criteria as in Appendix 1 but recognising that information on their taxonomic relationships has either not been formally evaluated or remains in doubt.

Authority abbreviations of all published plant names follow those recommended by Brummitt & Powell (1992). Those plants considered to be Taxonomically Indeterminate (212 taxa) are listed by showing their probable affinity (e.g., *Ranunculus* aff. *stylosus*) and, where this is not known or there is a suspected aggregate, names are then listed alphabetically (e.g., *Cardamine* (a) or *Lepidium* aff. *oleraceum* (a), (b), et seq.). All plants accepted in the Taxonomically Indeterminate category are supported with a herbarium voucher. Treatment of families follows Kubitzki (1990) for pteridophytes and gymnosperms, and the recommendations of APG II (2003) for angiosperms. The treatment of genera and species is based on recent publications and the opinions of specialists.

A brief analysis of the lists is also presented. To simplify the interpretations we have combined the At Risk and Non-resident Native categories, referring to these collectively as Naturally Uncommon (although some At Risk taxa have that status as a result of past human activities). For the construction

of some tables we have based our assessments as follows.

Altitudinal zones are based on Wardle (1991) except that we have used "Lowland" to refer to Wardle's "Warm Temperate" zone, and have included Wardle's "Penalpine" and "Nival" zones within our "Alpine" zone. We have also distinguished a coastal zone to refer to those habitats that are exposed to regular influence from the sea as characterised by high saline inputs. The altitudinal zones decrease with increasing latitude so that Campbell Island only has Subalpine and Alpine zones above the Coastal zone.

The habitat types used in the analysis have been adapted from Wardle (1991) and reflect the major physiognomic cover types dominated by indigenous species. "Other scrub" includes scrub communities dominated by *Kunzea* and *Leptospermum* species, and open seral communities such as gumlands. "Tall-tussock grassland" includes those grassland communities dominated by *Chionochloa* and tall tussock-forming *Poa* species (e.g., *Poa foliosa*). "Short-tussock grassland" includes those grassland communities dominated by *Festuca* species, *Rytidosperma* species, and some *Poa* species (e.g., *Poa cita* and *P. colensoi*). "Beach" includes dune systems, and sand, gravel, and boulder beaches.

Individual taxa have been assigned to more than one altitude zone, habitat, or botanical province as appropriate.

## RESULTS AND DISCUSSION

This paper is based on a conservation assessment of the entire indigenous New Zealand vascular plant flora that has identified 792 described taxa of indigenous New Zealand vascular plants (or 34% of the total indigenous vascular flora) as threatened or non-resident native (Appendix 1). Of these (with percentages of the total indigenous vascular flora given in brackets), 4 (0.2%) are believed Extinct, 122 (5.3%) Acutely Threatened, 96 (4.2%) Chronically Threatened, and a further 525 (23%) have been assessed as naturally uncommon (At Risk or Non-resident Native). Forty-five candidate taxa have been assessed as Data Deficient because there was insufficient information to provide a more detailed assessment, although there were reasons to believe that they warrant listing. Aside from these listings we have also assessed a further 208 named taxa and unnamed variants (Appendix 2) whose taxonomic status is either unclear, in question, or which have been proposed to the panel as being potentially distinct but which still require further taxonomic assessment and formal recognition. Because the status of these 208 entities is in question we have not included them in the following assessment of the New Zealand Threatened and Uncommon vascular flora. Furthermore, we have not directly compared the current listing with previous threatened plant listings (Cameron et al. 1993, 1995; de Lange et al. 1999)

**Table 1.** Number of taxonomically determinate threatened and uncommon New Zealand plants with respect to plant family (only families  $\geq 10$  taxa are included).

Family	Extinct	Acutely threatened	Chronically threatened	Naturally uncommon	Data deficient	Totals
Asteraceae		18	10	101	6	135
Poaceae		9	4	64	66	83
Plantaginaceae		11	5	49	1	66
Cyperaceae		4	8	35	4	51
Orchidaceae		4	3	23	4	34
Boraginaceae		10	2	14	5	31
Apiaceae		3	1	26		30
Ranunculaceae		3	4	16		23
Brassicaceae	1	8	6	4	2	21
Fabaceae		9	5	7		21
Ericaceae		3		11		14
Onagraceae			1	10	3	14
Araliaceae			2	10	1	13
Gentianaceae		1		11		12
Pittosporaceae		5	1	5		11
Rubiaceae		2	3	4	1	9
Totals	1	90	55	390	32	568

because the systems used by those publications to assess candidate threatened or uncommon taxa (IUCN 1994; de Lange & Norton 1998) differ markedly from the one now used by the Department of Conservation (Molloy et al. 2002). Nevertheless, as with previous listings, some general comment can be made on the nature and extent of threatened and uncommon taxa within the New Zealand vascular flora.

The main contributing families ( $\geq 10$  taxa, with number of taxa in brackets) remain similar to those listed by de Lange et al. (1999) with the notable addition of the Ericaceae (14), Onagraceae (14), and Araliaceae (13), and increased dominance of the Cyperaceae (51) (Table 1). The main contributing families (i.e., those with greater than 30 taxa) remain largely the same though with significant increases in the number of taxa within each, e.g., Asteraceae (135), Poaceae (83), Plantaginaceae (66; which has increased its prominence due to the recircumscription of many genera previously included in the Scrophulariaceae (APG II 2003)), Orchidaceae (33), Boraginaceae (31), and the marked increase in the Cyperaceae which in the 1999 assessment contributed 20 taxa and now has 51. However, if those instances of natural rarity (taxa listed as At Risk and Non-resident Native) and those assessed as Data Deficient are removed, overall values decrease. The Asteraceae still contribute the greatest number with

29 taxa, followed by the Plantaginaceae (19), the Poaceae (13), the Cyperaceae and Boraginaceae each with 12, and the Orchidaceae with 7 (Table 1). While these assessments still reflect the overall contribution that these large families make to the New Zealand vascular flora (Wilton & Breitwieser 2000; P. J. de Lange & D. A. Norton unpubl. data), the increased dominance of the Poaceae and Cyperaceae at the expense of previous major contributors the Orchidaceae and Brassicaceae reflects our increasing knowledge of these families, the fine tuning the new threat assessment system allows, and the fact that the current assessment is perhaps the first time since initial listings were conducted (Given 1976) that the entire vascular flora has been assessed from a conservation perspective. The same reasons explain why the Ericaceae (including Epacridaceae) and Onagraceae are now so prominent.

Several of the most prominent and species-rich genera in the main contributing families (Table 1) dominate the generic assessment of the lists (Table 2). However, while formerly important genera such as *Hebe* (45), *Myosotis* (30), and *Celmisia* (25) remain dominant, other species-rich yet formerly under-represented genera such as *Chionochloa* (14) and *Epilobium* (13) are now significant contributors, whilst *Carex* (34), *Leptinella* (18), and *Aciphylla* (17) have increased their dominance. When these figures are adjusted to include only those threatened

**Table 2** Number of taxonomically determinate threatened and uncommon New Zealand plants with respect to plant genus (only genera  $\geq 10$  taxa are included).

Genus	Extinct	Acutely threatened	Chronically threatened	Naturally uncommon	Data deficient	Totals
<i>Hebe</i>		9	1	35	1	45
<i>Carex</i>		2	3	25	4	34
<i>Myosotis</i>		9	2	14	5	30
<i>Celmisia</i>		1	1	23		25
<i>Leptinella</i>		4	1	13		18
<i>Ranunculus</i>		1	3	14		18
<i>Aciphylla</i>		2		15		17
<i>Poa</i>		2		14		16
<i>Olearia</i>		5	2	8	1	16
<i>Senecio</i>		2		13		15
<i>Carmichaelia</i>		7	3	4		14
<i>Chionochloa</i>				14		14
<i>Epilobium</i>			1	9	3	13
<i>Brachyglottis</i>		1	3	7		11
<i>Gentiana</i>				11		11
<i>Lepidium</i>	1	6	2	1	1	11
<i>Pittosporum</i>		5	1	5		11
Totals	1	56	23	227	15	322

(Acute and Chronically Threatened), the overall contribution of species-rich genera characterised by highly localised but not necessarily threatened taxa (e.g., *Carex* and *Celmisia*) drops, and *Myosotis* (11), *Hebe* (10), *Carmichaelia* (10), and *Lepidium* (8) become prominent, mirroring patterns in the previous list (de Lange et al. 1999).

With respect to life form, dicotyledonous composite (103) and non-composite herbs (233) comprise 42.4% of the listings, followed by dicotyledonous trees (52) and shrubs (155) which contribute another 26% (Table 3). Monocotyledonous contributions are dominated by grasses (83; 10.4%), sedges (51; 6.5%), and orchids (33; 4.2%), while ferns (40) provide 5% of all listings. These patterns are comparable to those observed by de Lange et al. (1999). Again, if these figures are adjusted to include only those threatened (Acute and Chronically Threatened), non-composite (67) and composite dicotyledonous herbs (17) still make up the majority of threatened taxa (38.8%), followed by dicotyledonous shrubs (48) and trees (24) which comprise 32.9% of all threatened plant listings. Notably, the number of threatened grasses drops from 83 taxa to 13 (5.9% of threatened plant listings), reflecting the high incidence of natural rarity within this group rather than actual threatened status. Indeed, of those grass species listed only *Amphibromus fluitans*, *Cortaderia turbaria*,

*Puccinellia raroflorens*, and *Puccinellia walkeri* subsp. *chathamica* are under serious active threat, the majority of the remaining species being listed as threatened merely because they occupy small vulnerable habitats and have low overall population sizes (cf. Molloy et al. 2002). Sedges (12) also have only a few species actively at risk from external threats (e.g., *Carex inopinata* and *C. dolomitica*); the remaining threatened species are listed because of overall small population size, vulnerable habitats, or through gradual deterioration in overall habitat quality (e.g., *Carex litorosa*). There are also far fewer threatened than naturally uncommon orchids (7; 3.2%), two of which, *Anzybas (Corybas) carsei* and *Linguella (Pterostylis) puberula*, are doubtfully endemic species with very close (if not conspecific) relatives in Australia.

With regard to altitudinal zones (Table 4), most taxa are found within lowland (268), montane (246), and coastal habitats (187), while there is a virtually even split of taxa occupying alpine (142) and subalpine (140) zones, appreciating that some taxa span a number of different altitudinal zones. These figures change markedly when Naturally Uncommon and Data Deficient categories are removed. Though lowland (103), montane (86), and coastal (55) zones still contribute the most threatened taxa, there are far fewer taxa within the alpine (14) and subalpine (20) zones. These patterns reflect the fact

**Table 3** Number of taxonomically determinate threatened and uncommon New Zealand plants with respect to life form.

Life form	Extinct	Acutely threatened	Chronically threatened	Naturally uncommon	Data deficient	Totals
Non-composite dicot herbs	2	34	33	142	21	232
Dicot shrubs	1	30	18	102	4	155
Composite dicot herbs		12	5	83	3	103
Grasses		9	4	64	6	83
Sedges		4	8	35	4	51
Dicot trees		15	9	24		48
Ferns		5	6	28	1	40
Orchids		4	3	23	3	33
Other monocot herbs		3	4	6	2	15
Hemiparasites	1		5	5	1	12
Rushes & allied plants		1	1	5		7
Dicot lianes		2		2		4
Fern allies		2		1		3
Conifers				2		2
Monocot trees				1		1
Saprophytes				1		1
Parasites			1			1

that most taxa within subalpine and alpine habitats are simply narrow-range endemics or sparsely distributed taxa and are not directly threatened (cf. de Lange & Norton 1998).

In terms of habitat type (Table 5), cliff-dwelling taxa dominate the listings with 206 taxa, 53 of which are Threatened. Perhaps surprisingly, closed forest constitutes the next major contributing habitat type with 154 taxa (59 listed as Threatened), followed by

108 taxa which occupy boulder field, talus, and scree habitats; few of the remaining habitat types contributed more than 50 taxa, and most of these become negligible contributors (<10 taxa) when Naturally Uncommon and Data Deficient groupings are removed. Indeed, only boulder field, talus, and scree (22), turf and cushion (15), beach (21), grey scrub (18), and oligotrophic (10) and eu-mesotrophic (15) wetland habitats contribute  $\geq 10$  threatened taxa.

**Table 4** Number of taxonomically determinate threatened and uncommon New Zealand plants with respect to altitudinal zone.

Altitudinal zone	Extinct	Acutely threatened	Chronically threatened	Naturally uncommon	Data deficient	Totals
Lowland	1	53	50	148	13	265
Montane	1	47	38	137	23	246
Coastal	1	29	27	125	5	187
Alpine		5	9	121	7	142
Subalpine	1	8	12	107	12	140

**Table 5** Number of taxonomically determinate threatened and uncommon New Zealand plants with respect to major habitats.

Habitat	Extinct	Acutely threatened	Chronically threatened	Naturally uncommon	Data deficient	Totals
Cliff	1	34	19	146	6	206
Closed forest	1	32	27	87	7	154
Boulder field, talus, and scree		13	9	80	6	108
Turf and cushion	2	6	9	34	3	54
Fell field and herbfield			2	47	3	52
Beach	1	9	12	29	1	52
Flush and seepages		5	2	28	7	42
Tall-tussock grassland		1	1	36	4	42
Coastal scrub		6	1	29	1	37
Short-tussock grassland		3	5	22	5	35
Oligotrophic wetland		6	4	23		33
Grey scrub		10	8	9	1	28
Eu-/mesotrophic wetland		6	9	9	2	26
Other scrub		4	3	18		25
Subalpine scrub		2		16		18
Estuary		2	3	11		16
River bed		3	3	6	3	15
Aquatic			6	3	1	10
Geothermal			2	5		7
Inland saline		3		1	1	5
Open forest		1		2		3
Other grassland			1	1		2
Wetland margin						

**Table 6** Number of taxonomically determinate threatened and uncommon New Zealand plants with respect to botanical provinces (after Wardle 1991).

Botanical province	Extinct	Acutely threatened	Chronically threatened	Naturally uncommon	Data deficient	Totals
Otago	1	28	45	105	19	198
Canterbury	1	39	48	84	19	191
Northland	1	35	38	84	5	163
Auckland	1	28	49	66	7	151
Western Nelson		21	34	81	13	149
Southern North I.	2	24	48	56	12	142
Marlborough		14	36	67	16	133
Southland	1	9	40	70	7	127
Volcanic Plateau	1	11	35	44	10	101
Sounds-Nelson		9	19	46	6	80
Rakiura		4	17	54	5	80
Gisborne		9	31	28	8	76
Taranaki		8	26	27	6	65
Westland		5	19	36	6	66
Fiordland		2	18	42	5	67
Chatham		16	12	36	2	66
Campbell		1		55	3	59
Three Kings		11	6	21	1	39
Kermadec		5	2	29		36

When compared with de Lange et al. (1999), the distribution of threatened and uncommon taxa by botanical province within New Zealand (Table 6) has seen the elevation of Otago (198) and Canterbury (191) above such traditional species-rich "hot spots" as Northland (163) and Western Nelson (149). Notable also has been the increased prominence of Auckland (151) and the southern North Island (142). These differences reflect the use of the Molloy et al. (2002) threat classification scheme and the much larger data base sampled. Again, a more meaningful impression is derived through removal of Naturally Uncommon and Data Deficient categories. In this situation it is Canterbury (87), followed by Auckland (77), Otago (73), Northland (73), and the southern North Island (72) which contain the largest numbers of threatened taxa.

#### ACKNOWLEDGMENTS

This paper has benefited from the specialist advice received from the following people: M. Bayly (Plantaginaceae), F. Venter (*Dracophyllum*), D. Glennly (*Aciphylla*, *Gentiana*), B. Parris (*Doodia*), K. Lloyd (*Chionochloa*, *Festuca*), H. E. Connor (Poaceae), E. Edgar (Poaceae), P. J. Brownsey (Pteridophyta), P. J.

Garnock-Jones (Brassicaceae, Plantaginaceae, Ranunculaceae), L. Perrie (*Polystichum*), D. Cameron (Victorian congeners (Australia)), H. R. Toelken (*Crassula*, *Kunzea*), H. D. Wilson (Banks Peninsula endemic plants), G. Walls (Chatham Island endemic plants), A. Wilton (*Luzula*), I. St George (Orchidaceae), M. Chase (Angiosperm families and genera), and E. Scanlen (Orchidaceae). We also thank the New Zealand Department of Conservation botanists S. Dopson, L. J. Forester, R. Stanley, J. Boow, A. Brandon, P. Cashmore, M. Thorsen, G. La Cock, N. Singers, J. W. D. Sawyer, T. Silbery, C. Jones, N. Head, J. Barkla, and P. Knightbridge for sharing their extensive knowledge of the New Zealand indigenous flora, their advice, and critique of earlier drafts of this paper.

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*Appendices over page*

**Appendix 1** New Zealand threatened and uncommon vascular plant list.

† denotes indigenous taxa found naturally outside New Zealand.

‡ denotes an addition to this list (cf. de Lange et al. 1999).

**Qualifiers**

With the exception of Partial Decline (PD) and Island Endemic (IE) full definitions are provided for the qualifiers used in this list by Molloy et al. (2002). Partial Decline has been used here to indicate taxa (e.g., *Hebe acutiflora*) whose populations are subject to range contraction below the minimum thresholds used by Molloy et al. (2002) for Gradual Decline. Island Endemic refers to taxa (e.g., *Corokia macrocarpa*) confined to a single archipelago beyond the three main islands of New Zealand.

EW Extinct in the Wild  
 CD Conservation Dependent  
 DP Data Poor  
 RC Recovering  
 ST Stable  
 SO Secure Overseas  
 TO Threatened Overseas  
 HI Human Induced  
 RF Recruitment Failure  
 EF Extreme Fluctuations  
 OL One Location  
 PD Partial Decline  
 IE Island Endemic

**Extinct (4)**

A taxon is listed as Extinct when there is no reasonable doubt, after repeated surveys in known or expected habitats at appropriate times (diurnal, seasonal, and annual) and throughout the taxon's historic range, that the last naturally occurring individual has died. Only taxa which have become extinct since 1840 are included in this list.

<i>Lepidium obtusatum</i> Kirk	Brassicaceae
<i>Logania depressa</i> Hook.f.	Loganiaceae
<i>Stellaria elatinooides</i> Hook.f.	Caryophyllaceae
<i>Trilepidea adamsii</i> (Cheeseman) Tiegh.	Loranthaceae

**Acutely Threatened (122)**

Acutely Threatened taxa are those which meet the criteria specified by Molloy et al. (2002) for the categories 1. Nationally Critical, 2. Nationally Endangered, and 3. Nationally Vulnerable.

**1. Nationally Critical (47)**

Listed here are those taxa which qualify as Nationally Critical, because of their small population size ( $\leq 250$  mature individuals), or the number of sub-populations known ( $\leq 2$ , with  $\leq 200$  mature individuals in the largest of these), or their area of occupancy ( $0.01 \text{ km}^2$ ), or their predicted decline rate ( $\geq 80\%$  in the next 10 years). Fuller definitions are provided by Molloy et al. (2002).

<i>Acaena rorida</i> B.H.Macmill. CD, OL	Rosaceae
<i>Alectryon excelsus</i> subsp. <i>grandis</i> (Cheeseman) de Lange et E.K.Cameron RC, IE	Sapindaceae
<i>Anzybas carsei</i> (Cheeseman) D.L.Jones et M.A.Clem. CD, HI, RF, EF, OL	Orchidaceae
<i>Atriplex hollowayi</i> de Lange et D.A.Norton CD, EF	Amaranthaceae
<i>Brachyscome pinnata</i> Hook.f. CD, OL	Asteraceae
<i>Carex dolomitica</i> Heenan et de Lange CD, OL	Cyperaceae
<i>Carmichaelia hollowayi</i> G.Simpson CD, RF	Fabaceae
<i>C. muritai</i> (A.W.Purdie) Heenan CD	Fabaceae
<i>Celmisia macmahonii</i> Kirk var. <i>macmahonii</i> ST	Asteraceae
† <i>Centipeda minima</i> (L.) A.Braun et Asch. subsp. <i>minima</i> SO, EF	Asteraceae
<i>Ceratocephala pungens</i> Garn.-Jones EF, HI	Ranunculaceae
† <i>Christella dentata</i> (Forssk.) Brownsey et Jermy sens. str. CD, RF, OL, SO, HI	Thelypteridaceae
<i>Clianthus puniceus</i> (G.Don) Sol. ex Lindl. CD, OL, HI	Fabaceae
<i>Cortaderia turbaria</i> Connor CD, RF, IE	Poaceae
<i>Coprosma spatulata</i> subsp. <i>hikuruana</i> de Lange et Heenan CD, HI, OL	Rubiaceae
<i>Crassula hunua</i> A.P.Druce HI	Crassulaceae
<i>Davallia tasmanii</i> subsp. <i>cristata</i> von Konrat, Braggins et de Lange CD, ST, RF, OL	Davalliaceae
<i>Gunnera hamiltonii</i> Kirk CD, ST, RF	Gunneraceae

<i>Hebe breviracemosa</i> (W.R.B.Oliv.) Cockayne et Allan	CD, HI, OL, IE	Plantaginaceae
‡ <i>H. societatis</i> Bayly et Kellow	DP, OL	Plantaginaceae
<i>Lepidium banksii</i> Kirk	CD, HI	Brassicaceae
<i>L. sisymbrioides</i> subsp. <i>matau</i> (Petrie) Thell.	CD, HI, EF	Brassicaceae
<i>Leptinella filiformis</i> (Hook.f.) D.G.Lloyd et C.Webb	EW, CD, HI	Asteraceae
<i>Linguella puberula</i> Hook.f.	HI, EF	Orchidaceae
<i>Mazus novaezeelandiae</i> subsp. <i>impolitus</i> f. <i>hirta</i> Heenan	CD, HI	Phrymaceae
<i>Metrosideros bartlettii</i> J.W.Dawson	CD, HI	Myrtaceae
<i>Myosotis albosericca</i> Hook.f.	ST, OL	Boraginaceae
<i>M. angustata</i> Cheeseman	ST, OL	Boraginaceae
<i>M. australis</i> var. <i>lytteltonensis</i> Laing et A.Wall	CD, HI, EF	Boraginaceae
<i>M. cheesemaniae</i> Petrie	DP, EF	Boraginaceae
<i>M. petiolata</i> Hook.f. var. <i>petiolata</i>	DP, HI, OL	Boraginaceae
<i>Neopaxia drucei</i> Heenan	ST, OL	Portulacaceae
<i>Olearia gardneri</i> Heads	CD, HI, RF	Asteraceae
<i>Pachycladon exilis</i> (Heenan) Heenan et A.Mitch.	CD, HI, OL	Brassicaceae
<i>Pennantia baylisiana</i> (W.R.B.Oliv.) G.T.S.Baylis	CD, ST, RF, OL, IE	Pennantiaceae
<i>Poa spania</i> Edgar et Molloy	CD, OL	Poaceae
<i>P. sudicola</i> Edgar	DP, ST	Poaceae
† <i>Pomaderris apetala</i> subsp. <i>maritima</i> N.G.Walsh et F.Coates	CD, SO, RF	Rhamnaceae
<i>Pterostylis micromega</i> Hook.f.	CD, HI, EF	Orchidaceae
<i>Puccinellia raroflorens</i> Edgar	CD, DP	Poaceae
‡ <i>P. walkeri</i> subsp. <i>chathamica</i> (Cheeseman) Edgar	DP	Poaceae
† <i>Sebaea ovata</i> (Labill.) R.Br.	CD, SO, HI, EF	Gentianaceae
‡† <i>Sicyos australis</i> Endl.	CD, TO	Cucurbitaceae
<i>Tecomanthe speciosa</i> W.R.B.Oliv.	CD, RF, OL, IE	Bignoniaceae
<i>Thelymitra sanscilia</i> Hatch	DP, EF	Orchidaceae
‡ <i>Uncinia perplexa</i> Heenan et de Lange	CD, HI, OL	Cyperaceae
<i>Wahlenbergia pygmaea</i> subsp. <i>tararua</i> J.A.Petterson	DP, ST	Campanulaceae

## 2. Nationally Endangered (54)

Listed here are those taxa characterised by their small population size (250–1000 mature individuals),  $\leq 5$  sub-populations known (with either  $\leq 300$  mature individuals in the largest population or the total area of occupancy  $\leq 0.1$  km<sup>2</sup>), and a moderate to high recent predicted decline ( $\geq 30\%$  of the total population or habitat area over the last 100 years, or predicted to occur within the next 10 years); or those taxa typified by small to moderate population sizes (1000–5000 mature individuals),  $\leq 15$  sub-populations (with  $\leq 200$ –500 mature individuals in the largest or the total area of occupancy is  $0.1$ – $1$  km<sup>2</sup>), and a high recent or predicted decline ( $\geq 60\%$  of the total population or habitat area over the last 100 years, or this is predicted to occur within the next 10 years). Fuller definitions are provided by Molloy et al. (2002).

<i>Aciphylla traversii</i> (F.Muell.) Hook.f.	CD, EF, OL	Apiaceae
‡ <i>Ackama nubicola</i> de Lange	CD, RF, OL	Cunoniaceae
† <i>Amphibromus fluitans</i> Kirk	EF, TO	Poaceae
<i>Asplenium pauperequitum</i> Brownsey et P.Jackson	CD, EF, HI, OL, IE	Aspleniaceae
<i>Astelia chathamica</i> (Skottsb.) L.B.Moore	CD, EF, IE	Asteliaceae
<i>Australopyrum calcis</i> Connor et Molloy subsp. <i>calcis</i>	CD, ST, OL	Poaceae
<i>Boehmeria australis</i> var. <i>dealbata</i> (Cheeseman) Sykes	OL, IE	Urticaceae
<i>Brachyglottis huntii</i> (F.Muell.) B.Nord.	CD, RC, HI, IE	Asteraceae
‡ <i>Bulbinella modesta</i> L.B.Moore	DP	Asparagaceae
<i>Carex inopinata</i> Cook	CD	Cyperaceae
<i>Carmichaelia curta</i> Petrie	HI	Fabaceae
<i>C. juncea</i> Hook.f.	CD, EF, HI	Fabaceae
<i>C. kirkii</i> Hook.f.	DP	Fabaceae
<i>C. williamsii</i> Kirk	HI	Fabaceae
<i>Clianthus maximus</i> Colenso		Fabaceae
<i>Coprosma waima</i> A.P.Druce	CD, RC	Rubiaceae
<i>Cortaderia turbaria</i> Connor	CD, RF, IE	Poaceae
† <i>Crassula peduncularis</i> (Smith) F.Meigen	SO, EF	Crassulaceae
<i>Embergeria grandifolia</i> (Kirk) Boulos	CD, IE	Asteraceae
<i>Epacris sinclairii</i> Hook.f.	RC	Ericaceae
<i>Hebe armstrongii</i> (J.B.Armstr.) Cockayne et Allan	CD, HI	Plantaginaceae
<i>H. salicornioides</i> (Hook.f.) Cockayne et Allan	RF	Plantaginaceae

<i>H. speciosa</i> (A.Cunn.) Cockayne et Allan	CD, HI, RF	Plantaginaceae
<i>Helichrysum dimorphum</i> Cockayne	CD, HI, RF	Asteraceae
<i>Heliohebe raoulii</i> subsp. <i>maccaskillii</i> (Allan) Garn.-Jones		Plantaginaceae
† <i>Juncus holoschoenus</i> R.Br. var. <i>holoschoenus</i>	DP, SO	Juncaceae
<i>Lepidium kirkii</i> Petrie	CD, HI, EF	Brassicaceae
<i>L. oleraceum</i> Sparrman sens. str.	CD, HI, EF	Brassicaceae
<i>L. sisymbrioides</i> subsp. <i>kawarau</i> (Petrie) Thell.	CD, HI	Brassicaceae
<i>Leptinella nana</i> (D.G.Lloyd) D.G.Lloyd et C.Webb	CD, EF	Asteraceae
<i>Myosotidium hortensia</i> (Decne.) Baill.	CD, IE	Boraginaceae
<i>Myosotis colensoi</i> (Kirk) Macbride	CD, EF	Boraginaceae
<i>M. petiolata</i> var. <i>pansa</i> L.B.Moore	EF	Boraginaceae
<i>M. pygmaea</i> var. <i>glauca</i> G.Simpson et J.S.Thomson	CD, EF	Boraginaceae
<i>Myosurus minimus</i> subsp. <i>novae-zelandiae</i> (W.R.B.Oliv.) Garn.-Jones	HI, EF	Ranunculaceae
<i>Myrsine argentea</i> Heenan et de Lange	OL	Myrsinaceae
<i>Olearia crebra</i> E.K.Cameron et Heenan	CD, DP, RC	Asteraceae
<i>O. pachyphylla</i> Cheeseman	HI	Asteraceae
<i>O. polita</i> H.D.Wilson et Garn.-Jones	CD	Asteraceae
† <i>Ophioglossum petiolatum</i> Hook.	CD, HI, SO	Ophioglossaceae
<i>Oreomyrrhis colensoi</i> var. <i>delicatula</i> Allan	CD, DP	Apiaceae
† <i>Phylloglossum drummondii</i> Kunze	SO, HI, EF	Lycopodiaceae
† <i>Picris burbridgei</i> S.Holzappel	SO	Asteraceae
<i>Pittosporum serpentinum</i> (de Lange) de Lange	CD, RF, OL	Pittosporaceae
<i>P. obcordatum</i> Raoul	CD, RF	Pittosporaceae
<i>P. patulum</i> Hook.f.	CD, RF	Pittosporaceae
<i>P. turneri</i> Petrie	CD, RC	Pittosporaceae
† <i>Pomaderris phyllicifolia</i> Lodd.	SO, HI	Rhamnaceae
<i>Rorippa divaricata</i> (Hook.f.) Garn.-Jones et Jonsell	CD, EF	Brassicaceae
<i>Senecio kermadecensis</i> Belcher	EF, IE	Asteraceae
<i>S. scaberulus</i> (Hook.f.) D.G.Drury	HI, EF	Asteraceae
<i>Simplicia laxa</i> Kirk	CD, HI	Poaceae
† <i>Todea barbara</i> (L.) Moore	SO	Osmundaceae
† <i>Triglochin palustris</i> L.	SO	Juncaginaceae
<i>Uncinia strictissima</i> Petrie	DP, HI	Cyperaceae

### 3. Nationally Vulnerable (21)

Listed here are those taxa characterised by their small to moderate population size (1000–5000 mature individuals), ≤15 sub-populations (either with 300–500 mature individuals in the largest sub-population or occupying a total area of 0.1–1 km<sup>2</sup>), and with either an initially historic but continuing decline rate of 30–60% in total population size or habitat area over the last 100 years, or a predicted decline of 30–60% in the total population likely in the next 10 years. Fuller definitions are provided by Molloy et al. (2002).

<i>Aciphylla dieffenbachii</i> Kirk	CD, EF, IE	Apiaceae
<i>Australopyrum calcis</i> subsp. <i>optatum</i> Connor et Molloy	CD	Poaceae
<i>Carmichaelia carmichaeliae</i> (Hook.f.) Heenan		Fabaceae
‡ <i>Dracophyllum longifolium</i> var. <i>septentrionale</i> W.R.B.Oliv.	RF, OL	Ericaceae
‡ <i>D. urvilleanum</i> A.Rich.	DP	Ericaceae
<i>Hebe barkeri</i> (Cockayne) Cockayne	CD, OL	Plantaginaceae
<i>H. bishopiana</i> (Petrie) Hatch	CD	Plantaginaceae
<i>H. cupressoides</i> (Hook.f.) Cockayne et Allan	CD, HI	Plantaginaceae
<i>H. perbella</i> de Lange		Plantaginaceae
<i>H. scopulorum</i> Bayly, de Lange et Garn.-Jones	CD	Plantaginaceae
† <i>Hibiscus diversifolius</i> Jacq.	SO	Malvaceae
<i>Lepidium flexicaule</i> Kirk	CD, SO, EF	Brassicaceae
<i>Leptinella featherstonii</i> F.Muell.	CD, IE	Asteraceae
<i>L. rotundata</i> (Cheeseman) D.G.Lloyd et C.Webb		Asteraceae
† <i>Lycopodiella serpentina</i> (Kunze) B.Øllg.	TO	Lycopodiaceae
<i>Muehlenbeckia astonii</i> Petrie	CD, RF	Polygonaceae
‡ <i>Myosotis pygmaea</i> var. <i>minutiflora</i> G.Simpson et J.S.Thomson	CD, EF	Boraginaceae
<i>Olearia hectorii</i> Hook.f.	CD, RF	Asteraceae
<i>Pittosporum dallii</i> Cheeseman	CD, RF	Pittosporaceae
<i>Ranunculus ternatifolius</i> Kirk		Ranunculaceae
<i>Scutellaria novae-zelandiae</i> Hook.f.	CD	Lamiaceae

**Chronically Threatened (97)**

Chronically Threatened taxa are those which meet the criteria specified by Molloy et al (2002) for the categories 1. Serious Decline and 2. Gradual Decline.

**1. Serious Decline (26)**

Taxa qualify if they occur as moderate to large populations where there is a moderate to large predicted decline (with total population size > 5000 mature individuals, > 15 sub-populations and either > 500 mature individuals in the largest sub-population or the total area of occupancy > 1 km<sup>2</sup>, with a predicted decline rate of > 30% in total population over the next 10 years), or taxa exist as small to moderate sized populations with a small to moderate predicted decline (with total population < 5000 mature individuals, ≤ 500 mature individuals in the largest sub-population or total area of occupancy ≤ 1 km<sup>2</sup>, with a predicted decline rate of 5–30% in the total population over the next 10 years). Fuller definitions are provided by Molloy et al. (2002).

‡ <i>Brachyglottis kirkii</i> (Kirk) C.Webb var. <i>kirkii</i> CD, DP	Asteraceae
‡ <i>Carex litorosa</i> Bailey DP, HI	Cyperaceae
<i>Carmichaelia vexillata</i> Heenan RF	Fabaceae
<i>Dactyloctenium aegyptium</i> Hook.f. CD, RF	Balanophoraceae
‡† <i>Daucus glochidiatus</i> (Labill.) Fisch., C.A.Mey. & Avé-Lall. SO, DP	Apiaceae
<i>Drymoanthus flavus</i> St George et Molloy	Orchidaceae
<i>Euphorbia glauca</i> G.Forst. EF	Euphorbiaceae
<i>Heliohebe acuta</i> Garn.-Jones CD, DP	Plantaginaceae
‡ <i>H. laudiana</i> (Raoul) Garn.-Jones CD	Plantaginaceae
<i>Hydatella inconspicua</i> (Cheeseman) Cheeseman EF	Hydatellaceae
<i>Isolepis basilaris</i> Hook.f. HI, EF	Cyperaceae
‡ <i>Kunzea ericoides</i> var. <i>linearis</i> (Kirk) W.Harris HI	Myrtaceae
<i>Leucogenes tarahaoa</i> Molloy OL	Asteraceae
<i>Luzula celata</i> Edgar	Juncaceae
† <i>Marattia salicina</i> Smith CD, SO	Marattiaceae
<i>Mazus novaezeelandiae</i> subsp. <i>impolitus</i> Heenan f. <i>impolitus</i> CD, HI	Phrymaceae
<i>M. novaezeelandiae</i> W.R.Barker subsp. <i>novaezeelandiae</i> CD, HI	Phrymaceae
<i>Myosotis pygmaea</i> Colenso var. <i>pygmaea</i> CD, DP	Boraginaceae
<i>Olearia fimbriata</i> Heads	Asteraceae
<i>Pachycladon stellata</i> (Allan) Heenan et A.Mitch. DP	Brassicaceae
<i>Pimelea tomentosa</i> (J.R.Forst. et G.Forst.) Druce sens. str. EF	Thymelaeaceae
‡ <i>Pittosporum kirkii</i> Hook.f. CD, DP	Pittosporaceae
<i>Plagianthus chathamicus</i> Cockayne CD, RC, IE	Malvaceae
† <i>Plumatochilos tasmanicum</i> (D.L.Jones) D.L.Szlachetko SO, HI, EF	Orchidaceae
<i>Pterostylis paludosa</i> D.L.Jones, Molloy et M.A.Clem EF	Orchidaceae
<i>Tetrachondra hamiltonii</i> D.Oliver DP	Tetrachondraceae

**2. Gradual Decline (70)**

Taxa qualify if they occur as moderate to large populations with small to moderate predicted declines (total population size > 5000 mature individuals, > 15 sub-populations and either > 500 mature individuals in the largest sub-population or the total area of occupancy > 1 km<sup>2</sup>, with a decline rate of 5–30% in total population over the next 10 years, which is predicted to continue beyond 10 years). Fuller definitions are provided by Molloy et al. (2002).

‡ <i>Acaena buchananii</i> Hook.f. DP	Rosaceae
<i>Alepis flavida</i> (Hook.f.) Tiegh. CD, HI	Loranthaceae
† <i>Anogramma leptophylla</i> (L.) Link SO, EF	Pteridaceae
† <i>Austrofestuca littoralis</i> (Labill.) E.B.Alexev. CD, SO, HI	Poaceae
<i>Brachyglottis perdicioides</i> (Hook.f.) B.Nord. CD	Asteraceae
<i>B. sciadophila</i> (Raoul) B.Nord.	Asteraceae
‡ <i>Carex astonii</i> Hamlin DP	Cyperaceae
<i>C. cirrhosa</i> Bergg. DP, HI	Cyperaceae
<i>Carmichaelia crassicaule</i> Hook.f. RF	Fabaceae
<i>C. stevensonii</i> (Cheeseman) Heenan	Fabaceae
‡ <i>Celmisia major</i> Cheeseman var. <i>major</i> HI	Asteraceae
<i>Clematis marmoraria</i> Sneddon CD, RF	Ranunculaceae
<i>Colensoa physaloides</i> (A.Cunn.) Hook.f.	Lobeliaceae
<i>Coprosma obconica</i> Kirk CD, RF	Rubiaceae
<i>C. pedicellata</i> Molloy, de Lange et B.D.Clarkson CD	Rubiaceae
<i>C. wallii</i> Petrie CD, RF	Rubiaceae
<i>Corokia macrocarpa</i> Kirk CD, IE	Cornaceae
‡ <i>Crassula kirkii</i> (Allan) A.P.Druce et D.R.Given DP	Crassulaceae

<i>Crassula manaia</i> A.P.Druce et Sykes CD	Crassulaceae
† <i>Cyclosorus interruptus</i> (Willd.) H.Itô SO	Thelypteridaceae
† <i>Deschampsia cespitosa</i> (L.) Beauv. SO, HI	Poaceae
<i>Desmoschoenus spiralis</i> (A.Rich.) Hook.f. CD, EF	Cyperaceae
‡ <i>Doodia squarrosa</i> Colenso	Blechnaceae
† <i>Drosera pygmaea</i> DC. SO	Droseraceae
<i>Eleocharis neozelandica</i> Kirk EF	Cyperaceae
‡ <i>Epilobium chionanthum</i> Hauss. DP	Onagraceae
† <i>Gratiola nana</i> Benth. SO, HI	Plantaginaceae
‡ <i>Gunnera arenaria</i> Cheeseman	Gunneraceae
‡ <i>Hebe pimeleoides</i> subsp. <i>faucicola</i> Kellow et Bayly	Plantaginaceae
<i>Iphigenia novae-zelandiae</i> (Hook.f.) Baker DP, HI	Colchiaceae
† <i>Isolepis fluitans</i> (L.) R.Br. SO, HI	Cyperaceae
‡ <i>Jovellana sinclairii</i> (Hook.f.) Kranzl. DP	Calceolariaceae
<i>Lepidium sisymbrioides</i> Hook.f. subsp. <i>sisymbrioides</i> CD	Brassicaceae
<i>Lepidium tenuicaule</i> Kirk HI	Brassicaceae
‡ <i>Leptinella serrulata</i> (D.G.Lloyd) D.G.Lloyd et C.Webb	Asteraceae
<i>Libertia peregrinans</i> Cockayne et Allan CD, HI	Iridaceae
<i>Mazus arenarius</i> Heenan, P.N.Johnson et C.Webb	Phrymaceae
<i>Meliccytus flexuosus</i> Molloy et A.P.Druce RF	Violaceae
‡ <i>Mida salicifolia</i> A.Cunn. RF	Santalaceae
<i>Montigena novae-zelandiae</i> (Hook.f.) Heenan DP, RF	Fabaceae
<i>Myosotis brockiei</i> L.B.Moore et M.J.A.Simpson CD	Boraginaceae
<i>Myriophyllum robustum</i> Hook.f. CD	Haloragaceae
‡ <i>Olearia cheesemanii</i> Cockayne et Allan DP	Asteraceae
<i>Ourisia modesta</i> Diels DP	Plantaginaceae
<i>Pachycladon cheesemanii</i> Heenan et A.Mitch. DP	Brassicaceae
<i>P. enysii</i> (Cheeseman) Heenan et A.Mitch.	Brassicaceae
<i>P. fastigiata</i> (Hook.f.) Heenan et A.Mitch.	Brassicaceae
‡† <i>Paspalum orbiculare</i> G.Forst. SO, HI	Poaceae
† <i>Pellaea falcata</i> (R.Br.) Fée SO, HI	Pteridaceae
<i>Peraxilla colensoi</i> (Hook.f.) Tiegh. CD, HI	Loranthaceae
<i>P. tetrapetala</i> Tiegh. CD, HI	Loranthaceae
<i>Pimelea arenaria</i> A.Cunn. sens. str. HI, RF	Thymelaeaceae
‡ <i>P. lyallii</i> Hook.f.	Thymelaeaceae
‡† <i>Potamogeton pectinatus</i> L. DP	Potamogetonaceae
‡ <i>Pseudopanax laetus</i> (Kirk) Philipson RF	Araliaceae
‡ <i>Ranunculus limosella</i> Kirk HI	Ranunculaceae
<i>R. macropus</i> Hook.f. HI	Ranunculaceae
<i>R. recens</i> Kirk var. <i>recens</i> CD	Ranunculaceae
‡ <i>Raoulia monroi</i> Hook.f. EF	Asteraceae
‡ <i>Raukawa edgerleyi</i> (Hook.f.) Seem. CD, RF	Araliaceae
<i>Schoenus carsei</i> Cheeseman HI, SO	Cyperaceae
<i>Selliera rotundifolia</i> Heenan CD	Goodeniaceae
<i>Sonchus kirkii</i> Hamlin HI, EF	Asteraceae
‡ <i>Sophora fulvida</i> (Allan) Heenan et de Lange	Fabaceae
<i>Teucrium parvifolium</i> Hook.f. CD	Verbenaceae
† <i>Thelypteris confluens</i> (Thunb.) C.Morton CD, SO	Thelypteridaceae
‡ <i>Trisetum antarcticum</i> (G.Forst.) Trin. HI	Poaceae
<i>Tupeia antarctica</i> (G.Forst.) Cham. et Schlecht CD, HI	Loranthaceae
<i>Urtica linearifolia</i> (Hook.f.) Cockayne CD	Urticaceae
† <i>Utricularia australis</i> R.Br. HI	Lentibulariaceae
<i>U. delicatula</i> Cheeseman HI	Lentibulariaceae

### At Risk (501)

These are taxa which do not qualify as Acutely or Chronically Threatened but which exist as widely scattered, small sub-populations or have restricted ranges. Although such taxa are not currently considered threatened, their small population size and aspects of their biology and ecology place them at potential risk, which is why they are listed here as either 1. Sparse or 2. Range Restricted.

**1. Sparse (126)**

Taxa that, for largely undetermined reasons, 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.

‡ <i>Aciphylla multisecta</i> Cheeseman	Apiaceae
‡ <i>A. subflabellata</i> W.R.B.Oliv. DP	Apiaceae
<i>Adelopetalum tuberculatum</i> (Colenso) D.L.Jones, M.A.Clem. et Molloy	Orchidaceae
‡ <i>Agrostis imbecilla</i> Zotov	Poaceae
‡ <i>A. oresbia</i> Edgar	Poaceae
<i>Anemanthele lessoniana</i> (Steud.) Veldkamp DP	Poaceae
‡ <i>Anemone tenuicaulis</i> (Cheeseman) Parkin et Sledge	Ranunculaceae
<i>Anzybas rotundifolius</i> (Hook.f.) D.L.Jones et M.A.Clem.	Orchidaceae
<i>Asplenium cimmeriorum</i> Brownsey et de Lange	Aspleniaceae
‡ <i>A. scleroprium</i> Hombr.	Aspleniaceae
‡ <i>Atriplex buchananii</i> (Kirk) Cheeseman	Amaranthaceae
‡† <i>Blechnum norfolkianum</i> (Heward) C.Chr. TO	Blechnaceae
‡† <i>Botrychium australe</i> R.Br. DP, SO, EF	Ophioglossaceae
† <i>Calochilus paludosus</i> R.Br. SO, EF	Orchidaceae
† <i>C. robertsonii</i> Benth. SO, EF	Orchidaceae
† <i>Calystegia marginata</i> R.Br. SO, EF	Convolvulaceae
‡ <i>Carex berggrenii</i> Petrie	Cyperaceae
<i>C. capillacea</i> Boott	Cyperaceae
<i>C. chathamica</i> C.B.Clarke IE	Cyperaceae
<i>C. edgariae</i> Hamlin DP	Cyperaceae
‡ <i>C. enysii</i> Petrie DP	Cyperaceae
‡ <i>C. lachenalii</i> subsp. <i>parkeri</i> Petrie DP	Cyperaceae
‡ <i>C. muelleri</i> Petrie	Cyperaceae
<i>C. tenuiculmis</i> (Petrie) Heenan et de Lange	Cyperaceae
<i>Celmisia hookeri</i> Cockayne	Asteraceae
† <i>Centrolepis strigosa</i> (R.Br.) Roem. et Schult. SO, EF	Centrolepidaceae
‡ <i>Chionochoa vireta</i> H.E.Connor DP	Poaceae
‡ <i>Clematis petriei</i> Allan	Ranunculaceae
<i>Convolvulus fracto-saxosa</i> Petrie	Convolvulaceae
<i>C. verecundus</i> Allan	Convolvulaceae
<i>Coprosma intertexta</i> G.Simpson	Rubiaceae
‡† <i>Corunastylis nuda</i> (Hook.f.) D.L.Jones et M.A.Clem. SO, EF	Orchidaceae
‡† <i>C. pumila</i> (Hook.f.) D.L.Jones et M.A.Clem. SO, EF	Orchidaceae
‡† <i>Crassula helmsii</i> (Kirk) Cockayne SO	Crassulaceae
<i>C. multicaulis</i> (Petrie) A.P.Druce et Given EF	Crassulaceae
<i>C. ruamahanga</i> A.P.Druce	Crassulaceae
‡ <i>Deyeuxia youngii</i> (Hook.f.) Buchanan	Poaceae
‡ <i>Doodia mollis</i> Parris	Blechnaceae
‡ <i>Epilobium petraeum</i> Heenan	Onagraceae
<i>E. purpuratum</i> Hook.f.	Onagraceae
‡ <i>Euchiton ensifer</i> (D.G.Drury) Holub DP	Asteraceae
‡ <i>E. paludosus</i> (Petrie) Holub DP	Asteraceae
‡† <i>Fimbristylis velata</i> R.Br. SO	Cyperaceae
<i>Fuchsia procumbens</i> R.Cunn. ex A.Cunn.	Onagraceae
‡ <i>Gentiana lineata</i> Kirk	Gentianaceae
‡ <i>Gingidia trifoliolata</i> (Hook.f.) DP	Apiaceae
<i>Gnaphalium luteoalbum</i> var. <i>compactum</i> Kirk DP, EF	Asteraceae
<i>Grammitis rawlingsii</i> Parris	Grammitidaceae
‡ <i>G. rigida</i> Hombr. DP, SO	Grammitidaceae
‡ <i>Halocarpus kirkii</i> (Parl.) Quinn RF	Podocarpaceae
<i>Hebe annulata</i> (Petrie) Cockayne et Allan	Plantaginaceae
<i>H. dilatata</i> G.Simpson et J.S.Thomson	Plantaginaceae
<i>H. tairawhiti</i> B.D.Clarkson et Garn.-Jones	Plantaginaceae
‡ <i>Hierochloa fusca</i> Zotov DP	Poaceae
‡ <i>Hymenochilus tanypodus</i> (D.L.Jones, Molloy et M.A. Clem.) D.L.Jones, M.A.Clem. et Molloy EF	Orchidaceae

‡ <i>H. tristis</i> (Colenso) D.L.Jones, M.A.Clem. et Molloy <sub>HI, EF</sub>	Orchidaceae
‡ <i>Hymenophyllum atrovirens</i> Colenso	Hymenophyllaceae
† <i>Hypolepis amaurochis</i> (Kunze) Hook. <sub>SO, EF</sub>	Dennstaedtiaceae
‡† <i>H. dicksonioides</i> (Kunze) Hook. <sub>SO, EF</sub>	Dennstaedtiaceae
‡ <i>Kirkianella novae-zelandiae</i> (Hook.f.) Allan f. <i>novae-zelandiae</i> <sub>HI</sub>	Asteraceae
<i>Korthalsella salicornioides</i> (A.Cunn.) Tiegh. <sub>EF</sub>	Santalaceae
‡ <i>Lagenifera lanata</i> A.Cunn.	Asteraceae
<i>Lepidium naufragorum</i> Garn.-Jones et D.A.Norton <sub>ST</sub>	Brassicaceae
‡ <i>Leptinella dispersa</i> (D.G.Lloyd) D.G.Lloyd et C.Webb subsp. <i>dispersa</i>	Asteraceae
‡ <i>L. tenella</i> (A.Cunn.) D.G.Lloyd et C.Webb	Asteraceae
‡ <i>Libocedrus plumosa</i> (D.Don) Sarg.	Cupressaceae
‡ <i>Lindsaea viridis</i> Colenso	Dennstaedtiaceae
‡† <i>Macrothelypteris torresiana</i> (Gaudich.) Ching <sub>SO, EF</sub>	Thelypteridaceae
<i>Meliclytus crassifolius</i> (Hook.f.) F.Muell. sens. str. <sub>DP</sub>	Violaceae
<i>Microlaena carsei</i> Cheeseman	Poaceae
‡ <i>Microsorium novae-zelandiae</i> (Baker) Copel.	Polypodiaceae
‡† <i>Mimulus repens</i> R.Br. <sub>DP, SO</sub>	Phrymaceae
<i>Muehlenbeckia ephedroides</i> Hook.f.	Polygonaceae
‡ <i>Myosotis saxosa</i> Hook.f. <sub>DP</sub>	Boraginaceae
‡ <i>M. spathulata</i> Forst.f. var. <i>spathulata</i> <sub>DP</sub>	Boraginaceae
‡ <i>M. tenericaulis</i> Petrie <sub>DP</sub>	Boraginaceae
‡ <i>Neopaxia erythrophylla</i> Heenan <sub>DP</sub>	Portulacaceae
<i>Olearia capillaris</i> Buchanan	Asteraceae
<i>O. fragrantissima</i> Petrie	Asteraceae
‡ <i>O. lineata</i> (Kirk) Cockayne <sub>RF</sub>	Asteraceae
† <i>Peperomia tetraphylla</i> (G.Forst.) Hook. et Arn. <sub>SO</sub>	Piperaceae
† <i>Picris angustifolia</i> subsp. <i>merxmuelleri</i> Lack et S.Holzapfel <sub>EF</sub>	Asteraceae
‡ <i>Pimelea poppelwellii</i> Petrie	Thymelaeaceae
‡ <i>P. pseudolyalii</i> Allan	Thymelaeaceae
‡† <i>Pisonia brunoniana</i> Endl. <sub>SO, HI</sub>	Nyctaginaceae
‡ <i>Pittosporum ellipticum</i> Kirk	Pittosporaceae
<i>P. pimeleoides</i> R.Cunn. subsp. <i>pimeleoides</i>	Pittosporaceae
<i>P. virgatum</i> Kirk	Pittosporaceae
<i>Plantago obconica</i> Sykes	Plantaginaceae
† <i>Pleurosorus rutifolius</i> (R.Br.) Fée <sub>SO</sub>	Aspleniaceae
‡ <i>Poa incrassata</i> Petrie	Poaceae
<i>Pomaderris hamiltonii</i> L.B.Moore <sub>RC</sub>	Rhamnaceae
<i>Pseudopanax ferox</i> Kirk <sub>CD, RF</sub>	Araliaceae
‡ <i>P. macintyreii</i> Cheeseman	Araliaceae
<i>Pterostylis cernua</i> D.L.Jones, Molloy et M.A.Clem. <sub>EF</sub>	Orchidaceae
<i>Ranunculus maculatus</i> Cockayne et Allan	Ranunculaceae
‡ <i>R. simulans</i> Garn.-Jones	Ranunculaceae
‡ <i>Raoulia beauverdii</i> Cockayne	Asteraceae
‡ <i>Rytidosperma merum</i> Connor et Edgar <sub>DP</sub>	Poaceae
‡ <i>Scandia rosifolia</i> (Hook.) J.W.Dawson <sub>DP</sub>	Apiaceae
‡† <i>Schizaea dichotoma</i> (L.) J.E.Sm. <sub>SO</sub>	Schizaeaceae
‡ <i>Schizeilema pallidum</i> (Kirk) Domin <sub>DP</sub>	Araliaceae
‡ <i>Senecio carnosulus</i> (Kirk) C.Webb	Asteraceae
<i>S. dunedinensis</i> Belcher <sub>EF</sub>	Asteraceae
<i>S. marotiri</i> C.J.Webb	Asteraceae
<i>S. repangae</i> de Lange et B.G.Murray subsp. <i>repangae</i> <sub>EF</sub>	Asteraceae
‡ <i>Solanum aviculare</i> f. <i>latifolium</i> G.T.S.Baylis	Solanaceae
<i>Stegostyla atradenia</i> (D.L.Jones, Molloy et M.A.Clem.) D.L.Jones et M.A.Clem	Orchidaceae
‡† <i>Sticherus flabellatus</i> (R.Br.) H.St.John <sub>SO</sub>	Gleicheniaceae
‡ <i>Streblus banksii</i> (Cheeseman) C.Webb	Moraceae
† <i>Tetragonia tetragonioides</i> (Pallas) Kuntze <sub>EF</sub>	Aizoaceae
‡ <i>Thelymitra formosa</i> Colenso <sub>DP, EF</sub>	Orchidaceae
<i>T. tholiformis</i> Molloy et Hatch <sub>EF</sub>	Orchidaceae
† <i>Thismia rodwayi</i> F.Muell. <sub>DP, SO, EF</sub>	Burmanniaceae
‡ <i>Tmesipteris sigmatifolia</i> Chinnock	Psilotaceae
<i>Townsonia deflexa</i> Cheeseman	Orchidaceae



‡ <i>Traversia baccharoides</i> Hook.f.	Asteraceae
‡ <i>Trichomanes colensoi</i> Hook.f. DP	Hymenophyllaceae
‡ <i>Trisetum drucei</i> Edgar DP	Poaceae
‡ <i>Uncinia elegans</i> (Kük.) Hamlin	Cyperaceae
‡ <i>U. longifructus</i> (Kük.) Petrie	Cyperaceae
<i>U. purpurata</i> Petrie	Cyperaceae
‡ <i>U. sinclairii</i> Boott	Cyperaceae
‡ <i>U. viridis</i> (C.B.Clarke) Edgar	Cyperaceae
<i>Urtica aspera</i> Petrie DP	Urticaceae
<i>Wahlenbergia congesta</i> (Cheeseman) N.E.Brown subsp. <i>congesta</i>	Campanulaceae

## 2. Range Restricted (373)

Taxa whose distribution is naturally confined to specific substrates (e.g., ultramafic rock), habitats (e.g., high alpine fell field), or geographic areas (e.g., subantarctic islands). Range Restricted taxa occupy an area of <100 km<sup>2</sup> and within that area they are under no obvious or immediate threat. However, because of their distribution they are naturally susceptible to extirpation.

‡ <i>Abrotanella muscosa</i> Kirk IE	Asteraceae
‡ <i>A. patearoa</i> Heads	Asteraceae
‡ <i>A. rostrata</i> Swenson	Asteraceae
‡ <i>A. rosulata</i> Hook.f. OL, IE	Asteraceae
‡ <i>A. spathulata</i> Hook.f.	Asteraceae
‡ <i>Acaena microphylla</i> var. <i>pauciglochidiata</i> Bitter	Rosaceae
‡ <i>A. minor</i> Allan	Rosaceae
‡ <i>A. tesca</i> B.H.Macmill.	Rosaceae
<i>Achnatherum petriei</i> (Buchanan) S.W.L.Jacobs et J.Everett CD	Poaceae
‡ <i>Aciphylla cartilaginea</i> Petrie	Apiaceae
‡ <i>A. congesta</i> Cheeseman	Apiaceae
‡ <i>A. crosby-smithii</i> Petrie	Apiaceae
‡ <i>A. dissecta</i> (Kirk) W.R.B.Oliv.	Apiaceae
‡ <i>A. lecomtei</i> J.W.Dawson	Apiaceae
<i>A. leighii</i> Allan	Apiaceae
<i>A. montana</i> var. <i>gracilis</i> (W.R.B.Oliv.) J.W.Dawson	Apiaceae
‡ <i>A. spedenii</i> Cheeseman	Apiaceae
<i>A. squarrosa</i> var. <i>flaccida</i> Kirk	Apiaceae
<i>A. stannensis</i> J.W.Dawson	Apiaceae
‡ <i>A. takahea</i> W.R.B.Oliv.	Apiaceae
‡ <i>A. traillii</i> Kirk	Apiaceae
<i>A. trifoliolata</i> Petrie DP	Apiaceae
‡ <i>Agrostis subulata</i> Hook.f.	Poaceae
<i>Anisotome acutifolia</i> (Kirk) Cockayne OL, IE	Apiaceae
‡ <i>A. antipoda</i> Hook.f. OL	Apiaceae
‡ <i>A. latifolia</i> Hook.f.	Apiaceae
‡ <i>A. lyallii</i> Hook.f.	Apiaceae
‡ <i>Apium prostratum</i> subsp. <i>denticulatum</i> P.S.Short IE	Apiaceae
‡† <i>Arachniodes aristata</i> (G.Forst.) Tindale SO, OL	Dryopteridaceae
<i>Argyrotegium nitidulum</i> (Hook.f.) J.M.Ward et Breitw. SO	Asteraceae
‡ <i>Asplenium chathamense</i> Brownsey IE	Aspleniaceae
‡† <i>Asplenium shuttleworthianum</i> Kunze SO, OL	Aspleniaceae
‡ <i>Astelia nivcola</i> var. <i>moriceae</i> L.B.Moore	Asteliaceae
† <i>Atriplex billardierei</i> (Moq.) Hook.f. CD, TO, HI	Amaranthaceae
<i>Baumea complanata</i> (Bergg.) Blake HI	Cyperaceae
<i>Brachyglottis arborescens</i> W.R.B.Oliv. IE	Asteraceae
<i>B. bifistulosa</i> (Hook.f.) B.Nord. DP	Asteraceae
<i>B. compacta</i> (Kirk) B.Nord. OL	Asteraceae
‡ <i>B. myrianthos</i> (Cheeseman) D.G.Drury	Asteraceae
<i>B. pentacopa</i> (D.G.Drury) B.Nord. OL	Asteraceae
‡ <i>B. stewartiae</i> (J.B.Armstr.) B.Nord. DP	Asteraceae
<i>B. turneri</i> (Cheeseman) C.Webb	Asteraceae
<i>Brachyscome humilis</i> G.Simpson et J.S.Thomson DP	Asteraceae
<i>B. linearis</i> (Petrie) Druce DP	Asteraceae
‡ <i>Bulbinella rossii</i> (Hook.f.) Cheeseman	Asparagaceae

‡ <i>B. gibbsii</i> Cockayne var. <i>gibbsii</i>	Asparagaceae
<i>B. talbotii</i> L.B.Moore DP, OL	Asparagaceae
‡ <i>Callitriche aucklandica</i> R.Mason IE	Plantaginaceae
‡ <i>C. petriei</i> subsp. <i>chathamensis</i> R.Mason IE	Plantaginaceae
‡† <i>Canavalia rosea</i> (Sw.) DC. SO, OL	Fabaceae
<i>Cardamine lacustris</i> (Garn.-Jones et P.N.Johnson) Heenan EF	Brassicaceae
<i>Carex albula</i> Allan	Cyperaceae
‡ <i>C. decurtata</i> Cheeseman	Cyperaceae
‡ <i>C. devia</i> Cheeseman	Cyperaceae
<i>C. elingamita</i> Hamlin RC, IE	Cyperaceae
‡ <i>C. filamentosa</i> Petrie	Cyperaceae
‡ <i>C. fretalis</i> Hamlin DP	Cyperaceae
‡ <i>C. impexa</i> K.A.Ford	Cyperaceae
‡ <i>C. kermadecensis</i> Petrie IE	Cyperaceae
<i>C. ophiolithica</i> de Lange et Heenan CD, ST, OL	Cyperaceae
‡ <i>C. pleiostachys</i> C.B.Clarke	Cyperaceae
‡ <i>C. pterocarpa</i> Petrie	Cyperaceae
‡ <i>C. rubicunda</i> Petrie	Cyperaceae
‡ <i>C. tahoata</i> Hamlin	Cyperaceae
‡ <i>C. trachycarpa</i> Cheeseman	Cyperaceae
<i>C. traversii</i> Kirk	Cyperaceae
<i>C. uncifolia</i> Cheeseman	Cyperaceae
<i>C. ventosa</i> C.B.Clarke IE	Cyperaceae
<i>Carmichaelia appressa</i> G.Simpson OL	Fabaceae
<i>C. astonii</i> G.Simpson	Fabaceae
<i>C. compacta</i> Petrie	Fabaceae
<i>C. torulosa</i> (Kirk) Heenan ST, RF	Fabaceae
<i>Cassinia amoena</i> Cheeseman CD, ST, OL	Asteraceae
<i>Celmisia adamsii</i> var. <i>adamsii</i> Cheeseman	Asteraceae
<i>C. adamsii</i> var. <i>rugulosa</i> Cheeseman OL	Asteraceae
‡ <i>C. clavata</i> G.Simpson et G.Thomson IE	Asteraceae
‡ <i>C. cockayniana</i> Petrie	Asteraceae
<i>C. cordatifolia</i> Buchanan var. <i>cordatifolia</i>	Asteraceae
‡ <i>C. gibbsii</i> Cheeseman	Asteraceae
‡ <i>C. glandulosa</i> var. <i>latifolia</i> Cockayne OL	Asteraceae
<i>C. inaccessa</i> Given DP	Asteraceae
<i>C. insignis</i> Martin ST	Asteraceae
‡ <i>C. lindsayi</i> Hook.f.	Asteraceae
<i>C. mackaui</i> Raoul	Asteraceae
<i>C. macmahonii</i> var. <i>hadfieldii</i> Martin	Asteraceae
‡ <i>C. major</i> var. <i>brevis</i> Allan OL	Asteraceae
‡ <i>C. markii</i> Given et W.R.Lee	Asteraceae
<i>C. morgani</i> Cheeseman	Asteraceae
<i>C. philoeremna</i> Given	Asteraceae
‡ <i>C. polyvena</i> G.Simpson et G.Thomson	Asteraceae
‡ <i>C. rigida</i> (Kirk) Cockayne	Asteraceae
<i>C. rutlandii</i> Kirk	Asteraceae
<i>C. spectabilis</i> subsp. <i>lanceolata</i> (Hook.f.) D.R.Given	Asteraceae
<i>C. spedenii</i> G.Simpson	Asteraceae
<i>C. thomsonii</i> Cheeseman OL	Asteraceae
† <i>Cenchrus caliculatus</i> Cav. TO, OL	Poaceae
<i>Centrolepis minima</i> Kirk	Centrolepidaceae
‡ <i>Chionochoa acicularis</i> Zotov	Poaceae
‡ <i>C. antarctica</i> (Hook.f.) Zotov	Poaceae
‡ <i>C. beddiei</i> Zotov	Poaceae
‡ <i>C. bromoides</i> (Hook.f.) Zotov	Poaceae
‡ <i>C. crassiuscula</i> (Kirk) Zotov subsp. <i>crassiuscula</i>	Poaceae
‡ <i>C. crassiuscula</i> subsp. <i>directa</i> Connor	Poaceae
‡ <i>C. defracta</i> Connor	Poaceae
<i>C. flavicans</i> f. <i>temata</i> Connor OL	Poaceae
‡ <i>C. juncea</i> Zotov	Poaceae

‡ <i>C. lanea</i> Connor	Poaceae
‡ <i>C. ovata</i> (Buchanan) Zotov	Poaceae
‡ <i>C. rubra</i> subsp. <i>rubra</i> var. <i>inermis</i> Connor OL	Poaceae
‡ <i>C. spiralis</i> Zotov	Poaceae
<i>Chionohebe glabra</i> (Cheeseman) Heads DP	Plantaginaceae
<i>C. myosotoides</i> (Ashwin) B.Briggs et Ehrend. DP	Plantaginaceae
‡ <i>Colobanthus hookeri</i> Cheeseman	Caryophyllaceae
‡ <i>C. squarrosus</i> subsp. <i>drucei</i> Sneddon	Caryophyllaceae
‡ <i>C. squarrosus</i> Cheeseman subsp. <i>squarrosus</i>	Caryophyllaceae
<i>Coprosma distantia</i> (de Lange et R.O.Gardner) de Lange CD, OL	Rubiaceae
<i>C. neglecta</i> Cheeseman	Rubiaceae
<i>C. talbrockiei</i> L.B.Moore et R.Mason	Rubiaceae
<i>Cordyline kaspar</i> W.R.B.Oliv.	Asparagaceae
<i>Corokia macrocarpa</i> Kirk CD, IE	Argophyllaceae
<i>Coriaria potsiana</i> W.R.B.Oliv.	Coriariaceae
‡ <i>Craspedia robusta</i> var. <i>pedicellata</i> (Kirk) Allan	Asteraceae
<i>Cyathea kermadecensis</i> W.R.B.Oliv. RC, IE	Cyatheaceae
‡ <i>C. milnei</i> Hook.f. IE	Cyatheaceae
‡ <i>Damnamenia vernicosa</i> (Hook.f.) D.R.Given	Asteraceae
<i>Deyeuxia lacustris</i> Edgar DP	Poaceae
<i>Dichelachne lautumia</i> Edgar et Connor ST	Poaceae
† <i>Dicranopteris linearis</i> (Burm.f.) Underw. SO	Gleicheniaceae
‡ <i>Disphyma australe</i> subsp. <i>stricticaule</i> Chinnock OL, IE	Aizoaceae
‡ <i>D. papillatum</i> Chinnock IE	Aizoaceae
‡ <i>Doodia milnei</i> (Carr.) Parris OL, IE	Blechnaceae
‡ <i>Dracophyllum arboreum</i> Cockayne IE	Ericaceae
‡ <i>D. densum</i> W.R.B.Oliv.	Ericaceae
<i>D. marmoricola</i> S.Venter	Ericaceae
<i>D. ophioliticum</i> S.Venter	Ericaceae
‡ <i>D. patens</i> W.R.B.Oliv.	Ericaceae
‡ <i>D. trimorphum</i> W.R.B.Oliv.	Ericaceae
‡ <i>D. uniflorum</i> var. <i>frondosum</i> G.Simpson PD	Ericaceae
<i>Elingamita johnsonii</i> G.T.S.Baylis OL, IE	Myrsinaceae
‡ <i>Elymus apricus</i> Á.Löve et Connor	Poaceae
‡ <i>E. falcis</i> Connor	Poaceae
‡ <i>E. sacandros</i> Connor	Poaceae
‡ <i>Epilobium astonii</i> (Allan) Raven et Raven	Onagraceae
‡ <i>E. brevipes</i> Hook.f.	Onagraceae
‡ <i>E. confertifolium</i> Hook.f.	Onagraceae
‡ <i>E. forbesii</i> Allan	Onagraceae
<i>E. margaretiae</i> Brockie	Onagraceae
‡ <i>E. wilsonii</i> Petrie	Onagraceae
‡ <i>Euphrasia drucei</i> M.B.Ashwin	Orobanchaceae
‡ <i>E. repens</i> Hook.f.	Orobanchaceae
‡ <i>E. wettsteiniana</i> du Rietz	Orobanchaceae
<i>Ewartiothamnus sinclairii</i> (Hook.f.) Anderb.	Asteraceae
<i>Festuca coxii</i> (Petrie) Hack. IE	Poaceae
<i>F. luciarum</i> Connor DP	Poaceae
‡ <i>F. mathewsii</i> subsp. <i>pisamontis</i> Connor	Poaceae
‡ <i>F. ultramafica</i> Connor OL	Poaceae
<i>Geniostoma ligustrifolium</i> var. <i>crassum</i> Cheeseman CD, ST, OL	Loganiaceae
‡ <i>G. ligustrifolium</i> var. <i>maius</i> Cheeseman RC, IE	Loganiaceae
<i>Gentiana antarctica</i> Kirk OL, IE	Gentianaceae
<i>G. antipoda</i> Kirk OL, IE	Gentianaceae
‡ <i>G. astonii</i> Petrie ST	Gentianaceae
<i>G. bellidifolia</i> var. <i>magnifica</i> Kirk ST	Gentianaceae
‡ <i>G. chathamica</i> Cheeseman IE	Gentianaceae
‡ <i>G. cerina</i> Hook.f. IE	Gentianaceae
‡ <i>G. concinna</i> Hook.f. IE	Gentianaceae
‡ <i>G. filipes</i> Cheeseman	Gentianaceae
<i>G. gibbsii</i> Petrie OL	Gentianaceae

<i>G. lilliputiana</i> C.Webb EF	Gentianaceae
<i>Geranium traversii</i> Hook.f. IE	Geraniaceae
<i>Geum divergens</i> Cheeseman	Rosaceae
‡ <i>Gingidia ensyis</i> (Kirk) J.W.Dawson DP	Apiaceae
‡ <i>G. flabellata</i> (Kirk) J.W.Dawson IE	Apiaceae
‡ <i>Haastia pulvinaris</i> var. <i>minor</i> Laing	Asteraceae
‡ <i>H. recurva</i> var. <i>wallii</i> Cockayne DP	Asteraceae
<i>Haloragis erecta</i> subsp. <i>cartilaginea</i> (Cheeseman) Orchard CD, ST, OL	Haloragaceae
<i>Hebe acutiflora</i> Cockayne PP	Plantaginaceae
<i>H. adamsii</i> (Cheeseman) Cockayne et Allan OL	Plantaginaceae
‡ <i>H. amplexicaulis</i> (J.B.Armstr.) Cockayne et Allan f. <i>amplexicaulis</i>	Plantaginaceae
<i>H. amplexicaulis</i> f. <i>hirta</i> Garn.-Jones et Molloy	Plantaginaceae
<i>H. arganthera</i> Garn.-Jones, Bayly, W.G.Lee et Rance	Plantaginaceae
‡ <i>H. benthamii</i> (Hook.f.) Cockayne et Allan	Plantaginaceae
‡ <i>H. biggarii</i> Cockayne	Plantaginaceae
<i>H. brevifolia</i> (Cheeseman) de Lange CD, ST, OL	Plantaginaceae
<i>H. calcicola</i> Bayly et Garn.-Jones	Plantaginaceae
‡ <i>H. carnosula</i> (Hook.f.) Cockayne	Plantaginaceae
‡ <i>H. chathamica</i> (Buchanan) Cockayne et Allan IE	Plantaginaceae
<i>H. dieffenbachii</i> (Benth.) Cockayne et Allan IE	Plantaginaceae
<i>H. elliptica</i> var. <i>crassifolia</i> Cockayne et Allan	Plantaginaceae
‡ <i>H. evenosa</i> (Petrie) Cockayne et Allan	Plantaginaceae
<i>H. gibbsii</i> (Kirk) Cockayne et Allan DP	Plantaginaceae
‡ <i>H. imbricata</i> Cockayne et Allan	Plantaginaceae
<i>H. insularis</i> (Cheeseman) Cockayne et Allan IE	Plantaginaceae
‡ <i>H. macrocalyx</i> (J.B.Armstr.) G.Simpson var. <i>macrocalyx</i>	Plantaginaceae
‡ <i>H. obtusata</i> (Cheeseman) Cockayne et Allan	Plantaginaceae
<i>H. ochracea</i> M.B.Ashwin	Plantaginaceae
<i>H. pareora</i> Garn.-Jones et Molloy	Plantaginaceae
‡ <i>H. pauciflora</i> G.Simpson et J.S.Thomson DP	Plantaginaceae
‡ <i>H. pubescens</i> subsp. <i>rehuarum</i> Bayly et de Lange IE	Plantaginaceae
<i>H. pubescens</i> subsp. <i>sejuncta</i> Bayly et de Lange	Plantaginaceae
<i>H. ramosissima</i> G.Simpson et J.S.Thomson	Plantaginaceae
‡ <i>H. rigidula</i> (Cheeseman) Cockayne et Allan var. <i>rigidula</i>	Plantaginaceae
‡ <i>H. rigidula</i> var. <i>sulcata</i> Bayly et Kellow DP	Plantaginaceae
‡ <i>H. stenophylla</i> var. <i>hesperia</i> Bayly et Garn.-Jones	Plantaginaceae
‡ <i>H. stenophylla</i> var. <i>oliveri</i> Bayly et Garn.-Jones OL, IE	Plantaginaceae
<i>H. townsonii</i> (Cheeseman) Cockayne et Allan	Plantaginaceae
‡ <i>H. tumida</i> (Kirk) Cockayne et Allan	Plantaginaceae
‡ <i>H. urvilleana</i> W.R.B.Oliv.	Plantaginaceae
<i>Helichrysum plumeum</i> Allan	Asteraceae
<i>H. selago</i> var. <i>tumidum</i> Cheeseman	Asteraceae
‡ <i>Hierochloe brunonis</i> Hook.f.	Poaceae
‡ <i>Hoheria equitum</i> Heads	Malvaceae
‡ <i>Homalanthus polyandrus</i> (Hook.f.) Cheeseman OL	Euphorbiaceae
‡ <i>Imperata cheesemanii</i> Hack. OL, IE	Poaceae
‡ <i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i> (L.) Ooststr. SO	Convolvulaceae
‡ <i>Isolepis crassiuscula</i> Hook.f. SO	Cyperaceae
‡ <i>Juncus scheuchzerioides</i> Gaudich. SO	Juncaceae
<i>Kirkianella novae-zelandiae</i> f. <i>glauca</i> Allan ST, HI	Asteraceae
‡ <i>Kunzea ericoides</i> var. <i>microflora</i> (G.Simpson) W.Harris	Myrtaceae
<i>K. sinclairii</i> (Kirk) W.Harris IE	Myrtaceae
<i>Lachnagrostis ammobia</i> Edgar DP	Poaceae
‡ <i>L. leptostachys</i> (Hook.f.) Zotov	Poaceae
‡ <i>L. pilosa</i> subsp. <i>nubifera</i> Edgar	Poaceae
‡ <i>L. tenuis</i> (Cheeseman) Edgar	Poaceae
<i>Leptecophylla robusta</i> (Hook.f.) Weiller IE	Ericaceae
<i>Leptinella albida</i> (D.G.Lloyd) D.G.Lloyd et C.Webb	Asteraceae
‡ <i>L. atrata</i> subsp. <i>luteola</i> (D.G.Lloyd) D.G.Lloyd et C.Webb	Asteraceae
<i>L. calcarea</i> (D.G.Lloyd) D.G.Lloyd et C.Webb	Asteraceae
<i>L. dispersa</i> subsp. <i>rupestris</i> (D.G.Lloyd) D.G.Lloyd et C.Webb RF	Asteraceae

‡ <i>L. lanata</i> Hook.f.	Asteraceae
‡ <i>L. minor</i> Hook.f.	Asteraceae
‡† <i>L. plumosa</i> Hook.f. SO	Asteraceae
‡ <i>L. potentillina</i> F.Muell.	Asteraceae
<i>L. pyrethrifolia</i> var. <i>linearifolia</i> (Cheeseman) D.G.Lloyd et C.Webb OL	Asteraceae
‡ <i>L. traillii</i> subsp. <i>puchella</i> (Kirk) D.G.Lloyd et C.Webb	Asteraceae
‡ <i>L. traillii</i> (Kirk) D.G.Lloyd et C.Webb subsp. <i>traillii</i>	Asteraceae
‡ <i>Leucogenes neglecta</i> Molloy	Asteraceae
† <i>Leucopogon parviflorus</i> (Andrews) Lindl. OL, SO	Ericaceae
<i>L. xerampelinus</i> de Lange, Heenan et M.I.Dawson CD, ST, OL	Ericaceae
‡ <i>Lignocarpa diversifolia</i> (Cheeseman) J.W.Dawson	Apiaceae
<i>Luzula crenulata</i> Buchanan	Juncaceae
‡ <i>L. traversii</i> var. <i>tenuis</i> Edgar DP	Juncaceae
<i>Macropiper excelsum</i> subsp. <i>peltatum</i> f. <i>delangei</i> R.O.Gardner RC, IE	Piperaceae
‡ <i>M. excelsum</i> subsp. <i>peltatum</i> R.O.Gardner f. <i>peltatum</i>	Piperaceae
‡† <i>M. excelsum</i> subsp. <i>psittacorum</i> (Endl.) Sykes SO, OL	Piperaceae
<i>M. melchior</i> Sykes IE	Piperaceae
‡ <i>Melicytus chathamicus</i> (F.Muell.) Garn.-Jones IE	Violaceae
<i>M. drucei</i> Molloy et B.D.Clarkson CD, RC, OL	Violaceae
‡ <i>M. obovatus</i> (Kirk) Garn.-Jones sens. str.	Violaceae
<i>Meryta sinclairii</i> (Hook.f.) Seem	Araliaceae
‡ <i>Metrosideros kermadecensis</i> W.R.B.Oliv. IE	Myrtaceae
‡ <i>Mitrasacme montana</i> var. <i>helmsii</i> Kirk	Loganiaceae
‡ <i>Myoporum kermadecense</i> Sykes IE	Myoporaceae
‡ <i>Myosotis antarctica</i> Hook.f. IE	Boraginaceae
‡ <i>M. arnoldii</i> L.B.Moore	Boraginaceae
<i>M. capitata</i> Hook.f. DP	Boraginaceae
‡ <i>M. concinna</i> Cheeseman	Boraginaceae
‡ <i>M. eximia</i> Petrie	Boraginaceae
‡ <i>M. explanata</i> Cheeseman DP	Boraginaceae
<i>M. laeta</i> Cheeseman OL	Boraginaceae
‡ <i>M. matthewsii</i> L.B.Moore DP, EF	Boraginaceae
‡ <i>M. monroi</i> Cheeseman OL	Boraginaceae
<i>M. oreophila</i> Petrie HI, EF	Boraginaceae
‡ <i>M. rakiura</i> L.B.Moore	Boraginaceae
<i>Myrsine coxii</i> Cockayne RF, IE	Myrsinaceae
‡ <i>M. kermadecensis</i> Cheeseman OL, IE	Myrsinaceae
<i>M. oliveri</i> Allan OL, IE	Myrsinaceae
‡ <i>Neopaxia racemosa</i> (Buchanan) Heenan OL	Portulacaceae
‡† <i>Nephrolepis hirsutula</i> (G.Forst.) C.Presl SO, OL	Nephrolepidaceae
<i>Olearia allomii</i> Kirk OL, IE	Asteraceae
<i>O. chathamica</i> Kirk IE	Asteraceae
‡ <i>O. crosby-smithiana</i> Petrie	Asteraceae
‡ <i>O. semidentata</i> Decne. IE	Asteraceae
<i>O. traversii</i> (F.Muell.) Hook.f. CD, RC, IE	Asteraceae
‡ <i>Oreopranthera alpina</i> (Cheeseman) Orchard	Euphorbiaceae
‡ <i>Ourisia confertifolia</i> Arroyo	Plantaginaceae
<i>O. goulandiana</i> Arroyo DP	Plantaginaceae
‡ <i>O. remotifolia</i> Arroyo	Plantaginaceae
<i>O. spatulata</i> Arroyo DP	Plantaginaceae
‡ <i>Pachycladon crenatus</i> Phillipson	Brassicaceae
‡ <i>P. wallii</i> (Carse) Heenan et A.Mitch.	Brassicaceae
<i>Pachystegia rufa</i> Molloy CD, ST	Asteraceae
<i>Parsonia praeruptis</i> Heads et de Lange CD, OL	Apocynaceae
‡† <i>Petalochilus alatus</i> (R.Br.) D.L.Jones et M.A.Clem. DP, TO	Orchidaceae
‡ <i>Pimelea crosby-smithiana</i> Petrie	Thymelaeaceae
‡ <i>P. microphylla</i> Colenso	Thymelaeaceae
‡ <i>P. suteri</i> Kirk	Thymelaeaceae
‡ <i>Pittosporum fairchildii</i> Cheeseman IE	Pittosporaceae
<i>P. pimeleoides</i> subsp. <i>maius</i> (Cheeseman) R.C.Cooper CD, ST, OL	Pittosporaceae
‡ <i>Plantago aucklandica</i> Hook.f. IE	Plantaginaceae

<i>P. spathulata</i> subsp. <i>picta</i> (Colenso) Sykes	Plantaginaceae
‡ <i>P. triantha</i> Spreng. IE	Plantaginaceae
‡ <i>Pleurophyllum criniferum</i> Hook.f.	Asteraceae
‡† <i>P. hookeri</i> Buchanan	Asteraceae
‡ <i>P. speciosum</i> Hook.f.	Asteraceae
‡ <i>Poa acicularifolia</i> Buchanan subsp. <i>acicularifolia</i>	Poaceae
‡ <i>P. acicularifolia</i> subsp. <i>ophitalis</i> Edgar	Poaceae
‡ <i>P. anceps</i> subsp. <i>polyphylla</i> (Hack.) Edgar	Poaceae
‡ <i>P. antipoda</i> Petrie	Poaceae
‡ <i>P. aucklandica</i> Petrie subsp. <i>aucklandica</i> IE	Poaceae
‡ <i>P. aucklandica</i> subsp. <i>campbellensis</i> (Petrie) Edgar IE	Poaceae
<i>P. aucklandica</i> subsp. <i>rakiura</i> Edgar DP, OL, IE	Poaceae
‡ <i>P. chathamica</i> Petrie IE	Poaceae
‡† <i>P. foliosa</i> (Hook.f.) Hook.f.	Poaceae
<i>P. pygmaea</i> Buchanan	Poaceae
‡ <i>P. ramosissima</i> Hook.f.	Poaceae
<i>P. senex</i> Edgar	Poaceae
‡ <i>P. tennantiana</i> Petrie	Poaceae
<i>P. xenica</i> Edgar et Connor	Poaceae
<i>Pomaderris paniculosa</i> subsp. <i>novae-zelandiae</i> (L.B.Moore) N.G.Walsh	Rhamnaceae
‡ <i>P. rugosa</i> Cheeseman	Rhamnaceae
† <i>Poranthera microphylla</i> Brong. SO	Euphorbiaceae
‡ <i>Pseudopanax chathamicus</i> Kirk IE	Araliaceae
‡ <i>P. gilliesii</i> Kirk	Araliaceae
‡ <i>P. kermadecensis</i> (W.R.B.Oliv.) Phillipson RC, OL, IE	Araliaceae
‡ <i>Pterostylis silvicultrix</i> (F.Muell.) Molloy, D.L.Jones et M.A.Clem. IE	Orchidaceae
‡ <i>Puccinellia walkeri</i> subsp. <i>antipoda</i> (Petrie) Edgar OL, IE	Poaceae
‡ <i>P. walkeri</i> (Kirk) Allan subsp. <i>walkeri</i>	Poaceae
<i>Rachelia glaria</i> J.M.Ward et Breitw. DP	Asteraceae
‡ <i>Ranunculus brevis</i> Garn.-Jones	Ranunculaceae
<i>R. godleyanus</i> Hook.f. CD	Ranunculaceae
<i>R. grahamii</i> Petrie	Ranunculaceae
<i>R. haastii</i> subsp. <i>piliferus</i> F.J.F.Fisher	Ranunculaceae
‡ <i>R. kirkii</i> Petrie	Ranunculaceae
‡ <i>R. mirus</i> Garn.-Jones	Ranunculaceae
‡ <i>R. pinguis</i> Hook.f.	Ranunculaceae
<i>R. recens</i> var. <i>lacustris</i> G.Simpson	Ranunculaceae
<i>R. scrithalmis</i> Garn.-Jones	Ranunculaceae
<i>R. stylosus</i> H.D.Wilson et Garn.-Jones	Ranunculaceae
‡ <i>R. subscaposus</i> Hook.f. OL, IE	Ranunculaceae
<i>R. viridis</i> H.D.Wilson et Garn.-Jones DP, OL	Ranunculaceae
<i>Raoulia cinerea</i> Petrie	Asteraceae
‡ <i>R. goyenii</i> Kirk	Asteraceae
‡ <i>R. hectorii</i> var. <i>mollis</i> Buchanan	Asteraceae
‡ <i>R. petriensis</i> Kirk	Asteraceae
‡ <i>R. rubra</i> Buchanan	Asteraceae
‡ <i>Rhopalostylis cheesemanii</i> Becc. IE	Arecaceae
‡ <i>Rumex neglectus</i> Kirk HI	Polygonaceae
‡ <i>Rytidosperma nudum</i> (Hook.f.) Connor et Edgar DP	Poaceae
<i>R. petrosum</i> Connor et Edgar	Poaceae
‡† <i>Scaevola gracilis</i> Hook.f. OL, TO	Goodeniaceae
‡ <i>Schizeilema reniforme</i> (Hook.f.) Domin	Araliaceae
‡† <i>Schoenus fluitans</i> Hook.f. SO	Cyperaceae
‡ <i>Senecio glaucophyllus</i> subsp. <i>basinudus</i> Ornduff	Asteraceae
‡ <i>S. glaucophyllus</i> Cheeseman subsp. <i>glaucophyllus</i>	Asteraceae
<i>S. hawaii</i> Sykes ST	Asteraceae
<i>S. lautus</i> var. <i>esperensis</i> Sykes OL, EF	Asteraceae
‡ <i>S. radiolatus</i> subsp. <i>antipodus</i> (Kirk) C.Webb OL, EF, IE	Asteraceae
‡ <i>S. radiolatus</i> F.Muell. subsp. <i>radiolatus</i> EF, IE	Asteraceae
<i>S. repangae</i> subsp. <i>pokohinuensis</i> de Lange et B.G.Murray OL, EF, IE	Asteraceae
‡ <i>S. sterquilinus</i> Ornduff HI, EF	Asteraceae

<i>Simplicia buchananii</i> (Zotov) Zotov DP	Poaceae
‡ <i>Sophora longicarinata</i> G.Simpson et J.S.Thomson	Fabaceae
‡ <i>S. molloyi</i> Heenan et de Lange	Fabaceae
<i>Sporadanthus ferrugineus</i> de Lange, Heenan et B.D.Clarkson CD, ST, HI	Restionaceae
<i>S. traversii</i> (F.Muell.) F.Muell. CD, ST, IE	Restionaceae
† <i>Sprengelia incarnata</i> Sm.	Ericaceae
‡ <i>Stellaria decipiens</i> Hook.f. var. <i>decipiens</i>	Caryophyllaceae
<i>S. decipiens</i> var. <i>angustata</i> Kirk IE	Caryophyllaceae
<i>Stenostachys deceptorix</i> Connor DP	Poaceae
‡ <i>Stilbocarpa lyallii</i> J.B.Armstr. RC	Araliaceae
‡ <i>S. polaris</i> (Hombr. et Jacq.) Gray	Araliaceae
‡ <i>S. robusta</i> (Kirk) Cockayne OL, IE	Araliaceae
‡ <i>Streblus smithii</i> (Cheeseman) Corner IE	Moraceae
‡ <i>Trisetum serpentinum</i> Edgar et A.P.Druce	Poaceae
<i>Wahlenbergia akaroa</i> J.A.Petterson	Campanulaceae
‡ <i>W. albomarginata</i> subsp. <i>flexilis</i> (Petrie) J.A.Petterson	Campanulaceae
‡ <i>W. albomarginata</i> subsp. <i>olivina</i> J.A.Petterson	Campanulaceae
‡ <i>W. cartilaginea</i> Hook.f.	Campanulaceae
‡ <i>W. matthewsii</i> Cockayne DP	Campanulaceae
<i>W. pygmaea</i> subsp. <i>drucei</i> J.A.Petterson	Campanulaceae
<i>Xeronema callistemon</i> f. <i>bracteosa</i> (L.B.Moore) de Lange et E.K.Cameron OL, IE	Xeronemataceae
‡ <i>X. callistemon</i> W.R.B.Oliv. f. <i>callistemon</i> IE	Xeronemataceae

### Non-resident Native (26)

Taxa whose natural presence in New Zealand is either sporadic or temporary (1. Vagrant) or they have succeeded in recently ( $\leq 50$  years) establishing themselves beyond their point of introduction (2. Coloniser).

#### 1. Vagrant (16)

Taxa whose occurrences, though natural, are sporadic and typically transitory. Most (if not all) fail to establish themselves beyond their point of arrival because of reproductive failure or for specific ecological reasons. Listed here also are those vagrants which are currently known in the New Zealand Botanical Region only from historic herbarium specimens but which remain extant in their country of origin, and so retain the potential to re-establish themselves.

† <i>Adiantum formosum</i> R.Br. SO	Pteridaceae
† <i>Atriplex australasica</i> Moq. SO	Amaranthaceae
‡† <i>Chiloglottis trapeziformis</i> Fitz. EW, SO	Orchidaceae
† <i>Simpliglottis valida</i> (D.L.Jones) D.L.Szlachekto SO	Orchidaceae
† <i>Doodia aspera</i> A.Rich. EW, SO	Blechnaceae
‡† <i>Gratiola pubescens</i> Benth. SO	Plantaginaceae
† <i>Lepturus repens</i> var. <i>cinereus</i> (Burcham) Fosberg SO	Poaceae
† <i>Mazus pumilio</i> R.Br. SO	Phrymaceae
† <i>Muellerina celastroides</i> (Schult.f. et J.H.Schult.bis) Tiegh. SO	Loranthaceae
† <i>Paracaleana minor</i> (R.Br.) Blaxell SO	Orchidaceae
† <i>Peperomia blanda</i> (Jacq.) Humb., Bonpl. et Kunth SO	Piperaceae
† <i>Picris angustifolia</i> DC. subsp. <i>angustifolia</i> SO	Asteraceae
† <i>Pterostylis nutans</i> R.Br. SO	Orchidaceae
‡† <i>Senecio australis</i> (Forst.f.) Willd. SO	Asteraceae
† <i>Sticherus tener</i> (R.Br.) Ching SO	Gleicheniaceae
† <i>Wilsonia backhousei</i> Hook.f. SO	Convolvulaceae

#### 2. Coloniser (10)

Taxa which have arrived without direct or indirect human assistance and which have been successfully reproducing in the wild for  $< 50$  years.

‡† <i>Achyranthes aspera</i> L. sens. lat. DP, SO,	Amaranthaceae
† <i>Atriplex cinerea</i> Poir. SO	Amaranthaceae
† <i>Cryptostylis subulata</i> (Labill.) Rchb.f. SO	Orchidaceae
† <i>Diplodium alveatum</i> (Garnet) D.L.Jones et M.A.Clem. SO	Orchidaceae
† <i>Epilobium gunnianum</i> Hausskn. SO	Onagraceae
† <i>Gratiola pedunculata</i> R.Br. SO	Plantaginaceae
† <i>Plectranthus parviflorus</i> Willd. SO	Lamiaceae
‡† <i>Scirpus polystachyus</i> F.Muell. SO	Cyperaceae
† <i>Thelymitra malvina</i> M.A.Clem., D.L.Jones et Molloy SO	Orchidaceae
† <i>T. matthewsii</i> Cheeseman TO	Orchidaceae

**Data Deficient (45)**

Taxa that are suspected but not definitely known to belong to any of the above categories due to a lack of current information about their present-day distribution and abundance. It is hoped that listing such taxa will stimulate research to find out the true category or threat. For a fuller definition see Molloy et al. (2002).

‡ <i>Cardamine bilobata</i> Kirk	Brassicaceae
<i>Carex allanii</i> Hamlin DP	Cyperaceae
<i>C. carsei</i> Petrie	Cyperaceae
‡ <i>C. druceana</i> Hamlin	Cyperaceae
‡ <i>C. raoulii</i> Boott	Cyperaceae
‡ <i>Centipeda aotearoana</i> N.G.Walsh	Asteraceae
† <i>Chenopodium detestans</i> Kirk TO	Amaranthaceae
<i>C. pusillum</i> Hook.f.	Amaranthaceae
‡ <i>Colobanthus brevisepalus</i> Kirk	Caryophyllaceae
<i>Crassula mataikona</i> A.P.Druce	Crassulaceae
<i>Deschampsia pusilla</i> Petrie	Poaceae
‡ <i>Elymus tenuis</i> (Buchanan) Á.Löve et Connor	Poaceae
† <i>Epilobium hirtigerum</i> A.Cunn. DP, SO, HI	Onagraceae
‡ <i>E. pictum</i> Petrie	Onagraceae
‡ <i>E. vernicosum</i> Cheeseman	Onagraceae
‡ <i>Euchiton polylepis</i> (D.G.Drury) Breitw. et J.M.Ward	Asteraceae
‡ <i>Euphrasia integrifolia</i> Petrie	Orobanchaceae
‡ <i>Geranium microphyllum</i> Hook.f. sens. str.	Geraniaceae
‡ <i>Geum albiflorum</i> (Hook.f.) Cheeseman IE	Rosaceae
† <i>Grammitis gunnii</i> Parris DP, SO	Grammitidaceae
<i>Gunnera densiflora</i> Hook.f.	Gunneraceae
<i>Hebe matthewsii</i> (Cheeseman) Cockayne	Plantaginaceae
<i>Koeleria riguorum</i> Edgar et Gibb	Poaceae
‡ <i>Lachnagrostis uda</i> Edgar	Poaceae
‡† <i>Lagenifera montana</i> Hook.f. DP	Asteraceae
‡† <i>Lepidium desvauxii</i> Thell. SO	Brassicaceae
† <i>Lepilaena bilocularis</i> Kirk SO	Potamogetonaceae
‡ <i>Libertia cranwelliae</i> Blanchon, B.G.Murray et Braggins	Iridaceae
<i>Myosotis glabrescens</i> L.B.Moore	Boraginaceae
<i>M. laingii</i> Cheeseman	Boraginaceae
<i>M. petiolata</i> var. <i>pottsiana</i> L.B.Moore	Boraginaceae
‡ <i>M. suavis</i> Petrie	Boraginaceae
‡ <i>M. uniflora</i> Hook.f.	Boraginaceae
<i>Nematoceras rivularis</i> Hook.f. sens. str.	Orchidaceae
‡ <i>Neopaxia lineariifolia</i> Heenan	Portulacaceae
‡ <i>Olearia angulata</i> Kirk	Asteraceae
‡ <i>Pachystegia minor</i> (Cheeseman) Molloy	Asteraceae
† <i>Polygonum plebeium</i> R.Br. SO	Polygonaceae
‡ <i>Pterostylis auriculata</i> Colenso	Orchidaceae
<i>P. irwinii</i> D.L.Jones, Molloy et M.A.Clem.	Orchidaceae
<i>P. porrecta</i> D.L.Jones, Molloy et M.A.Clem.	Orchidaceae
‡ <i>Schizeilema allanii</i> Cheeseman	Araliaceae
‡ <i>Stenostachys laevis</i> (Petrie) Connor	Poaceae
‡ <i>Vittadinia australis</i> Hook.f.	Asteraceae
<i>Zotovia acicularis</i> Edgar et Connor	Poaceae



**Appendix 2** Taxonomically indeterminate listings

This appendix includes described taxa whose taxonomic status is uncertain and requires further investigation, and also potentially distinct plants whose taxonomic status has yet to be determined. In both instances, available information suggests that those plants listed could be under some level of threat. Definitions of categories follow those given in Appendix 1.

† denotes indigenous taxa found naturally outside New Zealand.

‡ denotes an addition to this list (cf. de Lange et al. 1999).

**Qualifiers**

EW Extinct in the Wild  
 CD Conservation Dependent  
 DP Data Poor  
 RC Recovering  
 ST Stable  
 SO Secure Overseas  
 TO Threatened Overseas  
 HI Human Induced  
 RF Recruitment Failure  
 EF Extreme Fluctuations  
 OL One Location  
 PD Partial Decline  
 IE Island Endemic

**Extinct (2)**

*Myosotis traversii* var. *cinerascens* (Petrie) L.B.Moore (WELT 2585) DP  
*Pseudognaphalium* (a) (CHR 365358; Zoo) DP

Boraginaceae  
 Asteraceae

**Acutely Threatened (54)****1. Nationally Critical (38)**

† <i>Botrychium</i> aff. <i>lunaria</i> (CHR 289336; NW Nelson) TO	Ophioglossaceae
<i>Calochilus</i> aff. <i>herbaceus</i> (CHR 65825; Kaimaumu) SO, EF	Orchidaceae
‡ <i>Cardamine</i> (a) (CHR 500569; Awahokomo) CD, EF, OL	Brassicaceae
<i>C.</i> (c) (CHR 65058; Reporoa Bog) DP	Brassicaceae
<i>Celmisia</i> aff. <i>gracilentia</i> (b) (CHR 469722; Mangaweka) CD, OL	Asteraceae
<i>Craspedia</i> (a) (CHR 511522; Clutha River) HI, OL	Asteraceae
<i>C.</i> (b) (CHR 516324; Leatham) CD, OL	Asteraceae
<i>C.</i> (i) (CHR 395643; Fyfe River) OL	Asteraceae
<i>C.</i> (j) (CHR 516302; Lake Heron) HI, OL	Asteraceae
<i>Euphrasia</i> (a) (CHR 471903; “white”) EF, OL	Orobanchaceae
‡ <i>Festuca</i> aff. <i>novae-zelandiae</i> (AK 252541; Awahokomo) CD, EF, OL	Poaceae
<i>Gentiana</i> aff. <i>astonii</i> (a) (CHR 529112; Mt Brown)	Gentianaceae
<i>G.</i> aff. <i>astonii</i> (b) (CHR 529111; Pareora River) OL	Gentianaceae
‡ <i>G.</i> aff. <i>astonii</i> (c) (CHR 542276; Manahune) OL	Gentianaceae
‡ <i>G.</i> aff. <i>saxosa</i> (AK 7316; Charleston) OL	Gentianaceae
<i>Hebe</i> aff. <i>bishopiana</i> (AK 202263; Hikurangi Swamp) CD, HI, OL	Plantaginaceae
‡ <i>Hypsela</i> aff. <i>rivalis</i> (CHR 369981; Burgoo Stream) EF, OL	Lobeliaceae
<i>Isoetes</i> aff. <i>kirkii</i> (CHR 247118A; Lake Omapere) OL	Isoetaceae
‡ <i>Koeleria</i> aff. <i>novozelandica</i> (AK 252546; Awahokomo) CD, OL	Poaceae
<i>Lepidium</i> aff. <i>oleraceum</i> (a) (AK 230459; Chatham Islands) CD, OL	Brassicaceae
‡ <i>L.</i> aff. <i>oleraceum</i> (d) (AK 255607; Mangere) EF, OL	Brassicaceae
<i>Leptinella</i> (a) (CHR 515297; Clutha River)	Asteraceae
<i>Limosella</i> (b) (CHR 515038; Manutahi) ST	Plantaginaceae
<i>Linum monogynum</i> var. <i>chathamicum</i> Cockayne (CHR 417633) CD, EF	Linaceae
‡ <i>Melicytus</i> aff. <i>obovatus</i> (b) (AK 235617; Mt Burnett) CD, OL	Violaceae
‡ <i>Microtis</i> aff. <i>unifolia</i> (CHR 532775; Fox) DP, OL	Orchidaceae
<i>Myosotis</i> (b) (CHR 386966; Mt Tapuae-O-Uenuku) OL	Boraginaceae
<i>Olearia</i> aff. <i>odorata</i> (CHR 386084; Canterbury Plains) RF	Asteraceae
<i>Pachycladon</i> aff. <i>fastigiata</i> (CHR 279206; Chalk Range)	Brassicaceae
<i>Pimelea</i> (a) (CHR 495025; Turakina) CD, HI	Thymelaeaceae
<i>P.</i> aff. <i>aridula</i> (a) (CHR 282959; Te Mata Peak) OL	Thymelaeaceae

<i>Pratia</i> aff. <i>angulata</i> (AK 212143; Woodhill)	Lobeliaceae
<i>Ranunculus</i> (a) (AKU 19876; Hope)	Ranunculaceae
<i>R.</i> aff. <i>royi</i> (CHR 513327; Waihao) HI, OL	Ranunculaceae
<i>Thelymitra</i> (a) (WELT 79140; Ahipara) CD, DP, HI, EF	Orchidaceae
<i>Tmesipteris</i> aff. <i>tannensis</i> (CHR 496779; Banks Peninsula) DP	Psilotaceae
‡ <i>Trichomanes</i> (AK 252983; Kerikeri) DP, OL	Hymenophyllaceae
‡ <i>Trisetum</i> aff. <i>lepidum</i> (AK 251835; Awahokomo) CD, EF, OL	Poaceae

## 2. Nationally Endangered (14)

<i>Brachyscome</i> (a) (WELT 10278; Ward)	Asteraceae
<i>Cardamine</i> (b) (CHR 312947; "tarn") DP, EF	Brassicaceae
<i>C.</i> (d) (CHR 511706; Pisa Range) DP	Brassicaceae
‡ <i>Craspedia</i> (e) (CHR 514391; "tarn") CD, OL	Asteraceae
‡ <i>Gingidia</i> aff. <i>montana</i> (a) (CHR 510570; Mt Burnett) HI	Apiaceae
‡ <i>Hebe</i> aff. <i>albicans</i> (AK 252966; Mt Burnett) OL	Plantaginaceae
<i>Hibiscus</i> aff. <i>trionum</i> (AK 218967; North Island)	Malvaceae
<i>Lepidium</i> aff. <i>oleraceum</i> (b) (AK 208579; Antipodes) CD, DP, EF	Brassicaceae
<i>L.</i> aff. <i>oleraceum</i> (c) (CANU 5995; Snares) DP	Brassicaceae
<i>Melicytus</i> (a) (CHR 355077; Matiri Range)	Violaceae
<i>Myosotis</i> aff. <i>pygmaea</i> (CHR 244566; Volcanic Plateau) CD	Boraginaceae
<i>Pimelea</i> aff. <i>aridula</i> (b) (AK 230900; Cook Strait) OL	Thymelaeaceae
<i>Ranunculus</i> aff. <i>stylosus</i> (CHR 515131; Manuhune) HI, OL	Ranunculaceae
<i>Rhopalostylis</i> aff. <i>sapida</i> (AK 227148; Chatham Islands) CD, IE	Arecaceae

## 3. Nationally Vulnerable (2)

‡ <i>Kunzea</i> aff. <i>ericoides</i> (a) (AK 255350; Thornton) CD, RC, OL	Myrtaceae
<i>Prasophyllum</i> aff. <i>patens</i> (AK 236408; New Zealand) CD, DP	Orchidaceae

## Chronically Threatened (12)

### 1. Serious Decline (4)

‡ <i>Hypericum</i> aff. <i>japonicum</i> (a) (CHR 165889; Volcanic Plateau) DP	Clusiaceae
<i>Pimelea</i> aff. <i>arenaria</i> (AK 216133; southern New Zealand) DP, RF	Thymelaeaceae
<i>Pittosporum</i> aff. <i>crassifolium</i> (AK 253259; Raoul Island) RF, OL, IE	Pittosporaceae
<i>Sicyos</i> aff. <i>australis</i> (AK 252822; New Zealand)	Cucurbitaceae

### 2. Gradual Decline (8)

† <i>Christella</i> aff. <i>dentata</i> (b) (AK 126902; "thermal") HI	Thelypteridaceae
‡ <i>Craspedia</i> (n) (CHR 369978; Henderson) OL	Asteraceae
‡ <i>Eryngium</i> aff. <i>vesiculosum</i> (AK 232583; New Zealand)	Apiaceae
‡ <i>Hoheria</i> aff. <i>sexstylosa</i> (AK 234306; Tararua Ranges) HI	Malvaceae
<i>Leptinella dioica</i> subsp. <i>monoica</i> (AK 200874)	Asteraceae
‡ <i>Melicytus</i> aff. <i>alpinus</i> (f) (CHR 541566; Waipapa)	Violaceae
‡ <i>Ranunculus</i> (b) (CHR 324466; Burgoo Stream)	Ranunculaceae
‡ <i>Raoulia</i> aff. <i>hookeri</i> (AK 239529; "coast")	Asteraceae

## At Risk (89)

### 1. Sparse (14)

<i>Coriaria</i> (a) (CHR 469745; Rimutaka)	Coriariaceae
‡ <i>Dianella</i> aff. <i>nigra</i> (b) (AK 252911; Kopouatai) DP	Asparagaceae
‡ <i>Hebe</i> aff. <i>diosmifolia</i> (AK 215221; "summer flowering tetraploid")	Plantaginaceae
‡ <i>Hymenophyllum</i> aff. <i>flexuosum</i> (AK 177370; Mount Burnett)	Hymenophyllaceae
‡ <i>Hypericum</i> aff. <i>japonicum</i> (b) (CHR 140620; "tarn") DP	Clusiaceae
‡ <i>Libertia</i> aff. <i>peregrinans</i> (AK 14642; "nonoploid")	Iridaceae
‡ <i>Myosotis spatulata</i> var. <i>radicata</i> L.B.Moore (CHR 87680)	Boraginaceae
‡ <i>M.</i> aff. <i>australis</i> (AK 231051; "small white") DP	Boraginaceae
<i>Myrsine</i> aff. <i>divaricata</i> (AK 228797; Poor Knights)	Myrsinaceae
<i>Oreomyrrhis</i> (CHR 364086; "minute flower")	Apiaceae
<i>Oxalis</i> aff. <i>rubens</i> (AK 234308; "scree")	Oxalidiaceae
<i>Peperomia</i> aff. <i>urvilleana</i> (AK 206056; "purple vein") DP	Piperaceae
‡ <i>Raoulia</i> (c) (CHR 401140; "M")	Asteraceae
‡ <i>Thelymitra</i> aff. <i>ixioides</i> (AK 251348; New Zealand) DP, SO, EF	Orchidaceae

## 2. Range Restricted (75)

‡ <i>Ascarina lucida</i> var. <i>lanceolata</i> (Hook.f.) Allan (AK 233919)	Chloranthaceae
‡ <i>Astelia</i> aff. <i>nervosa</i> (a) (AK 108205; Mount Stokes) DP, OL	Asteliaceae
‡ <i>A.</i> aff. <i>nervosa</i> (b) (CHR 355412; Stewart Island)	Asteliaceae
‡ <i>A.</i> aff. <i>graminea</i> (CHR 129122; Red Hills) OL	Asteliaceae
<i>Brachyscome</i> aff. <i>humilis</i> (AK 231703; West Dome) DP, OL	Asteraceae
‡ <i>Cardamine</i> (e) (AK 231673; West Dome) DP, OL	Brassicaceae
‡ <i>Carex</i> (a) (CHR 395744; Takaka)	Cyperaceae
‡ <i>C.</i> (b) (AK 232856; Matiri)	Cyperaceae
‡ <i>Celmisia</i> aff. <i>major</i> (AK 255352; Pupu)	Asteraceae
‡ <i>Chionochloa</i> (a) (OTA 18879; Mt Burns) DP	Poaceae
‡ <i>Colobanthus</i> (b) (AK 232645; “Red Hills”)	Caryophyllaceae
‡ <i>C.</i> aff. <i>wallii</i> (AK 232551; “serpentine”)	Caryophyllaceae
‡ <i>Coprosma</i> aff. <i>acerosa</i> (AK 36799; Taranaki)	Rubiaceae
‡ <i>C.</i> aff. <i>neglecta</i> (AK 250769; Whangaroa)	Rubiaceae
<i>Craspedia</i> aff. <i>minor</i> (AK 228074; Chatham Island) IE	Asteraceae
<i>C.</i> (c) (CHR 529115; Kaitorete) CD, HI, OL	Asteraceae
<i>C.</i> (d) (CHR 245893; Otakeho) DP	Asteraceae
<i>C.</i> (f) (CHR 514362; Hackett) OL	Asteraceae
<i>C.</i> (g) (CHR 469764; Pikikiruna) OL	Asteraceae
<i>C.</i> (h) (CHR 260312; Goulard Downs) DP	Asteraceae
‡ <i>C.</i> (k) (CHR 283173; “coast”)	Asteraceae
‡ <i>C.</i> (l) (CHR 479212; Charleston) DP, OL	Asteraceae
‡ <i>C.</i> (o) (CHR 471883; Loveridge) DP, OL	Asteraceae
‡ <i>C.</i> (p) (CHR 469073; Havelock River) OL	Asteraceae
‡ <i>C.</i> (q) (AK 251905; Anglem) DP, OL	Asteraceae
‡ <i>C.</i> (r) (CHR 313349; Punakaiki) DP, OL	Asteraceae
‡ <i>C.</i> (s) (CHR 401645; “serpentine”)	Asteraceae
‡ <i>C.</i> (t) (CHR 365392; Chalk)	Asteraceae
‡ <i>Deyeuxia</i> aff. <i>quadriseta</i> (AK 252511; Volcanic Plateau)	Poaceae
‡ <i>Dianella</i> aff. <i>nigra</i> (a) (AK 256873; Hauturu)	Asparagaceae
‡ <i>Epilobium</i> aff. <i>glabellum</i> (CHR 387893; “pink”) DP	Onagraceae
‡ <i>Gentiana</i> (a) (CHR 395723; Lookout Range)	Gentianaceae
<i>G.</i> aff. <i>astonii</i> (c) (CHR 519113; Awahokomo) EF, OL	Gentianaceae
<i>G.</i> aff. <i>astonii</i> (d) (CHR 529114; Ward) ST	Gentianaceae
‡ <i>G.</i> aff. <i>astonii</i> (f) (CHR 279272; Chalk Range)	Gentianaceae
‡ <i>G.</i> aff. <i>tenuifolia</i> (CHR 387194; “stellar”)	Gentianaceae
<i>Geranium</i> (a) (CHR 518296; Pareora River) OL	Geraniaceae
<i>G.</i> (b) (CHR 469918; Red Hills) ST, OL	Geraniaceae
‡ <i>Gingidia</i> aff. <i>montana</i> (b) (CHR 103349; North Otago) DP	Apiaceae
<i>Hebe</i> aff. <i>ligustrifolia</i> (AK 207101; Surville Cliffs)	Plantaginaceae
‡ <i>H.</i> aff. <i>pinguifolia</i> (CHR 461354; “high flyer”) DP	Plantaginaceae
<i>H.</i> sp. ( <i>Veronica salicifolia</i> var. <i>angustissima</i> Cockayne) (AK 233637)	Plantaginaceae
<i>Helichrysum</i> aff. <i>aggregatum</i> (AK 54473; Surville Cliffs) CD, ST, OL	Asteraceae
‡ <i>H.</i> aff. <i>intermedium</i> (CHR 274826; Chalk Range)	Asteraceae
‡ <i>Lastreopsis</i> aff. <i>glabella</i> (AK 242151; Kermadecs) OL, IE	Dryopteridaceae
‡ <i>Melicytus</i> aff. <i>alpinus</i> (g) (CHR 541569; Blondin)	Violaceae
‡ <i>M.</i> aff. <i>crassifolius</i> (CHR 279358; “cliff”)	Violaceae
‡ <i>M.</i> aff. <i>novae-zelandiae</i> (CHR 89907; “maritime”) ST	Violaceae
‡ <i>M.</i> <i>ramiflorus</i> subsp. (a) (AK 207155; Three Kings) DP	Violaceae
‡ <i>M.</i> <i>ramiflorus</i> subsp.(b) (AK 234207; Raoul) OL, IE	Violaceae
‡ <i>Myosotis</i> aff. <i>brockiei</i> (CHR 497375; Lake Otuhie) OL	Boraginaceae
<i>M.</i> (a) (CHR 320240; Mossburn)	Boraginaceae
† <i>Nephrolepis</i> (a) (AK 232904; “thermal”) TO	Nephrolepidaceae
<i>Notothlaspi</i> (a) (CHR 363071; Red Hills) OL	Brassicaceae
‡ <i>Ourisia</i> aff. <i>caespitosa</i> (CHR 395703; Hope Range)	Plantaginaceae
<i>Parahebe</i> aff. <i>catarractae</i> (CHR 324810; “hairy”) DP	Plantaginaceae
<i>Phyllocladus</i> aff. <i>trichomanoides</i> (AK 138493; Surville Cliffs) CD, ST, OL	Phyllocladaceae
<i>Phormium</i> aff. <i>tenax</i> (CHR 536735; Chatham Islands) IE	Asparagaceae

‡ <i>Pimelea</i> (b) (AK 165780; Mt Manaia) ST	Thymelaeaceae
‡ <i>P.</i> (c) (CHR 511713; "tarn") DP	Thymelaeaceae
‡ <i>P.</i> (d) (CHR 472016; Pisa)	Thymelaeaceae
<i>P.</i> aff. <i>aridula</i> (c) (CHR 402249; Moawhango) ST, OL	Thymelaeaceae
<i>P.</i> aff. <i>aridula</i> (d) (CHR 221089; Maungaharuru) OL	Thymelaeaceae
<i>Pimelea</i> aff. <i>sericeovillosa</i> (CHR 467766; Cobb)	Thymelaeaceae
‡ <i>P.</i> aff. <i>tomentosa</i> (b) (AK 130893; Surville Cliffs) CD, ST, OL	Thymelaeaceae
‡ <i>P.</i> aff. <i>tomentosa</i> (c) (AK 228145; Three Kings) IE	Thymelaeaceae
‡ <i>Pseudopanax</i> aff. <i>lessonii</i> (AK 46066, Surville Cliffs)	Araliaceae
‡ <i>Pteris</i> aff. <i>macilenta</i> (AK 210045; Punakaiki) DP	Pteridaceae
‡ <i>Raoulia</i> aff. <i>bryoides</i> (AK 323119; "L") DP, ST, OL	Asteraceae
‡ <i>Rubus</i> aff. <i>schmidelioides</i> (CHR 325720; "strawberry")	Rosaceae
‡ <i>Schizeilema</i> (a) (CHR 190698; Ruahine)	Araliaceae
‡ <i>Stellaria</i> aff. <i>parviflora</i> (AK 169580; Poor Knights)	Caryophyllaceae
‡ <i>Thelymitra</i> (b) (CHR 518036; "darkie") EF	Orchidaceae
‡ <i>T.</i> (c) (CHR 518036; "rough leaf") EF	Orchidaceae
‡‡ <i>Wahlenbergia congesta</i> subsp. <i>haastii</i> J.A.Petterson (CHR 201850)	Campanulaceae

### Data Deficient (51)

‡ <i>Agrostis</i> (a) (CHR 402485; Dunstan Range) OL	Poaceae
‡ <i>Brachyglottis cockaynei</i> (G.Simpson et J.S.Thomson) B.Nord. (AK 253995)	Asteraceae
‡ <i>B.</i> <i>rotundifolia</i> var. <i>ambigua</i> (Cheeseman) B.Nord. (AK 251870) OL	Asteraceae
‡ <i>Cardamine</i> aff. <i>bilobata</i> (CHR 511915; eastern South Island)	Brassicaceae
<i>Carex kirkii</i> var. <i>elatior</i> Kük. (CHR 73151) OL	Cyperaceae
‡ <i>Celmisia cordatifolia</i> var. <i>brockettii</i> Martin (WELT 4496)	Asteraceae
<i>C. cordatifolia</i> var. <i>similis</i> Martin (CHR 365726)	Asteraceae
<i>C.</i> aff. <i>discolor</i> (CHR 197967; Fiordland)	Asteraceae
<i>C.</i> aff. <i>gracilentata</i> (a) (CHR 282958; Te Mata Peak) OL	Asteraceae
<i>Corallospartium crassicaule</i> var. <i>racemosum</i> Kirk (CHR 141532)	Fabaceae
‡ <i>Dracophyllum</i> ( <i>Venter 13745</i> ; Mt Rochfort) DP	Ericaceae
‡ <i>Elymus</i> aff. <i>solandri</i> (a) (AK 222754; "channel")	Poaceae
‡ <i>E.</i> aff. <i>solandri</i> (b) (CHR 1613; South Marlborough)	Poaceae
‡ <i>Galium</i> aff. <i>perpusillum</i> (CHR 476063; Kaitorete)	Rubiaceae
‡ <i>Geranium</i> (c) (CHR 546319; Von) OL	Geraniaceae
‡ <i>Grammitis</i> aff. <i>rawlingsii</i> (a) (CHR 420132; Great Barrier)	Grammitidaceae
‡ <i>G.</i> aff. <i>rawlingsii</i> (b) (AK 236942; Mt Williams) OL	Grammitidaceae
<i>Hebe</i> aff. <i>brevifolia</i> (AK 235669; Surville Cliffs) CD, OL	Plantaginaceae
‡ <i>H.</i> aff. <i>treadwellii</i> (CHR 394533; Bald Knob Ridge) OL	Plantaginaceae
<i>Leptinella intermedia</i> (D.G.Lloyd) D.G.Lloyd et C. Webb (CANU 17225)	Asteraceae
‡ <i>Libertia</i> aff. <i>ixioides</i> (a) (CHR 469712; "large capsule")	Iridaceae
‡ <i>Libertia</i> aff. <i>ixioides</i> (b) (CHR 174779; Omaha)	Iridaceae
<i>Limosella</i> (a) (CHR 222625; Opunake)	Plantaginaceae
‡ <i>Meliccytus</i> aff. <i>alpinus</i> (a) (CHR 541565; Rangipo)	Violaceae
‡ <i>M.</i> aff. <i>alpinus</i> (b) (CHR 541568; Otago)	Violaceae
‡ <i>M.</i> aff. <i>alpinus</i> (c) (CHR 541567; "dark")	Violaceae
‡ <i>M.</i> aff. <i>alpinus</i> (d) (CHR 530143; "Brookie") OL	Violaceae
‡ <i>M.</i> aff. <i>alpinus</i> (e) (CHR 514919B; Livingstone)	Violaceae
‡ <i>M.</i> aff. <i>obovatus</i> (c) CHR 393733; Mt Owen) OL	Violaceae
‡ <i>Myosotis</i> aff. <i>pulvinaris</i> (CHR 431563; Umbrella)	Boraginaceae
‡ <i>M.</i> aff. <i>tenericaulis</i> (AK 7570; Garvie)	Boraginaceae
‡ <i>M.</i> (c) (CHR 198630; Fiordland)	Boraginaceae
‡ <i>Nematoceras</i> aff. <i>rivularis</i> (CHR 534752; "rest area")	Orchidaceae
‡ <i>N.</i> aff. <i>rivularis</i> (CHR 518313; "whiskers")	Orchidaceae
‡ <i>N.</i> aff. <i>rivularis</i> (CHR 518025; Kaimai)	Orchidaceae
‡ <i>N.</i> aff. <i>rivularis</i> (AK 251833; Kaitarakahi) OL	Orchidaceae
‡ <i>N.</i> aff. <i>trilobus</i> (CHR 518304; "pygmy")	Orchidaceae
‡ <i>N.</i> aff. <i>trilobus</i> (CHR 537604; Rimutaka )	Orchidaceae
‡ <i>N.</i> aff. <i>trilobus</i> (CHR 534742; Trotters )	Orchidaceae
‡ <i>Pachystegia</i> aff. <i>insignis</i> (CHR 565298; Lowry)	Asteraceae
‡ <i>Pimelea</i> aff. <i>prostrata</i> (CHR 257898; Kaitorete) OL	Thymelaeaceae
‡ <i>P.</i> (f) (AK 189577; Maunganui Bluff) OL	Thymelaeaceae

‡ <i>Poa</i> aff. <i>sublimis</i> (CHR 402510; Eyre Mountains) OL	Poaceae
‡ <i>Pratia</i> aff. <i>macrodon</i> (AK 255606; Old Man Range) OL	Lobeliaceae
‡ <i>Pterostylis</i> aff. <i>graminea</i> (CHR 513330; “sphagnum”)	Orchidaceae
‡ <i>Ranunculus</i> aff. <i>reflexus</i> (CHR 394270; Mt Peel)	Ranunculaceae
‡ <i>R.</i> (c) (CHR 472008; Garvie Range)	Ranunculaceae
<i>Rytidosperma tenue</i> (Petrie) Connor et Edgar (WELT 39920)	Poaceae
‡ <i>Raoulia</i> (a) (CHR 79537; “K”)	Asteraceae
<i>Spiranthes</i> aff. <i>novae-zelandiae</i> (CHR 518297; Motutangi) HI, EF	Orchidaceae
‡ <i>Thelymitra</i> aff. <i>longifolia</i> (CHR 537579; Whakapapa)	Orchidaceae

**Appendix 3.** Taxonomically Determinate (1) and Indeterminate (2) plants previously listed by de Lange et al. (1999) or Hitchmough (2002) but which, for the reasons specified are no longer considered to be threatened.

<sup>1</sup>Ecology and distribution better understood

<sup>2</sup>Adventive

<sup>3</sup>More abundant than previously believed

<sup>4</sup>Taxonomically indistinct

<sup>5</sup>Unsupported by herbarium evidence

### 1. Not Threatened (Taxonomically Determinate) (31)

<i>Brachyglottis traversii</i> (F.Muell.) B.Nord. <sup>1</sup>	Asteraceae
‡ <i>Carex kaloides</i> Petrie <sup>1,3</sup>	Cyperaceae
† <i>Crassula colorata</i> var. <i>acuminata</i> (Reader) Toelken <sup>2</sup>	Crassulaceae
<i>Festuca actae</i> Connor <sup>1,3</sup>	Poaceae
‡ <i>Galium trilobum</i> Colenso <sup>1,3</sup>	Rubiaceae
<i>Gentiana matthewsii</i> Petrie <sup>4</sup>	Gentianaceae
<i>Geum pusillum</i> Petrie <sup>1</sup>	Rosaceae
<i>Gingidia baxterae</i> (J.W.Dawson) C.Webb <sup>1,3</sup>	Apiaceae
<i>Hebe buchananii</i> (Hook.f.) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. colensoi</i> (Hook.f.) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. diosmifolia</i> (A.Cunn.) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. divaricata</i> (Cheeseman) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. haastii</i> (Hook.f.) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. imbricata</i> Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. laingii</i> (Cockayne) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. murrellii</i> G.Simpson et J.S.Thomson <sup>1,3</sup>	Plantaginaceae
<i>H. propinqua</i> (Cheeseman) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. rupicola</i> (Cheeseman) Cockayne et Allan <sup>1,3</sup>	Plantaginaceae
<i>H. strictissima</i> (Kirk) L.B.Moore <sup>1,3</sup>	Plantaginaceae
<i>Ileostylus micranthus</i> (Hook.f.) Tiegh. <sup>3</sup>	Loranthaceae
<i>Lachnagrostis elata</i> Edgar <sup>1,3</sup>	Poaceae
<i>L. littoralis</i> subsp. <i>salaria</i> Edgar <sup>1,3</sup>	Poaceae
<i>Libertia edgariae</i> Blanchon, Braggins et B.G.Murray <sup>1,3</sup>	Iridaceae
† <i>Limosella curdieana</i> F.Muell. <sup>2</sup>	Scrophulariaceae
<i>Olearia bullata</i> H.D.Wilson et Garn.-Jones <sup>1,3</sup>	Asteraceae
<i>Parahebe catarractae</i> subsp. <i>lanceolata</i> (Benth.) Garn.-Jones <sup>1,3</sup>	Plantaginaceae
<i>Polystichum silvaticum</i> (Colenso) Diels <sup>1,3</sup>	Dryopteridaceae
<i>Ranunculus berggrenii</i> Petrie <sup>4</sup>	Ranunculaceae
‡ <i>Raoulia parkii</i> Buchanan <sup>3</sup>	Asteraceae
<i>Trichomanes strictum</i> Menzies, Hook. et Grev. <sup>1,3</sup>	Hymenophyllaceae
<i>Veronica irrigans</i> Kirk <sup>4</sup>	Plantaginaceae

### 2. Not Threatened (Taxonomically Indeterminate) (18)

<i>Brachyscome</i> (b) (CHR 518295; Pareora River) <sup>4</sup>	Asteraceae
<i>Celmisia</i> aff. <i>sessiliflora</i> (CHR; Bald Knob Ridge) <sup>5</sup>	Asteraceae
<i>Colobanthus</i> (a) (CHR 515133; Pareora River) <sup>4</sup>	Caryophyllaceae
<i>Cortaderia</i> aff. <i>fulvida</i> (CHR 477325; Puketi) <sup>4</sup>	Poaceae
Cunoniaceae genus indeterminate (AK 230695; Te Urewera) <sup>4</sup>	Cunoniaceae
<i>Dracophyllum pearsonii</i> Kirk <sup>1,3</sup>	Ericaceae
<i>D.</i> aff. <i>traversii</i> (Venter 13827; “gabbro”) <sup>1,3</sup>	Ericaceae
<i>Gentiana</i> (b) (AK 232641; Red Hills) <sup>4</sup>	Gentianaceae

<i>Hebe pimeleoides</i> var. <i>glauco-caerulea</i> (J.B.Armstr.) Cockayne et Allan (CHR 462377) <sup>4</sup>	Plantaginaceae
<i>H.</i> aff. <i>epacridea</i> (CHR 470336; Mt Dobson) <sup>4</sup>	Plantaginaceae
<sup>‡</sup> <i>H.</i> aff. <i>macrocarpa</i> var. <i>latisejala</i> (AK 250801; Great Barrier Island) <sup>4</sup>	Plantaginaceae
<sup>‡</sup> <i>Hebe</i> aff. <i>pimeleoides</i> (CHR 173403; Mackenzie Basin) <sup>4</sup>	Plantaginaceae
<i>Hypoxis</i> aff. <i>hookeri</i> (CHR 486447; New Zealand) <sup>2</sup>	Hypoxidaceae
<i>Kunzea</i> aff. <i>ericoides</i> (AK; "sand") <sup>1,3</sup>	Myrtaceae
<i>Meliclytus</i> aff. <i>alpinus</i> (a) (AK 230926; Wairarapa) <sup>4</sup>	Violaceae
<i>Meliclytus</i> aff. <i>obovatus</i> (a) (AK 229988; Cook Strait) <sup>1,3</sup>	Violaceae
<i>Ourisia</i> aff. <i>macrocarpa</i> (CHR; Richmond Range) <sup>5</sup>	Plantaginaceae
<i>Polystichum</i> aff. <i>vestitum</i> (AK 230427–8; Chatham Islands) <sup>1,3,4</sup>	Dryopteridaceae

**Appendix 4** Nomenclature changes affecting taxa listed by de Lange et al. (1999) and Hitchmough (2002).

**Previous listings**

*Abrotanella patearoana* Heads  
*Ackama* (AK 253151; Waima Forest)  
*Astelia* aff. *nervosa* (a) (CHR; Mt Stokes)  
*Astelia* aff. *nervosa* (b) (CHR; Stewart Island)  
*A. graminea* (CHR; Red Hills)  
*Atriplex* aff. *billardierei* (AK 225956; North Island)  
*Caleana minor* R.Br.  
*Cardamine* (a) (CHR 312947; "tarn")  
*Cardamine* (c) (CHR 500569; Awahokomo)  
*Cardamine* (b) (CHR 511706; Pisa Range)  
*Cardamine* (d) (AK; West Dome)  
*Carex* (a) (CHR; Takaka)  
*Carex* (b) (CHR; Matiri)  
*Caladenia atradenia* D.L.Jones, Molloy et M.A.Clem.  
  
*Cheesemaniana enysii* (Cheeseman) O.E.Schulz  
*Cheesemaniana fastigiata* (Hook.f.) O.E.Schulz  
*Cheesemaniana stellata* (Allan) Heenan  
*Cheesemaniana* aff. *fastigiata* (CHR 279206; Chalk Range)  
  
*Chiloglottis formicifera* Fitz. *pro parte*\*  
*Chiloglottis valida* D.L.Jones  
*Chionochloa* aff. *macra* (CHR; Mt Burns)  
*Christella* aff. *dentata* (a) (CHR 472870; Kaitaia)  
*Colobanthus* (b) (CHR; Red Hills)  
*C.* aff. *wallii* (CHR; "serpentine")  
*Coprosma* aff. *acerosa* (CHR; Taranaki)  
*Coprosma* aff. *neglecta* (AK; Whangaroa)  
*Coprosma* aff. *obconica* (AK 36254; Surville Cliffs)  
  
*Coprosma* aff. *spathulata* (AK 229538; Surville Cliffs)  
  
*Corunastylis nudum* (Hook.f.) D.L.Jones et M.A.Clem  
*Corunastylis nudum* (Hook.f.) D.L.Jones et M.A.Clem  
*Corybas carsei* (Cheeseman) Hatch  
*Craspedia* (k) (CHR; "coast")  
*Craspedia* (l) (CHR; Charleston)  
*Craspedia* (o) (CHR; Loveridge)  
*Craspedia* (p) (CHR; Havelock)  
*Craspedia* (q) (CHR; Anglem)  
*Craspedia* (r) (CHR; Punakaiki)  
*Craspedia* s (CHR; "serpentine")  
*Craspedia* (t) (CHR; Chalk)  
*Dianella* aff. *nigra* (a) (CHR; Hauturu)  
*Dianella* aff. *nigra* (b) (CHR; Kopouatai)

**This paper**

*Abrotanella patearoa* Heads  
*Ackama nubicola* de Lange  
*Astelia* aff. *nervosa* (a) (AK 108205; Mount Stokes)  
*Astelia* aff. *nervosa* (b) (CHR 355412; Stewart Island)  
*Astelia* aff. *graminea* (CHR 129122; Red Hills)  
*Atriplex hollowayi* de Lange et D.A.Norton  
*Paracaleana minor* (R.Br.) Blaxell  
*Cardamine* (b) (CHR 312947; "tarn")  
*Cardamine* (a) (CHR 500569; Awahokomo)  
*Cardamine* (d) (CHR 511706; Pisa Range)  
*Cardamine* (e) (AK 231673; West Dome)  
*Carex* (a) (CHR 395744; Takaka)  
*Carex* (b) (AK 232856; Matiri)  
*Stegostyla atradenia* (D.L.Jones, Molloy et M.A.Clem.)  
D.L.Jones et M.A.Clem.  
*Pachycladon enysii* (Cheeseman) Heenan et A.Mitch.  
*Pachycladon fastigiata* (Hook.f.) O.E.Schulz  
*Pachycladon stellata* (Allan) Heenan et A.Mitch.  
*Pachycladon* aff. *fastigiata* (CHR 279206;  
Chalk Range)  
*Chiloglottis trapeziformis* Fitz.  
*Simpliglottis valida* (D.L.Jones) D.L.Szlachekto  
*Chionochloa* (a) (OTA 18879; Mt Burns)  
*Christella dentata* sens. str.  
*Colobanthus* (b) (AK 232645; "Red Hills")  
*Colobanthus* aff. *wallii* (AK 232551; "serpentine")  
*Coprosma* aff. *acerosa* (AK 36799; Taranaki)  
*Coprosma* aff. *neglecta* (AK 250769; Whangaroa)  
*Coprosma distantia* (de Lange et R.O.Gardner)  
de Lange  
*Coprosma spathulata* subsp. *hikuruana* de Lange  
et Heenan  
*Corunastylis nuda* (Hook.f.) D.L.Jones et M.A.Clem  
*Corunastylis pumila* (Hook.f.) D.L.Jones et M.A.Clem  
*Anzybas carsei* (Cheeseman) D.L.Jones et M.A.Clem.  
*Craspedia* (k) (CHR 283173; "coast")  
*Craspedia* (l) (CHR 479212; Charleston)  
*Craspedia* (o) (CHR 471883; Loveridge)  
*Craspedia* (p) (CHR 469073; Havelock River)  
*Craspedia* (g) (AK 251905; Anglem)  
*Craspedia* (r) (CHR 313349; Punakaiki)  
*Craspedia* (s) (CHR 401645; "serpentine")  
*Craspedia* (t) (CHR 365392; Chalk)  
*Dianella* aff. *nigra* (a) (AK 256873; Hauturu)  
*Dianella* aff. *nigra* (b) (AK 252911; Kopouatai)

- Epilobium* aff. *glabellum* (CHR; “pink”)  
*Eryngium vesiculosum* Labill
- Euchiton nitidulus* (Hook.f.) Anderb.  
*Gentianella bellidifolia* var. *magnifica* (Kirk)  
 Hitchmough *nom. nud.*  
*Gentianella* (a) (CHR; Lookout Range)  
*Geranium* (c) (CHR; Von)  
*Gingidia* aff. *montana* (a) (CHR; North Otago)  
*Hebe pimeleioides* var. *rupestris* Cockayne et Allan  
*Hebe* aff. *bollonsii* (AK 150628; Mokohinau Islands)  
*Hebe* aff. *diosmifolia* (AK 215221; “summer flowering”)  
*Hebe* aff. *macrocarpa* var. *latisepala* (AK 250801;  
 Great Barrier Island)  
*Hebe* aff. *pinguifolia* (CHR; “high flyer”)  
*Hebe* aff. *rigidula* (WAIK 5822; Awaroa Valley)  
*Hebe* aff. *rigidula* (CHR 192300; D’Urville Island)  
*H. sp.* (*Veronica salicifolia* var. *angustissima* Cockayne)
- Helichrysum* aff. *intermedium* (CHR; Chalk Range)
- Hoheria* aff. *sexstylosa* (CHR; Tararua Ranges)  
*Hypericum* aff. *japonicum* (b) (CHR; “tarn”)  
*Ischnocarpus exilis* Heenan  
*I. novae-zelandiae* (Hook.f.) O.E.Schulz  
*Leucopogon* aff. *parviflorus* (AK 130914; Surville Cliffs)
- Libertia* aff. *grandiflora* (CHR; Eastbourne)  
*Libertia* aff. *ixioides* (a) (CHR; East Cape)  
*Libertia* aff. *ixioides* (b) (CHR; Omaha)  
*Libertia* aff. *peregrinans* (CHR; “nonoploid”)  
*Myosotis* aff. *australis* (CHR; “small white”)  
*Myosotis* aff. *brockiei* (CHR; Lake Otuhie)  
*Olearia* (a) (AK 178700; Hauturu Range)  
*Oxalis* aff. *rubens* (CHR; “scree”)  
*Pachystegia* aff. *insignis* (CHR; Lowry)  
*Pimelea* (b) AK; Mt Manaia  
*Pimelea* (c) (CHR; “tarn”)  
*Pimelea* “Pisa” (CHR)  
*Pimelea* aff. *sericeovillosa* (CHR; Cobb)  
*Pimelea* aff. *tomentosa* (b) (CHR; Surville Cliffs)  
*Pimelea* aff. *tomentosa* (c) (CHR; Three Kings)  
*Pseudopanax* aff. *lessonii* (CHR; Surville Cliffs)  
*Pteris* aff. *macilentia* (CHR; “Punakaiki”)  
*Polystichum* aff. *vestitum* (AK 230427–8; Chatham Islands)  
*Pterostylis alveata* Garnet  
*Pterostylis banksii* var. *silvicultrix* F.Muell.
- Pterostylis puberula* Hook.f.
- Pterostylis tanypoda* D.L.Jones, Molloy et M.A.Clem.
- Pterostylis tasmanica* D.L.Jones  
*Pterostylis tristis* Colenso
- Pterostylis* aff. *montana* (CHR 534754; Catlins)  
*Ranunculus* (b) (CHR; Burgoo Stream)  
*Raoulia* (c) (CHR; “M”)  
*Rubus* aff. *schmidelioides* (AK; “strawberry”)  
*Stellaria* aff. *parviflora* (AK; Poor Knights)  
*Thelymitra* aff. *ixioides* (CHR; New Zealand)
- Epilobium* aff. *glabellum* (CHR 387893; “pink”)  
*Eryngium* aff. *vesiculosum* (AK 232583;  
 New Zealand)  
*Argyrotegium nitidulum* (Hook.f.) J.M.Ward et Breitw.  
*Gentiana bellidifolia* var. *magnifica* Kirk
- Gentiana* (a) (CHR 395723; Lookout Range)  
*Geranium* (c) (CHR 546319; Von)  
*Gingidia* aff. *montana* (b) (CHR 103349; North Otago)  
*Hebe pimeleioides* subsp. *faucicola* Kellow et Bayly  
*Hebe pubescens* subsp. *sejuncta* Bayly et de Lange  
*Hebe* aff. *diosmifolia* (AK 215221; “tetraploid”)  
*Hebe macrocarpa* (Vahl.) Cockayne et Allan var.  
*macrocarpa*  
*Hebe* aff. *pinguifolia* (CHR 461354; “high flyer”)  
*Hebe scopulorum* Bayly, de Lange et Garn.-Jones  
*Hebe rigidula* var. *sulcata* Bayly et Kellow  
*H. sp.* (*Veronica salicifolia* var. *angustissima* Cockayne)  
 (AK 233637)  
*Helichrysum* aff. *intermedium* (CHR 274826;  
 Chalk Range)  
*Hoheria* aff. *sexstylosa* (AK 234306; Tararua Ranges)  
*Hypericum* aff. *japonicum* (b) (CHR 140620; “tarn”)  
*Pachycladon exilis* (Heenan) Heenan et A.Mitch.  
*Pachycladon cheesemani* Heenan et A.Mitch.  
*Leucopogon xerampelinus* de Lange,  
 Heenan et M.I.Dawson  
*Libertia edgariae* Blanchon, Braggins et B.G.Murray  
*Libertia cranwelliae* Blanchon, Braggins et B.G.Murray  
*Libertia* aff. *ixioides* (b) (CHR 174779; Omaha)  
*Libertia* aff. *peregrinans* (AK 14642; “nonoploid”)  
*Myosotis* aff. *australis* (AK 231051; “small white”)  
*Myosotis* aff. *brockiei* (CHR 497375; Lake Otuhie)  
*Olearia crebra* E.K.Cameron et Heenan  
*Oxalis* aff. *rubens* (AK 234308; “scree”)  
*Pachystegia* aff. *insignis* (CHR 565298; Lowry)  
*Pimelea* (b) (AK 165780; Mt Manaia)  
*Pimelea* (c) (CHR 511713; “tarn”)  
*Pimelea* (d) (CHR 472016; Pisa)  
*Pimelea* aff. *sericeovillosa* (CHR 467766; Cobb)  
*Pimelea* aff. *tomentosa* (b) (AK 130893; Surville Cliffs)  
*Pimelea* aff. *tomentosa* (c) (AK 228145; Three Kings)  
*Pseudopanax* aff. *lessonii* (AK 46066; Surville Cliffs)  
*Pteris* aff. *macilentia* (AK 210045; Punakaiki)  
*Polystichum vestitum* (G.Forst.) C.Presl  
*Diplodium alveatum* (Garnet) D.L.Jones et M.A.Clem.  
*Pterostylis silvicultrix* (F.Muell.) Molloy,  
 D.L.Jones et M.A.Clem.  
*Linguella puberula* (Hook.f.) D.L.Jones, M.A.Clem.  
 et Molloy  
*Hymenochilus tanypoda* (D.L.Jones, Molloy  
 et M.A.Clem.) D.L.Jones, M.A.Clem. et Molloy  
*Plumatichilos tasmanicum* (D.L.Jones) D.L.Szlachetko  
*Hymenochilus tristis* (Colenso) D.L.Jones, M.A.Clem.  
 et Molloy  
*Pterostylis auriculata* Colenso  
*Ranunculus* (b) (CHR 324466; Burgoo Stream)  
*Raoulia* (c) (CHR 401140; “M”)  
*Rubus* aff. *schmidelioides* (CHR 325720; “strawberry”)  
*Stellaria* aff. *parviflora* (AK 169580; Poor Knights)  
*Thelymitra* aff. *ixioides* (AK 251348; New Zealand)

*Thelymitra* (b) (CHR; “darkie”)  
*Thelymitra* (c) (CHR; “rough leaf”)  
*Utricularia protrusa* Hook.f.

*Thelymitra* (b) (CHR 518036; “darkie”)  
*Thelymitra* (c) (CHR 518036; “rough leaf”)  
*Utricularia australis* R.Br.

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\*The exact status of specimens of *Chiloglottis*, collected by R. H. Matthews near Kaitaia between 1901 and 1914, and attributed to *C. formicifera* Fitz. by Cheeseman (1901) and Moore (in Moore & Edgar 1970) has been problematic. Although these specimens have many features of *C. formicifera*, they are more similar to *C. trapeziformis* Fitz. where they were placed by Molloy (in de Lange & Murray 2002). Recently this decision has been questioned (Scanlen 2003). On the latest advice, the Australian authority on the genus, D. L. Jones (pers. comm.) who has examined Matthews’ material, has placed these specimens within *C. trapeziformis*. It should also be noted that bona fide *C. trapeziformis* is known from New Zealand based on recent gatherings made near Hokio beach during 2001 (de Lange & Murray 2002).