



Conservation Status of Indigenous Vascular Plants in Otago, 2025

Scott Jarvie, John Barkla, Brian Rance, Geoff Rogers, Richard Ewans, Mike Thorsen

July 2025

Otago Threat Classification Series 9

orc.govt.nz



Otago
Regional
Council



Conservation status of indigenous vascular plants in Otago, 2025

July 2025 –
Otago Threat Classification Series 9

Scott Jarvie

Otago Regional Council, Ōtepoti Dunedin

John Barkla

Ōtepoti Dunedin

Brian Rance

Waihōpai Invercargill

Geoff Rogers

Wānaka

Richard Ewans

Department of Conservation | Te Papa Atawhai, Ōtepoti Dunedin

Mike Thorsen

Whirika Consulting, Ōtepoti Dunedin

Otago Regional Council

Otago Threat Classification Series 9

ISSN 2816-0983 (web PDF)

ISBN 978-1-7385867-8-3 (web PDF)

Otago Threat Classification Series is a scientific monograph series presenting publications related to regional threats assessments of groups of taxa in the Otago region. Most will be lists providing regional threat assessments of members of a plant or animal group (e.g., amphibians, bats, birds, indigenous vascular plants, reptiles, selected species of mushroom fungi – non-lichenised agarics, boletes and russuloid, Onychophora), and leverages off national assessments for the New Zealand Threat Classification System within the regional context.

Recommended citation

Jarvie, S., Barkla, J., Rance, B., Rogers, G., Ewans, R., Thorsen, M. (2025). Conservation status of indigenous vascular plants in Otago. Otago Regional Council, Otago Threat Classification Series, 2025/1

Front and back cover image credit

Helichrysum simpsonii subsp. *tumidum*, Threatened – Regionally Vulnerable. Photograph by John Barkla

Frontispiece image credit

Craspedia argentea, Threatened – Regionally Critical. Photograph by John Barkla

© Copyright July 2025, Otago Regional Council.

Published by Otago Regional Council, PO Box 1954, Ōtepoti Dunedin 9054, Aotearoa New Zealand.

The views published in this report on the conservation statuses reflect the views of an independent panel and are not necessarily the view of the Otago Regional Council.

This publication is available for download from the Otago Regional Council website.

In the interest of forest conservation, we support paperless electronic publishing.



This document is licenced for re-use under a [Creative Commons Attribution 4.0 International licence](https://creativecommons.org/licenses/by/4.0/). In summary, you are free to copy, distribute and adapt the material, if you attribute it to the Otago Regional Council and abide by the other licence terms.

Disclaimer

While care and diligence has been taken in processing, analysing and extracting data and information for this publication, the Otago Regional Council and the independent panels who came up with the conservation statuses accept no liability whatsoever in relation to any loss, damage or other costs relating to the use of any part of this report (including any data) or any compilations, derivative works or modifications of this report (including any data).

Executive Summary

This report is an update of the regional conservation status of all indigenous vascular plant taxa known in Otago and supersedes an earlier version from 2024. Standardised methodology was followed to assess the regional threat status of 1307 indigenous vascular plant taxa in the Otago Region. Two hundred forty-eight indigenous plant taxa were assessed as Regionally Threatened (Regionally Critical = 98; Regionally Endangered = 77; Regionally Vulnerable = 73), 297 as Regionally At Risk (Regionally Declining = 54; Regionally Naturally Uncommon = 243), 598 as Regionally Not Threatened, one as Regional Non-resident Native (Regional Coloniser = 1), and 153 as Regionally Data Deficient. The percentage of indigenous vascular plant taxa in Otago that are Regionally Threatened is 19.1 %, Regionally At Risk is 22.8 %, and for Regionally Data Deficient is 11.5 %. An additional 10 taxa were identified that have become extinct or may have formerly occurred in the region. Moreover, a further 17 indigenous vascular plant taxa were assessed that are not in the national assessment but were considered to be legitimate.

Table of Contents

Executive Summary.....	v
1. Introduction	7
2. Methods.....	9
3. Results	13
Regionally Extirpated (10)	16
Regionally Data Deficient (153).....	17
Regionally Threatened (248)	23
Regionally At Risk (297)	56
Regionally Non-Resident Native (1)	89
Regionally Not Threatened (598)	90
Assessed taxa not in the New Zealand Threat Classification System (17)	111
Adventive indigenous vascular plant taxa from Aotearoa New Zealand reproducing in the wild in Otago.	114
4. Discussion	115
5. Acknowledgements	120
References	122
Appendix 1: Process for determining the regional threat status of taxa	131
Appendix 2: List of Regional Qualifiers for Regional Conservation Threat Assessments	132
Appendix 3: List of National Qualifiers from the New Zealand Threat Classification System	133
Appendix 4: Map of the Otago Region.	140
Appendix 5. Regional conservation status for 17 indigenous vascular plants in the Otago region not assessed in the national assessment.	141
Appendix 6: Indigenous vascular plants found only in Otago	142

Introduction

Threat classifications play an important role in monitoring biodiversity and informing conservation actions. The New Zealand Threat Classification System (NZTCS) is a tool used to assign a threat status to candidate taxa (species, subspecies, varieties, and forma) in Aotearoa New Zealand (Rolfe et al. 2022). The classification system was developed to apply equally to terrestrial, freshwater, and marine biota (flora, fauna, and fungi). The NZTCS scores taxa at the national scale against criteria based on an understanding of population state, size, and trend, while considering population status, impact of threats, recovery potential, and taxonomic certainty. The Department of Conservation | Te Papa Atawhai (DOC) administers the NZTCS in Aotearoa New Zealand, with national assessments used to inform conservation action, target resources, and monitor biodiversity trends and conservation effectiveness.

While DOC is tasked with managing indigenous taxa nationally under the Wildlife Act (1953), regional and district councils have statutory obligations to maintain indigenous biodiversity under the Resource Management Act 1991 (RMA), including to manage the habitats of threatened taxa. A regional threat status of taxa is particularly important in the context of the RMA and in conservation planning. A key requirement of managing the habitats occupied by taxa is to understand regional population sizes and distributions, and to monitor trends and management effectiveness.

This report is an update to, and supersedes, a regional conservation status assessment for indigenous vascular plants in the Otago Region (Jarvie et al. 2024c). Regional threat assessments have now been completed following a standardised methodology by Otago Regional Council for six taxonomic groups (bats, Jarvie et al. 2023a; amphibians, Jarvie 2024; selected species of mushroom fungi – non-lichenised agarics, boletes, and russuloid fungi, Jarvie and Cooper, 2024; reptiles, Jarvie et al. 2024a; birds, Jarvie et al. 2024b; indigenous vascular plants, Jarvie et al. 2023b; Jarvie et al. 2024c), Greater Wellington Regional Council for five taxonomic groups (birds, Crisp et al. 2024; indigenous freshwater fish, Crisp et al. 2022; indigenous vascular plants, Crisp 2020a; reptiles, Crisp et al. 2023b; bats, Crisp et al. 2023b) and Auckland Council for five taxonomic groups (amphibians, Melzer et al. 2022a; reptiles, Melzer et al. 2022b; indigenous vascular plants, Simpkins et al. 2023; bats, Woolly et al. 2023; freshwater fish, Bloxham et al. 2023) as of December 2024. Regional threat assessments also provide a stronger foundation for assessing the threat status of taxa nationally. The methodology for the regional threat assessments leverages off national threat

assessments as determined using the NZTCS (Rolfe et al. 2022), with thresholds for area of occupancy or species numbers adjusted for the land area in the region (Appendix 1). National strongholds and additional regional qualifiers are also considered (Appendix 2).

Methods

The regional threat status of indigenous vascular plants for Otago was assessed by a panel of experts (John Barkla, Richard Ewans, Brian Rance, Geoff Rogers, and Mike Thorsen) and an Otago Regional Council (ORC) ecologist (Scott Jarvie) in December 2024 through to January 2025. This assessment covers all indigenous vascular plant taxa in the region, following standardised methodology for regional threat assessments as shown in Appendix 1, the list of regional qualifiers in Appendix 2, and the list of national qualifiers in Appendix 3. The national threat assessments and national qualifiers were from de Lange et al. (2024). All the taxa in this regional assessment were classified following de Lange et al. (2024) as: ‘taxonomically determinate’, i.e., legitimately and effectively published and generally accepted by relevant experts as distinct; and ‘taxonomically unresolved’, i.e., used loosely to include both undescribed entities which still require formal taxonomic research to confirm their validity and provide them with a formal name and, occasionally, described species whose taxonomic validity is in question.

Following the standardised methodology, indigenous vascular plant taxa recognised in the NZTCS list (de Lange et al. 2024) but not known to occur naturally in Otago were first removed from consideration. The next step was to identify Nationally Threatened and At-Risk taxa that are present in the region. If more than 20% of the national population is breeding or resident for more than half their life cycle in the region, taxa were assigned National Stronghold status and the NZTCS criteria applied. In this exercise, the regional conservation status must not be of a lower threat status than the national status. For example, a Nationally Endangered taxon cannot be assessed as Regionally Vulnerable or lower but could be assessed as Regionally Critical.

Regional thresholds were set at more than 2000 mature individuals present or occupancy of more than 1000 ha. If taxa did not meet the threshold, they were assigned a regional threat status by applying the NZTCS criteria. If taxa meet the threshold and the population trend was $\pm 10\%$ stable or increasing, they were assigned the status Regionally Not Threatened. For Nationally Not Threatened and Non-Resident taxa, the regional population threshold was applied. If the population was not stable to increasing or decreasing by more than 10%, the NZTCS criteria were used to determine the regional threat status. Population trend criteria are applied based on current knowledge, representing trends over the next 10 years or 3 generations, whichever is longer.

Indigenous vascular plant taxa not included in the NZTCS but considered by the expert panel as ‘taxonomically determinate’ or ‘taxonomically unresolved’ are included in a

separate table. Indigenous Aotearoa New Zealand taxa that have been introduced to Otago but for which the region is not part of their natural distribution, are also included in a separate table.

To inform decisions on distributions and area of occupancy for assessment of the regional threat status of indigenous vascular plant taxa, occurrence records from online databases were used (e.g., Auckland Museum Herbarium – Tāmaki Paena Hira, CHR Allan Herbarium – Te Kohinga Tipu o Aotearoa, iNaturalist, National Vegetation Survey or NVS, Botanical Information and Ecology Network or BIEN, Global Biodiversity Information Facility or GBIF). These records were then taxonomically harmonised with the list of indigenous vascular plant taxa in the NZTCS where possible (de Lange et al. 2024). In addition to occurrence records, the panel used plant check lists compiled by themselves or others, e.g., Druce list number 292 for Mountains of Inland Otago and Northern Southland (Druce 2006), Protected National Area Programme (PNAP) reports for Otago, New Zealand Plant Conservation Network, the Flora of New Zealand series, and local, regional, and national personal communications. The PNAP reports for Otago that were checked for species occurrence records were those for the following Ecological Districts: Dansey (Comrie 1992), Dunstan (Ward et al. 1994), Hawkdun (Grove 1994), Lindis (Ward et al. 1994), Macraes (Bibby 1997), Maniototo (Grove 1994), Manorburn (Fagan and Pillai 1992), Nokomai (Dickinson 1989), Old Man (Brumley et al. 1986), Pisa (Ward et al. 1994), Umbrella (Dickinson 1988), and Waipori (Carter 1994). Additional records were also suggested following release of the initial regional assessment (e.g., Schloots 2024, David Lyttle pers. comm. 2024, Pat Enright pers. comm. 2024). The panel critically assessed the available data and drew on their own expert knowledge to consider current and likely future threats to determine the status and qualifiers for each taxon.

Type localities (TLs) are included as a qualifier and details of the type locality is specified in the notes column of the tables to highlight their scientific significance in the region, including accession numbers (ACNOs) where relevant. There are several different categories of types recognised under the International Code of Nomenclature (ICN; Turland et al. 2017), and are shown in this report where known: ‘holotype’, i.e., the single specimen designated as the type of a species by the original authors at the time the species name and description was published; ‘isotype’, i.e., a duplicate specimen of the holotype; ‘syntype’, i.e., any of two or more specimens listed in the original description of a taxon when a holotype was not designated; isosyntype, i.e., duplicates of a syntype; ‘lectotype’, i.e., a specimen chosen from among the specimens available to the original author of a name when the holotype was either lost or destroyed, or when no holotype was designated; ‘isolectotype’, i.e., duplicate of a lectotype; ‘neotype’, i.e., a specimen

chosen by a later researcher to serve in place of a holotype when all specimens available to the original author of a name have been lost or destroyed; and ‘isoneotype’, i.e., duplicate of a neotype.

The following categories have no standing under the ICN, and are therefore not shown in this report: ‘paratype’, i.e., a specimen not formally designated as a type but cited along with the type collection in the original description of a taxon; ‘topotype’, i.e., a specimen of a plant collected from the same locality as the holotype, not necessarily at the same time; ‘cotype’, i.e., an old term used by some authors for additional (different) specimens that supported their taxonomic concept; and lectotype, i.e., a name sometimes used for the unselected remainder when a lectotype is selected from a number of syntypes.

If no specific site for a type locality is known, but could include Otago, this is recorded as ‘TL?’. This was for the taxa where records stated: “likely to occur”, “throughout South Island”, “throughout eastern South Island”, “on and west of Main Divide” (even if an Otago locality was not mentioned), and where distributions mention “scattered South Island but no Otago locality listed”. Further investigation would especially be needed in such cases. The type locality information was compiled from information curated in the GBIF (2025), the Atlas of Living Australia (ALA, Belbin et al. 2021), the Flora and eFlora Series (Breitweiser et al. 2023; specifically Flora Vol. 1, Vol. 2 and Vol. 3; Allan, 1961; Moore and Edgar, 1976, and Edgar and Connor, 2010, respectively), and also mostly from the following herbaria: Otago Regional Herbarium – Te māra Otaota o Otago (OTA), Allan Herbarium – Te Kohinga Tipu o Aotearoa (CHR), Museum of New Zealand – Te Papa Tongarewa Herbarium (WELT), and Auckland Museum Herbarium – Tāmaki Paena Hira (AK). Other herbarium type localities were noted when reviewing information from eFlora, GBIF and ALA. These include Kew Gardens Herbarium, London (K), the former Wellington Dominion Museum (W), the former DSIR Botany Division (BD), and the former Otago Museum (OM); sometimes registration numbers were not readily available, but the herbarium is still noted. Type locality information was also extracted from recent publications describing new species in Otago, including Breitweiser and Ford (2022), Burrows (2008), Burrows (2009), Burrows (2011), de Lange et al. (2013), de Lange and Blanchon (2023), Edgar and Connor (2010), Heads (1998), Heads (1990), Heenan (2017), MacMillan (1991), Meudt and Prebble (2018), Meudt (2008), Meudt et al. (2020), Moore and Edgar (1976), Prebble et al. (2022), Saldivia (2023), and Thorsen and de Lange (2016). The curation of type locality information is often part of an ongoing process at herbaria, with updates, new images and records being added regularly. In some cases, such records are yet to be confirmed by herbarium staff, and consequently there could be mistakes or omissions in the information presented. Hyperlinks are provided to

institutions with registration numbers to facilitate checking of the source material for type locality information, where known.

For taxa with the qualifiers regional endemic (RE), one location (OL), and designated (De), explanatory information is also provided in the notes column of the tables. For taxa that have had their taxonomic names changed since de Lange et al. (2024), their previous name and authority are provided in the notes column.

Regional conservation assessments for indigenous vascular plant taxa were completed in a locally operated dashboard using R v. 4.2.2 (R Core Team 2022) via the RStudio platform (Posit Team 2023). The main packages used for the dashboard were 'shiny' (Chang et al. 2021) and 'flexdashboard' (Iannone et al. 2020). Other packages used in the dashboard and for other data wrangling include the 'tidyverse' (Wickham et al. 2019), 'readxl' (Wickham and Bryan 2022), sf (Pebesma 2018), lubridate (Grolemund and Wickham 2011), leaflet (Cheng et al. 2022), leaflet.extras (Karambelkar and Schloerke 2018), plotly (Sievert 2020), janitor (Firke 2020), ggplot2 (Wickham 2016), and terra (Hijmans 2022). The map layers used to view records in the dashboard were OpenStreetMap (OpenStreetMap Contributors 2017) and Esri World Imagery (Esri 2023).

Results

A total of 1307 indigenous vascular plant taxa were identified as present in the Otago region that were listed in the NZTCS (excluding introduced and naturalised species; Figure 1, Tables 1–4). Of these taxa, 248 are Regionally Threatened, 297 are Regionally At Risk, one is Regionally Non-resident, 598 are Regionally Not Threatened, and 153 are Regionally Data Deficient. Ten taxa were also identified as Regionally Extirpated (likely now extinct in the Otago region). Additionally, 17 taxa were assessed but are not in the NZTCS; nine of these were Regionally Data Deficient, four were Threatened, two were At Risk, and two were Not Threatened.

Of the Regionally Threatened taxa in the Otago region in the NZTCS, 98 are Regionally Critical, 77 are Regionally Endangered, 73 are Regionally Vulnerable. Of the Regionally At Risk taxa in the NZTCS, 54 are Regionally Declining and 243 are Regionally Naturally Uncommon. The number of Regionally Not Threatened was 598. For Regionally Non-resident Native species, only one was identified as a Regional Coloniser. In Otago 10 indigenous vascular plant taxa were identified as likely now extinct in the region, with one being nationally extinct.

The region was identified as a National Stronghold (i.e., containing > 20% of the national population) for 330 taxa of the Regionally Threatened and Regionally At Risk indigenous vascular plants. Of those taxa with National Strongholds in Otago, 39 were identified as Regional Endemics, meaning they are not found elsewhere. The panel noted for Regionally Threatened and Regionally At Risk taxa around 17% of taxa were at natural northern and southern limits within the region, excluding the Regional Endemics taxa. Taxa with identified type localities in the Otago region was around 21.5%.

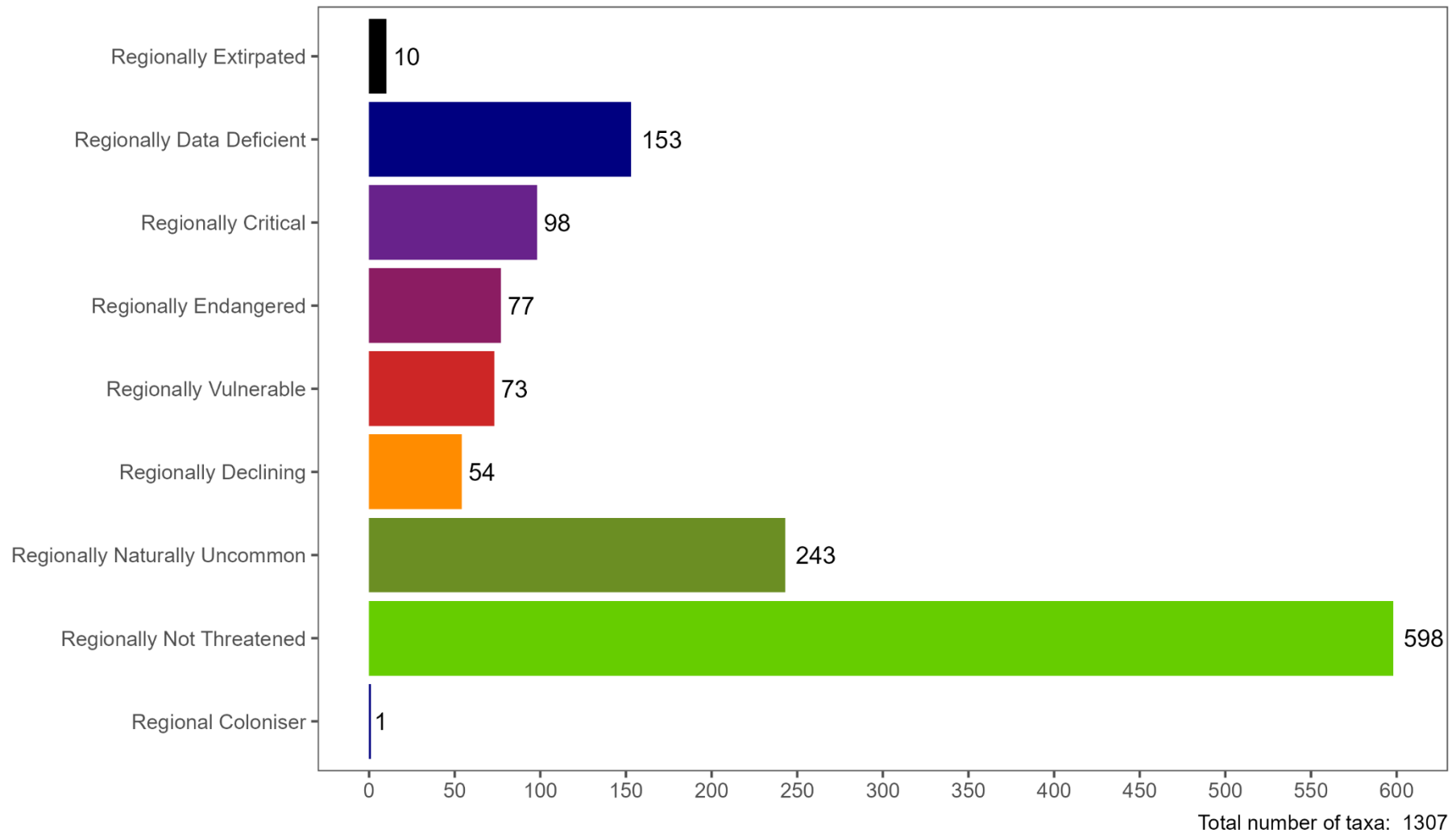


Figure 1: Regional conservation status of indigenous vascular plants in the Otago region. The total of 1307 indigenous vascular plants shown in Figure 1 does not include 17 taxa not included in the national assessment (de Lange et al. 2024) considered by

the expert panel to be legitimate. Appendix 5 shows the figure for these 17 taxa assessed regionally, including their regional conservation status.

Regionally Extirpated (10)

Taxa for which there is no reasonable doubt that the species is no longer present in the wild in Otago.

Table 1: Regionally Extirpated indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY EXTIRPATED (10)					
NATIONALLY EXTINCT (1)					
TAXONOMICALLY DETERMINATE (1)					
<i>Stellaria multiflora</i> subsp. <i>multiflora</i> Hook.	chickweed	Extinct	TL		TL = voucher specimens: Eweburn School, near Naseby / Gorge Creek, Clutha/Mata-au River / Spear Grass Flat, Alexandra. Previous Name and Authority: <i>Stellaria elatinoides</i> Hook.f. Notes: this taxon was last collected in Aotearoa New Zealand in 1921 (Heenan 2019).
REGIONALLY EXTIRPATED (9)					
TAXONOMICALLY DETERMINATE (9)					
<i>Atriplex billardierei</i> (Moq.) Hook.f.	crystalwort	Nationally Endangered			
<i>Carmichaelia juncea</i> Hook.f.	tangle broom	Nationally Vulnerable	HR, TL	CD, DP, EF	TL = L, ISL: Otago. ACNOs: L CHR 45814 C ; ISL CHR 45814 A , CHR 45814 B
<i>Chenopodium detestans</i> Kirk	New Zealand fish-guts plant	Nationally Critical	HR	DP, EF, TO	
<i>Pachycladon exile</i> (Heenan) Heenan & A.D.Mitch.	cress	Nationally Critical		CD, OL	
<i>Pimelea</i> aff. <i>villosa</i> (AK 216133; southern New Zealand)		Nationally Vulnerable	HR	DP, RR, RF	
<i>Poa billardierei</i> (Spreng.) St.-Yves	sand tussock	Declining		PD, RR, SO	
<i>Rytidosperma exiguum</i> (Kirk) H.P.Linder		Declining	HR	DP	
<i>Senecio scaberulus</i> (Hook.f.) D.G.Drury	fireweed	Nationally Critical	HR	EF	
<i>Sophora prostrata</i> Buchanan		Not Threatened			

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural State; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure?Overseas; TO = Threatened Overseas; TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation; PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype; I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Regionally Data Deficient (153)

Taxa that are suspected to be threatened or, in some instances, possibly extinct in Otago but are not definitely known to belong to any particular category due to a lack of current information about their distribution and abundance (for a fuller definition see Townsend et al. 2008).

Table 2: Regionally Data Deficient indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY DATA DEFICIENT (153)					
<i>TAXONOMICALLY DETERMINATE (124)</i>					
<i>Abrotanella rostrata</i> Swenson		Naturally Uncommon		DP, RR, Sp	
<i>Acianthus sinclairii</i> Hook.f.	heart-leaved orchid	Not Threatened			
<i>Aciphylla congesta</i> Cheeseman		Not Threatened		RR	
<i>Aciphylla multisepta</i> Cheeseman		Declining		DP, RR, Sp	
<i>Adiantum diaphanum</i> Blume	small maidenhair fern	Not Threatened			
<i>Agrostis imbecilla</i> Zotov		Data Deficient	TL	Sp	TL = H, I: Macraes, Waihemo County, Otago. ACNOs: H WELT SP069601 ; I AK 1434
<i>Agrostis magellanica</i> Lam.		Naturally Uncommon		SO	
<i>Agrostis petriei</i> Hack.		Not Threatened	TL	DP, Sp	TL = H, I: Nevis Valley, Tapuae-o-Uenuku Hector Mountains, Central Otago / Cromwell, Central Otago. ACNOs: H W SP036494; I WELT SP068876 , CHR 25061 / H: W SP07926, I AK 1425 (1), (2), WELT SP068873
<i>Astelia linearis</i> Hook.f. var. <i>linearis</i>		Not Threatened			
<i>Botrychium australe</i> R.Br.	parsley fern	Declining		DP, EF, SO, Sp	
<i>Caladenia variegata</i> Colenso	finger orchid	Naturally Uncommon		NStr	
<i>Caltha novae-zelandiae</i> Hook.f.	New Zealand marsh marigold	Not Threatened			
<i>Calystegia sepium</i> subsp. <i>roseata</i> Brummitt	pink bindweed	Not Threatened			
<i>Cardamine eminentia</i> Heenan	cress	Naturally Uncommon		DP, Sp	
<i>Cardamine glara</i> Heenan	cress	Not Threatened			
<i>Cardamine grandiscapa</i>	cress	Naturally Uncommon	TL	DP	TL = H: Remarkables, Wye Creek. ACNO: H CHR 617195
<i>Cardamine sinuatifolia</i> Heenan	cress	Data Deficient		DP, RR, Sp	
<i>Cardamine unguiculus</i> Heenan	cress	Naturally Uncommon			
<i>Cardamine unicalis</i> Heenan	cress	Data Deficient			
<i>Carex stricta</i> K.A.Ford	hook sedge	Not Threatened			
<i>Carex aucklandica</i> (Hamlin) K.A.Ford	subantarctic hook grass	Naturally Uncommon		DP, RR	
<i>Carex cheesemaniana</i> (Boeckeler) K.A.Ford	hook sedge	Not Threatened		SO	
<i>Carex cockayneana</i> Kük.	Cockayne's sedge	Not Threatened			
<i>Carex drucei</i> (Hamlin) K.A.Ford	Druce's hook sedge	Not Threatened			
<i>Carex enysii</i> Petrie	Enys's sedge	Naturally Uncommon		DP, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Data Deficient continued

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Carex erythrovaginata</i> K.A.Ford	lax hook sedge	Not Threatened			
<i>Carex goyenii</i> Petrie	Goyen's sedge	Not Threatened	TL		TL = L?: forest land at head of Lake Whakatipu. ACNO: L? AK 2616
<i>Carex hamlinii</i> K.A.Ford	Aston's hook sedge	Not Threatened			
<i>Carex healyi</i> K.A.Ford	harsh-leaved hook sedge	Not Threatened			
<i>Carex kirkii</i> var. <i>kirkii</i> Petrie	Kirk's sedge	Naturally Uncommon	TL		TL = L: Mount Pisa, head waters of Luggate Creek. ACNO: L AK 2480 . Previous Name and Authority: <i>Carex kirkii</i> Petrie
<i>Carex lambertiana</i> Boott	forest sedge	Not Threatened			
<i>Carex libera</i> (Kük.) Hamlin	sedge	Not Threatened			
<i>Carex longifructus</i> (Kük.) K.A.Ford	hook sedge	Naturally Uncommon	TL	DP, Sp	TL = L, ISL: Routeburn. ACNOs: L WELT SP001778 , ISL AK2328
<i>Carex obtusifolia</i> (Heenan) K.A.Ford	fine-leaved hook sedge	Naturally Uncommon		Sp	
<i>Carex silvestris</i> (Hamlin) K.A.Ford	forest hook sedge	Not Threatened			
<i>Carex subviridis</i> K.A.Ford	hook sedge	Not Threatened			
<i>Carmichaelia uniflora</i> Kirk	dwarf broom	Declining		DP	
<i>Colobanthus monticola</i> Petrie	colobanthus	Not Threatened	TL		TL = S: Bald Hill Flat, near Clutha/Mata-au River at "Gorge Creek", near Alexandra. ACNO: S WELT SP050960
<i>Convolvulus fractosaxosa</i> Petrie	shingle convolvulus	Naturally Uncommon		DP, Sp	
<i>Coriaria angustissima</i> Hook.f.	small-leaved tutu	Not Threatened	TL		TL = H, S: Otago Lake District / Mount Alta, Wānaka ED. ACNOs: H K?; S AK 5090
<i>Corybas acuminatus</i> M.A.Clem. & Hatch	spider orchid	Not Threatened			
<i>Corybas cheesemanii</i> (Hook.f. ex Kirk) Kuntze		Not Threatened	OL		
<i>Corybas cryptanthus</i> Hatch		Naturally Uncommon		Sp, DPS, DPT	
<i>Corybas hypogaeus</i> (Colenso) Lehnbebach		Naturally Uncommon			
<i>Corybas sulcatus</i> (M.A.Clem. & D.L.Jones) G.N.Backh.		Data Deficient			
<i>Corybas vitreus</i> Lehnbebach	spider orchid	Not Threatened			
<i>Craspedia lanata</i> var. <i>elongata</i> Allan		Not Threatened			
<i>Craspedia minor</i> (Hook.f.) Allan		Not Threatened			
<i>Craspedia robusta</i> (Hook.f.) Cockayne var. <i>robusta</i>		Not Threatened			
<i>Deschampsia chapmanii</i> Petrie		Not Threatened	TL		TL = L, ISL: Tapuae-o-Uenuku Hector Mountains, ca. 5000 ft. ACNOs: L WELT SP069475/A ; ISL CHR 2808 , WELT SP069475/B
<i>Deschampsia pusilla</i> Petrie		Naturally Uncommon	TL	Sp	TL = L, ISL, ISL (putative), ISL?: Tapuae-o-Uenuku Hector Mountains. ACNOs: L WELT SP069433 ; ISL CHR 333257 ; ISL (putative) WELT SP068263 , WELT SP069431 , WELT SP076980 ; ISL? AK 223532 , AK 1534
<i>Dracophyllum oliveri</i> Du Rietz		Not Threatened			
<i>Dracophyllum traversii</i> Hook.f.	mountain neinei	Not Threatened			
<i>Drymoanthus adversus</i> (Hook.f.) Dockrill		Not Threatened			
<i>Epilobium billardioreanum</i> DC.		Declining		DPR, DPS, DPT, SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Data Deficient continued

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Epilobium cockayneanum</i> Petrie		Naturally Uncommon			
<i>Epilobium gracilipes</i> Kirk		Naturally Uncommon			
<i>Epilobium krullianum</i> Hausskn.		Data Deficient			
<i>Epilobium tenuipes</i> Hook.f.		Not Threatened			
<i>Euchiton involucreatus</i> (G.Forst.) Holub.		Not Threatened		SO	
<i>Euchiton japonicus</i> (Thunb.) Holub		Not Threatened		SO	
<i>Festuca matthewsii</i> (Hack.) Cheeseman subsp. <i>matthewsii</i>		Not Threatened	TL		TL = ISL: Mount Bonpland, Humboldt Mountains, West of Lake Whakatipu. ACNOs: ISL AK 1990 , AK 212981 , CHR 1537 , CHR 2870 .
<i>Festuca multinodis</i> Petrie & Hack.		Not Threatened			
<i>Gastrodia minor</i> Petrie		Not Threatened	TL		TL = S: Town Belt, Ōtepoti Dunedin, in shady manuka bush, Dunedin ED / near northern cemetery, Ōtepoti Dunedin. ACNOs: S AK 3688 , WELT SP019064
<i>Geranium cruentum</i> Heenan & G.M.Rogers	Von geranium	Data Deficient	CD, De, EW, RE	CD, EW	Previous Name and Authority: <i>Geranium</i> (c) (CHR 546319; Von)
<i>Geranium potentilloides</i> L'Her. ex DC.		Not Threatened	TL	SO	TL = S: Flagstaff Hill, Ōtepoti Dunedin. ACNOs S AK 22911 , AK 22912
<i>Geranium solanderi</i> Carolin		Not Threatened			
<i>Gleichenia dicarpa</i> R.Br.		Not Threatened			
<i>Gleichenia microphylla</i> R.Br.	carrier tangle fern	Not Threatened		SO	
<i>Glossostigma cleistanthum</i> W.R.Barker		Not Threatened			
<i>Gonocarpus incanus</i> (A.Cunn.) Orchard		Not Threatened			
<i>Hierochloa cuprea</i> Zotov		Declining			
<i>Hierochloa equisetula</i> Zotov		Not Threatened	TL		TL = H: Bold Peak, Humboldt Mountains. ACNO: H CHR 9679
<i>Hierochloa fusca</i> Zotov		Not Threatened			
<i>Hymenophyllum australe</i> Willd.	filmy fern	Naturally Uncommon	TL	DP, RR, SO, Sp	TL = I: near Lake Whakatipu. ACNO: I CHR 293758 Previous Name and Authority: <i>Hymenophyllum atrovirens</i> Willd.
<i>Hypericum involutum</i> (Labill.) Choisy		Declining		DP, SO	
<i>Hypolepis dicksonioides</i> (Endl.) Hook.	giant hypolepis	Naturally Uncommon		EF, SO, Sp	
<i>Hypolepis lactea</i> Brownsey & Chinnock		Not Threatened			
<i>Isolepis inundata</i> R.Br.	sedge	Not Threatened		SO	
<i>Isolepis subtilissima</i> Boeckeler		Not Threatened			
<i>Juncus australis</i> Hook.f.		Not Threatened		SO	
<i>Lachnagrostis glabra</i> (Petrie) Edgar		Data Deficient			
<i>Lachnagrostis littoralis</i> subsp. <i>salaria</i> Edgar		Not Threatened			
<i>Lagenophora schmidiae</i> de Lange et Jian Wang ter	papataniwha	Nationally Critical			
<i>Lemna disperma</i> Hegelm.	duckweed	Not Threatened			
<i>Leptinella squalida</i> Hook.f. subsp. <i>squalida</i>		Not Threatened			
<i>Lindsaea linearis</i> Sw.		Not Threatened		SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Data Deficient continued

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Luzula banksiana</i> E.Mey var. <i>banksiana</i>	wood-rush	Not Threatened			
<i>Luzula picta</i> A.Rich. var. <i>picta</i>	wood-rush	Not Threatened			
<i>Luzula picta</i> var. <i>limosa</i> Edgar	wood-rush	Not Threatened			
<i>Machaerina juncea</i> (R.Br.) T.Koyama		Not Threatened			
<i>Metrosideros perforata</i> (J.R.Forst. & G.Forst.) A.Rich.	akatea	Not Threatened		DP	
<i>Montia calycina</i> (Colenso) Pax & K.Hoffm.		Not Threatened			
<i>Montia campylostigma</i> (Heenan) Heenan		Naturally Uncommon			
<i>Myosotis suavis</i> Petrie		Naturally Uncommon			
<i>Notogrammitis givenii</i> (Parris) Parris		Not Threatened			
<i>Notogrammitis gunnii</i> (Parris) Parris	strap fern	Naturally Uncommon		SO	
<i>Oxalis rubens</i> Haw.		Not Threatened			
<i>Pachycladon fastigiatum</i> (Hook.f.) Heenan & A.D.Mitch.	hairless cress	Declining	TL	DP	TL = H, L: mountains near Lake Wānaka and Lake Ohau / head of Lake Ohau / Three Kings Mountain, Otago. ACNOs: H WELT SP083897 ; L WELT SP083898 , WELT SP083899
<i>Parapolystichum microsorum</i> (Endl.) Labiak, Sundue & R.C.Moran		Not Threatened			
<i>Parsonsia capsularis</i> var. <i>rosea</i> (Raoul) Cockayne	New Zealand jasmine	Data Deficient			
<i>Parsonsia capsularis</i> var. <i>tenuis</i> G.Simpson & J.S.Thomson	New Zealand jasmine	Data Deficient			
<i>Pentapogon quadriseta</i> (Labill.) P.M.Peterson, Romasch. & Soreng		Declining		DP, EF, SO	Previous Name and Authority: <i>Deyeuxia quadriseta</i> (Labill.) Benth.
<i>Picris angustifolia</i> subsp. <i>merxmuelleri</i> Lack & S.Holzäpfel		Naturally Uncommon		DP, SO	
<i>Poa intrusa</i> Edgar		Data Deficient			
<i>Poa senex</i> Edgar		Naturally Uncommon	TL	DP, RR	TL = H, I: Kopuwai Old Man Range, Otago. ACNOs: H CHR 133878 ; I CHR 133877 , CHR 133879 , CHR 133880 , CHR 133881
<i>Poa tennantiana</i> Petrie		Naturally Uncommon			
<i>Polygonum plebeium</i> R.Br.	small knotweed	Declining		DP, SO	
<i>Potamogeton ochreatus</i> Raoul	blunt pondweed	Not Threatened			
<i>Pterostylis auriculata</i> Colenso		Naturally Uncommon		DP, Sp	
<i>Pterostylis foliata</i> Hook.f.		Naturally Uncommon		SO, Sp	
<i>Pterostylis humilis</i> R.S.Rogers		Naturally Uncommon			
<i>Pterostylis patens</i> Colenso		Not Threatened			
<i>Schoenus nitens</i> (R.Br.) Roem. & Schult.		Not Threatened			
<i>Solanum americanum</i> Mill.	small-flowered nightshade	Not Threatened		SO	
<i>Stenostachys enysii</i> (Kirk) Barkworth & S.W.L.Jacobs		Naturally Uncommon			
<i>Stenostachys gracilis</i> (Hook.f.) Connor		Not Threatened		DP	
<i>Thelymitra colensoi</i> Hook.f.	Colenso's sun orchid	Data Deficient			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Data Deficient continued

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Thelymitra formosa</i> Colenso	sun orchid	Naturally Uncommon		EF, Sp	
<i>Veronica hookeri</i> (Buchanan) Garn.-Jones		Not Threatened	TL		TL = I, I?, T?: Mount Alta. ACNOs: T? WELT SP084569 ; I WELT SP013044 ; I? WELT SP013043
<i>Veronica macrocalyx</i> var. <i>humilis</i> (G.Simpson) Garn.-Jones		Not Threatened	TL		TL = H, L: slopes of Mount French / collected from slopes of Mount French. ACNOs: H CHR 550051 ; L CHR 76135
<i>Veronica quadrifaria</i> Kirk		Not Threatened	TL		TL = H: Mount Alta. ACNO: OM?
<i>Zoysia minima</i> (Colenso) Zotov	prickly couch	Declining		DP	
TAXONOMICALLY UNRESOLVED (28)					
<i>Agrostis</i> (a) (CHR 402485; Dunstan Range)		Data Deficient		OL	
<i>Agrostis</i> aff. <i>dyeri</i> (CHR 396099; "broad")		Not Threatened			
<i>Cardamine</i> (m) (OTA 36555; "Eweburn")	cress	Data Deficient			
<i>Cardamine</i> (q) (CHR 591775; west Otago)	cress	Data Deficient			
<i>Carex</i> (a) (AK 30599; <i>Carex potens</i> sensu Ford, 2015) (C.B.Clarke) Hamlin		Not Threatened	NStr, TL		TL = T?: Old Man Range. ACNOs: T? WELT SP001701, WELT SP001703
<i>Carex</i> aff. <i>testacea</i> (CHR 282870; "mountain")		Naturally Uncommon	DPR, DPS, DPT, RR		
<i>Carex</i> aff. <i>testacea</i> (CHR 236536; "raotest")		Not Threatened			
<i>Carex</i> aff. <i>wakatipu</i> (e) (CHR 472041; Bendigo)		Data Deficient	NStr, RE		
<i>Craspedia</i> (bbb) (CHR 668902; Tautuku)		Data Deficient	NStr		
<i>Craspedia</i> (ll) (CHR 629757; Otago)		Not Threatened	NStr, RE		
<i>Craspedia</i> (nn) (CHR 567299; "Rex")		Nationally Vulnerable			
<i>Craspedia</i> (pp) (CHR 673757; Skippers)		Data Deficient	NStr		
<i>Craspedia</i> (tt) (CHR 395562; Wye)		Data Deficient			
<i>Dichondra</i> aff. <i>brevifolia</i> (c) (AK 250307; "large flower")		Naturally Uncommon			
<i>Earina aestivalis</i> Cheeseman		Not Threatened			
<i>Hydrocotyle</i> aff. <i>novae-zeelandiae</i> var. <i>montana</i> (b) (CHR 312011; "coast")		Naturally Uncommon		DPS, DPT	
<i>Luzula</i> aff. <i>rufa</i> (b) (CHR 401733; "rhizomatous")		Not Threatened			
<i>Melicytus</i> aff. <i>alpinus</i> (c) (CHR 541568; Otago)		Data Deficient			
<i>Melicytus</i> aff. <i>alpinus</i> (d) (CHR 541567; "dark")		Data Deficient			
<i>Myosotis</i> aff. <i>australis</i> (c) (CHR 572827; Lammerlaw)		Data Deficient		Sp	
<i>Notogrammitis</i> aff. <i>ciliata</i> (b) (CHR 402521; "crenulate")		Data Deficient			
<i>Oxalis</i> aff. <i>rubens</i> (AK 234308; "scree")		Naturally Uncommon		Sp, DPS, DPT	
<i>Phyllocladus</i> aff. <i>alpinus</i> (a) (AK 282047; "lowland")		Not Threatened			
<i>Poa</i> aff. <i>colensoi</i> (b) (CHR 588417A; "large tussock")		Not Threatened			
<i>Poa</i> aff. <i>colensoi</i> (c) (CHR 395599; Rastus Burn)		Naturally Uncommon			
<i>Poa</i> aff. <i>sublimis</i> (CHR 402510; Eyre Mountains)		Data Deficient		OL	
<i>Raoulia</i> aff. <i>australis</i> (c) (CHR 468921; "North")		Data Deficient			
<i>Senecio</i> aff. <i>dunedinensis</i> (CHR 550250; Leatham)		Declining	NR	Sp, RR	

Conservation status of indigenous vascular plants in Otago

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural State; NStr = National Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure?Overseas; TO = Threatened Overseas' TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation' PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype, I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isoneotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Regionally Threatened (248)

Taxa that meet the criteria specified by Townsend et al. (2008) and Michel (2021) for the categories Regionally Critical, Regionally Endangered, Regionally Vulnerable or Regionally Increasing.

Regionally Critical (98)

Criteria for Regionally Critical:

A – very small population (natural or unnatural)

A(1) < 250 mature individuals

A(2) ≤ 2 subpopulations, ≤ 200 mature individuals in the larger subpopulation

A(3) Total area of occupancy ≤ 1 ha (0.01 km²)

B – small population (natural or unnatural) with a moderate ongoing or predicted decline of 50–70%

B(1) 250–1000 mature individuals

B(2) ≤ 5 subpopulations, ≤ 300 mature individuals in the largest subpopulation

B(3) Total area of occupancy ≤ 10 ha (0.1 km²)

C – population (irrespective of size or number of subpopulations) with a very high ongoing or predicted decline of > 70%

Table 3.3.1: Regionally Critical indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY CRITICAL (98)													
<i>TAXONOMICALLY DETERMINATE (92)</i>													
<i>Alsophila cunninghamii</i> (Hook.f.) R.M.Tryon		Not Threatened	A (1)			≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, NR, OL, SO		
<i>Amphibromus fluitans</i> Kirk	water brome	Declining	A (3)				≤ 1 ha		Low	Medium	DPR, DPS, DPT, EF, NR, RR	DP, TO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Anemanthele lessoniana</i> (Steud.) Veldkamp	gossamer grass	Declining	A (1)			≤ 250 mature individuals			Low	Low	DPS, DPT, Sp	DPS, DPT, Sp	
<i>Anogramma leptophylla</i> (L.) Link	Jersey fern	Declining	A (3)				≤ 1 ha		Low	Low	DPR, DPS, DPT, NR, PF, Sp	DP, RR, SO, Sp	
<i>Asplenium oblongifolium</i> Colenso	shining spleenwort	Not Threatened	A (1)			≤ 250 mature individuals			Low	Medium	DPR, DPS, DPT, NR, Sp		
<i>Astelia subulata</i> (Hook.f.) Cheeseman		Naturally Uncommon	A (3)				≤ 1 ha		Medium	Medium	DPS, DPT, NS, OL, St	RR, Sp	
<i>Botrychium bifforme</i> Colenso	fine-leaved parsley fern	Not Threatened	A (1)			< 250 mature individuals			Low	Low	DPR, DPS, DPT, Sp		
<i>Brachyscome linearis</i> (Petrie) Druce	daisy	Nationally Critical	A (1)			≤ 250 mature individuals			Medium	High	DPT, NR, OL, RR	CD, DP, RR, Sp	
<i>Cardamine dilatata</i> Heenan	cress	Nationally Critical	A (1)	Yes	Yes	≤ 250 mature individuals			Medium	High	DPS, DPT, NStr, OL, RR, Sp	DP	Distributional notes: While currently only known from the Macraes area, it was until recently present in south Canterbury. It was therefore not assigned the Regional Endemic qualifier as could still be found outside Otago
<i>Cardamine mutabilis</i> Heenan	Turf cress	Nationally Critical	A (3)	Yes			≤ 1 ha		Medium	Medium	DPS, DPT, EF, NR, NStr, RR, TL	CD, DP, EF, RR, Sp	TL = H: Lake Onslow, Fortification Stream. ACNO: H CHR 420058
<i>Cardamine sciaphila</i> Heenan	cress	Nationally Critical	A (1)	Yes	Yes	≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, NS, NStr, RE, RR, TL	DP, RR	RE = Central Otago endemic known from the Dunstan Mountains and Pisa Range. TL = H. Dunstan Mountains. ACNO: H CHR 514168

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Carex albula</i> Allan	white sedge	Nationally Critical	A (1)	Yes		≤ 250 mature individuals			High	High	DPR, NR, NStr, PF, RF	Sp	
<i>Carex carsei</i> Petrie	Carse's sedge	Naturally Uncommon	A (3)				≤ 1 ha		Low	Medium	DPS, DPT, PF, RR	DP	
<i>Carex cirrhosa</i> Berggr.	curly sedge	Nationally Endangered	A (3)				≤ 1 ha		Low	Low	DPS, DPT, RR	RR	
<i>Carex cyanea</i> K.A.Ford		Declining	A (3)				≤ 1 ha		High	High	DPR, NR, NS, OL	DP, Sp	
<i>Carex dallii</i> Kirk	Dall's sedge	Naturally Uncommon	A (3)	Yes			≤ 1 ha		Low	Low	DPR, DPS, DPT, NR, NStr, RR, Sp	DP	
<i>Carex inopinata</i> V.J.Cook	grassy mat sedge	Nationally Vulnerable	A (3)	Yes			≤ 1 ha		Medium	Medium	DPR, DPS, DPT, NR, NStr, PF, Sp	DP, Sp	
<i>Carex strictissima</i> (Kük.) K.A.Ford	hook sedge	Nationally Endangered	A (1)	Yes		≤ 250 mature individuals			Medium	Low	DPR, DPS, DPT, NStr, PF, RF, Sp, TL	DP	TL = H, I: Waitahuna, Tuapeka County, Otago. ACNOs: H WELT SP001494 ; I CHR 294890
<i>Carex uncifolia</i> Cheeseman	sedge	Declining	A (3)	Yes			≤ 1 ha		Medium	Medium	DPT, NStr, PF, RR, TL	RR, St, Sp	TL = H: Mount Cardrona. ACNO: H WELT 01891/A
<i>Carmichaelia corrugata</i> Colenso	common dwarf broom	Nationally Vulnerable	A (3)				≤ 1 ha		Low	Medium	DPS, DPT, PF, Sp	RF, Sp	
<i>Carmichaelia curta</i> Petrie	Waitaki broom	Nationally Critical	A (1)			≤ 250 mature individuals			Medium	High	DPS, DPT, NR, PF	DP, RF	
<i>Carmichaelia monroi</i> Hook.f.	Stout dwarf broom	Declining	A (1)			≤ 250 mature individuals			≤ 250 mature individuals		NR, RF, Sp		
<i>Carmichaelia nana</i> (Hook.f.) Hook.f.	Dwarf carmichaelia	Nationally Vulnerable	A (3)				≤ 1 ha		Low	Medium	DPS, DPT, PF, RR, TL	DP	
<i>Centipeda aotearoana</i> N.G.Walsh	New Zealand sneezewort	Not Threatened	A (3)				≤ 1 ha		Low	High	DPR, DPT, NR, OL		
<i>Ceratocephala pungens</i> Garn.-Jones		Nationally Critical	B (3)	Yes			≤ 10 ha		Medium	Low	DPS, DPT, EF, NR, NStr, TL	DP, EF, PD	TL = I: Bald Hill Flats, Clutha/Mata-au River. ACNO: I WELT SP061962

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Chaerophyllum colensoi</i> var. <i>delicatulum</i> (Allan) K. F. Chung		Nationally Endangered	A (3)				≤ 1 ha		Low	Medium	DPR, DPS, DPT, NS, RR	DP, EF, RR	Previous Name and Authority: <i>Chaerophyllum colensoi</i> var. <i>delicatulum</i> (CHR 73872; Hauhungaroa Range) (Allan) K. F. Chung
<i>Clematis quadriracteolata</i> Colenso	clematis	Naturally Uncommon	A (1)			≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, PF, Sp	DP, Sp	
<i>Convolvulus verecundus</i> f. <i>verecundus</i> Allan	trailing bindweed	Declining	A (3)	Yes			≤ 1 ha		High	High	DPT, NStr, PD, PF, RR	DP	Previous Name and Authority: <i>Convolvulus verecundus</i> Allan
<i>Coprosma obconica</i> Kirk	coprosma	Declining	A (1)	Yes		≤ 250 mature individuals			Low	Medium	DPT, NStr, PF, RF, RR	Sp	
<i>Coprosma pedicellata</i> Molloy, de Lange & B.D.Clarkson	coprosma	Declining	A (1)			≤ 250 mature individuals			Medium	High	DPT, PF, RR	CD, DP, RR	
<i>Craspedia argentea</i> Breitw. & K.A.Ford, sp. nov.		Nationally Critical	A (1)	Yes	Yes	≤ 250 mature individuals			High	High	CD, NStr, OL, RE, TL	DP, OL	RE = only known from one location in Central Otago. Previous Name and Authority: <i>Craspedia</i> (a) (CHR 511522; Clutha River) TL = H: Pisa Flats. ACNO: H CHR 588519
<i>Crassula multicaulis</i> (Petrie) A.P.Druce & Given		Nationally Endangered	A (3)	Yes			≤ 1 ha		Low	Medium	DPR, DPS, DPT, NR, NStr, PF, RR, TL	EF, PD, RR, Sp	TL = H, I, S, T?: Maniototo Plain, near Naseby / Lake Waiholo / Tokomairiro ED. ACNOs: H WELT SP050121/A ; I WELT SP050121/B ; S AK 4553 ; T? WELT SP050119
<i>Crassula peduncularis</i> (Sm.) F.Meigen	shore stonecrop	Nationally Critical	A (3)	Yes			≤ 1 ha		Low	Low	DPS, DPT, NStr, RR	EF, RR, SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Crassula ruamahanga</i> A.P.Druce emend de Lange & Heenan		Naturally Uncommon	A (3)				≤ 1 ha		Low	Low	DPR, DPS, DPT, PF, Sp	DP, Sp	
<i>Daucus glochidiatus</i> (Labill.) Fisch., C.A.Mey. & Avé-Lall.	New Zealand carrot	Nationally Vulnerable	A (3)				≤ 1 ha		High	High	OL	EF, SO	
<i>Epilobium brevipes</i> Hook.f.		Naturally Uncommon	A (3)				≤ 1 ha		Low	Low	DPR, DPS, DPT, NR, OL		
<i>Epilobium pictum</i> Petrie	grassland willowherb	Nationally Critical	A (1)	Yes		≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, NStr, OL, PF, TL	DP, Sp	TL = L, ISL, NT: Lowburn Creek, near Cromwell / Mountain valleys of Central Otago / Pisa ED. ACNOs: L WELT SP041030 ; ISL AK 5678
<i>Eryngium vesiculosum</i> Labill.	sea holly	Declining	A (3)				≤ 1 ha		High	High	CI, NR, OL	DP, RR, SO, Sp	
<i>Euchiton paludosus</i> (Petrie) Holub		Data Deficient	A (3)				≤ 1 ha		Low	Low	DPR, DPS, DPT, PF, RR, Sp	Sp	
<i>Euphorbia glauca</i> G.Forst.	shore spurge	Nationally Vulnerable	A (3)				≤ 1 ha		High	High	CI, PF, RF, RR	CD	
<i>Ficinia spiralis</i> (A.Rich.) Muasya & de Lange	pingao	Declining	B (1)			250–1000 mature individuals			High	High	CI, PF, RF, RR	PD, RR	
<i>Gastrodia cooperae</i> Lehnebach & J.R.Rolfe		Nationally Critical	A (3)				≤ 1 ha		Low	Low	DPR, DPS, DPT, NR, OL	DP	
<i>Geranium retrorsum</i> L'Hér. ex DC.		Nationally Vulnerable	A (3)				≤ 1 ha		Low	Medium	DPR, DPS, DPT, NR, Sp	DP, SO	
<i>Geranium sessiliflorum</i> var. <i>arenarium</i> G.Simpson & J.S.Thomson		Declining	A (3)				≤ 1 ha		High	High	CI, PF, RR	CD, DP, RR	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Hypericum rubicundulum</i> Heenan		Nationally Endangered	A (3)	Yes			≤ 1 ha		Medium	Medium	DPR, DPS, DPT, NR, NStr, PF, RR, Sp	DP, RR	
<i>Hypolepis amaurorachis</i> (Kunze) Hook.		Naturally Uncommon	A (1)			≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, Rel, Sp	DP, EF, SO, Sp	
<i>Juncus pauciflorus</i> R.Br.		Nationally Vulnerable	A (1)			≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, Sp	DP, SO, Sp	
<i>Lachnagrostis ammobia</i> Edgar		Declining	A (3)				≤ 1 ha		Low	Low	CI, DPR, DPS, DPT, NR, PF, RR	DP, Sp	
<i>Lachnagrostis billardierei</i> (R.Br.) Trin. subsp. <i>billardierei</i>		Not Threatened	A (1)			< 250 mature individuals			Low	Medium	CI, DPR, DPS, DPT, RR, Sp	SO	
<i>Lastreopsis velutina</i> (A.Rich.) Tindale		Not Threatened	A (1)			< 250 mature individuals			Low	High	DPS, DPT, NR, OL		
<i>Lepidium juvencum</i> Heenan & de Lange	scurvy grass	Nationally Critical	A (3)	Yes			≤ 1 ha		Medium	High	DPR, NR, NStr, PF, RR, TL	CD, DP, RR	TL = H, I: Long Beach, Purakaunui. ACNOs: H CHR 609785 B ; I CHR 609785 A
<i>Lepidium kirkii</i> Petrie	salt-pan cress	Nationally Critical	A (3)	Yes	Yes		≤ 1 ha		High	High	CD, NStr, PF, RE, RF, RR, TL	CD, EF	RE = found only in Central Otago. TL = H, S, L?: Maniototo plain below Gimmerburn farms. ACNOs: H W; S AK 4477 , WELT SP030096 , WELT SP030099 ; L? WELT SP030098

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Lepidium sisymbrioides</i> Hook.f.	peppercress	Nationally Critical	A (1)	Yes		≤ 250 mature individuals			High	High	NR, NStr, PF, RF, RR, TL	DP	TL = H, S, ISN (putative): Kawarau River, near Gibbston / 2 miles west of Victoria Bridge, Kawarau River / Kawarau River, near Nevis Bluff / Kawarau River, west of Cromwell. ACNOs: H W; S WELT SP028588 , WELT SP028587 , WELT SP028592/A , WELT SP028592/B , WELT SP028593 ; ISN (putative) WELT SP028596 , WELT SP028602
<i>Lepidium solandri</i> Kirk	Maniototo peppercress	Nationally Critical	A (1)	Yes		≤ 250 mature individuals			Medium	High	DPT, NR, NStr, PF, RF, RR, TL	RF, Sp	TL = H, S, L: Maniototo Plain / Alexandra South. ACNOs: H Uni. Zurich; L WELT SP028621 ; S AK 4488 , AK 209545
<i>Leptinella conjuncta</i> Heenan		Nationally Critical	A (3)	Yes			≤ 1 ha		Medium	High	DPR, NR, NStr, PF, RF, RR, TL	Sp	TL = H: Pisa Flat, Clutha/Mata-au River. ACNO: H CHR 592259
<i>Libertia peregrinans</i> Cockayne & Allan		Nationally Vulnerable	A (3)				≤ 1 ha		Low	High	DPT, PF, RR	DP, PD	
<i>Lobelia arenaria</i> (Hook.f.) Heenan & de Lange		Naturally Uncommon	A (3)				≤ 1 ha		Medium	Low	CI, DPS, DPT, PF, RR, Sp	DP	
<i>Luzula decipiens</i> Edgar	wood-rush	Not Threatened	A (1)			< 250 mature individuals			Low	Low	CI, DPR, DPS, DPT, NR, OL		
<i>Mazus arenarius</i> Heenan, P.N.Johnson & C.J.Webb		Declining	A (3)				≤ 1 ha		High	High	CI, DPT, NR, PF, RR, TL	DP, RR, Sp	TL = H, I: False Islet, southeast Otago / Tahakopa ED. ACNOs: H CHR 494723 CHR 494723 B ; I AK 229880 , MO 102097055, AD 99646366, OTA 061154, CHR 532707 , WELT SP080009 , K

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Mazus novaezeelandiae</i> subsp. <i>impolitus</i> Heenan f. <i>impolitus</i>		Nationally Vulnerable	A (3)	Yes			≤ 1 ha		High	High	NR, NStr, OL, PF	DP, RR	
<i>Muehlenbeckia ephedroides</i> Hook.f.		Declining	A (1)			≤ 250 mature individuals			High	Medium	DPR, PF, RF, RR	DP, Sp	
<i>Myosotis albosericca</i> Hook.f.		Nationally Critical	A (3)	Yes	Yes		≤ 1 ha		High	High	NS, NStr, OL, RE, St, TL	OL	RE = one known location from Central Otago, southern Dunstan Range. TL = H: Dunstan Gorge on the Clutha/Mata-au River. ACNO: H K?
<i>Myosotis cheesemanii</i> Petrie	Forget-me-not	Nationally Critical	A (3)	Yes			≤ 1 ha		High	Medium	DPR, DPS, DPT, NS, NStr, RR, St, TL	DP, RR, Sp	TL = H, L, ISL, TF: Mount Pisa Range, north of Cromwell. ACNOs: L WELT SP002696/A ; ISL AK 7447 , SP002696/B ; TF CHR 97407 .
<i>Myosotis glabrescens</i> L.B.Moore	Forget-me-not	Nationally Critical	A (3)	Yes	Yes		≤ 1 ha		Low	Medium	DPR, DPS, DPT, NS, NStr, RE, RR, Sp, St, TL		RE = known only from one site and a few gatherings made in the Hector Range, east of Lake Whakatipu. TL = H: Tapuae-o-Uenuku Hector Mountains, east of Lake Whakatipu. ACNO: H WELT SP004736

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Myosotis oreophila</i> Petrie		Nationally Critical	A (3)	Yes	Yes		≤ 1 ha		High	Medium	DPR, DPS, DPT, NS, NStr, RE, RR, St, TL	EF, St, Sp	RE = known only from Central Otago. Although localised to one or a few known populations, recent research suggests it could now be known from one site only (Stanley, pers. comm, cited in NZPCN website, 2023). TL = H, I: Mount Ida, near Naseby. ACNOs: H WELT SP002393/A ; I WELT SP002393/B
<i>Myosotis spatulata</i> G.Forst.		Declining	A (1)			≤ 250 mature individuals			Low	Low	DPS, DPT, OL	DP, EF, Sp	
<i>Myosotis tenericaulis</i> Petrie		Declining	A (3)	Yes			≤ 1 ha		Low	Medium	DPR, DPT, NStr, PF, RR, Sp, TL	DP, Sp	TL = L, ISL: edge of Inch Clutha, near Romahapa, Clutha County / Inch Clutha, Tokomairiro ED. ACNOs: L WELT SP002689/A , WELT SP002689/B ; ISL CHR 295327
<i>Myosotis umbrosa</i> Meudt, Prebble & Thorsen		Nationally Critical	A (1)	Yes	Yes	≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, NStr, PF, RE, Sp, TL	DP, RR, Sp	RE = known only from the Rock and Pillar and Lammerlaw Ranges. TL = H: Rock and Pillar Range. ACNO: H WELT SP089905
<i>Myosotis venticola</i> Meudt & Prebble		Nationally Critical	A (3)	Yes		≤ 1 ha			Low	Low	DPR, DPS, DPT, NR, NS, NStr, Sp, TL	DPR, DPS, DPT, RR, Sp	TL = H: Dunstan, Jan. 1994, A.P. Druce s.n. (CHR 624106)
<i>Ourisia modesta</i> Diels		Nationally Endangered	A (3)	Yes			≤ 1 ha		Low	Medium	DPT, NStr, OL	DP, PD, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Pentapogon youngii</i> (Hook.f.) de Lange & L.M.H.Schmid		Naturally Uncommon	A (1)			≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, NR, PF, Sp, TL	DP, Sp	Previous Name and Authority: <i>Deyeuxia youngii</i> (Hook.f.) Buchanan TL = H, I: Swampy Hill, near Ōtepoti Dunedin / Otago Coast ER. ACNOs: H W 29192; I AK 1508 , WELT SP069693 , WELT SP069694 , WELT SP069696 .
<i>Pimelea lyallii</i> Hook.f.		Declining	A (1)			≤ 250 mature individuals			High	High	CI, DPT, PF, RF, RR	CD, DP, RR, Sp	
<i>Pittosporum obcordatum</i> Raoul	heart-leaved kohuhu	Nationally Vulnerable	A (1)			≤ 250 mature individuals			High	High	NR, PF, RF, RR	PD, RF	
<i>Pittosporum patulum</i> Hook.f.	pitpat	Nationally Endangered	A (1)			≤ 250 mature individuals			High	High	NR, Sp	CD, PD, RF, Sp	
<i>Pterostylis cernua</i> D.L.Jones, Molloy & M.A.Clem.	drooping greenhood orchid	Naturally Uncommon	A (3)				≤ 1 ha		Medium	Low	DPR, DPS, DPT, NR, NS, OL, Sp		
<i>Puccinellia rariflorens</i> Edgar	saltgrass	Nationally Critical	A (3)	Yes			≤ 1 ha		Medium	High	CD, NR, NStr, PF, RR, TL	CD, DP, RR	TL = H: Alexandra, Conroys Road. ACNO: H CHR 402693
<i>Puccinellia walkeri</i> (Kirk) Allan		Naturally Uncommon	A (3)				≤ 1 ha		Low	Low	CI, DPR, DPS, DPT, PF, RR, Sp	DP, Sp	
<i>Ranunculus brevis</i> Garn.-Jones	aquatic buttercup	Nationally Endangered	A (3)				≤ 1 ha		Low	Low	DPS, NR, NS, RR, St	DP, RR, Sp	
<i>Ranunculus macropus</i> Hook.f.		Declining	A (3)				≤ 1 ha		Low	Medium	CR, DPR, DPS, DPT, PF, RF		
<i>Ranunculus recens</i> Kirk		Nationally Vulnerable	A (3)	Yes			≤ 1 ha		High	High	NStr, PF, RR, Sp, TL	CD, RR, Sp, St	TL = H, S, L: coastal sands near Ōtepoti Dunedin to Fortrose, Otago. ACNOs: H W; S WELT SP000361/B ; L WELT SP000361/A

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Rytidosperma horrens</i> Connor & Molloy		Nationally Critical	A (3)				≤ 1 ha		Low	Low	DPS, DPT, RR	DPT, RR	
<i>Rytidosperma telmaticum</i> Connor & Molloy		Nationally Vulnerable	A (3)				≤ 1 ha		Low	Low	DPR, DPS, DPT, NR, RR	DP, RR	
<i>Scleranthus biflorus</i> (J.R.Forst. & G.Forst.) Hook.f.		Not Threatened	A (3)				≤ 1 ha		Medium	High	CI, DPR, NR, OL, PF	SO	
<i>Simplicia felix</i> de Lange, J.R.Rolfe, Smissen & Ogle		Nationally Critical	A (3)				≤ 1 ha		Medium	Medium	DPR, DPS, DPT, NR, OL, PE	DP, RR	
<i>Simplicia laxa</i> Kirk		Nationally Critical	A (1)	Yes		≤ 250 mature individuals			Low	Low	DPS, DPT, NR, NStr, PF, RF, Sp, TL	CD, RR, Sp	TL = L, ISL, ISN: Waikouaiti, Otago / northeast from Waikouaiti, Otago east coast / Waikouaiti, Deep Stream / Rock and Pillar Road [Old Dunstan Road], near Deep Stream Hotel, not far from roadside. ACNOs: L WELT SP043017 , WELT SP043021 ; ISL AK 1370 , AK 1371 , AK 1372 ; ISN WELT SP043019
<i>Solanum aviculare</i> G.Forst. var. <i>aviculare</i>	poroporo	Nationally Endangered	A (1)			≤ 250 mature individuals			Low	Low	DPR, DPS, DPT, NR, SO, Sp	PF, SO	
<i>Solenogyne christensenii</i> (Petrie) de Lange, Jian Wang ter & Barkla, comb. nov.		Nationally Critical	A (3)	Yes	Yes		≤ 1 ha		High	High	NS, NStr, OL, RE	DP, EF	RE = The one location this taxon was known outside Otago is believed extinct. The remaining known habitat is the upper Clutha Valley, Otago. Previous Name and Authority: <i>Abrotanella christensenii</i> Petrie

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Critical continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Sophora chathamica</i> Cockayne		Not Threatened	A (1)			≤ 250 mature individuals			High	Low	DPR, DPS, DPT, NR, OL		
<i>Sphaeropteris medullaris</i> (G.Forst.) Bernh.		Not Threatened	A (1)			≤ 250 mature individuals			Medium	Medium	Sp	So	
<i>Triglochin palustris</i> L.	marsh arrow-grass	Nationally Endangered	A (3)	Yes			≤ 1 ha		Medium	Low	DPS, DPT, NR, NStr, RR	DP, RR, SO, Sp	
<i>Trithuria brevistyla</i> (K.A.Ford) de Lange & Mosyakin	hydatella	Nationally Vulnerable	A (3)	Yes			≤ 1 ha		Low	Low	DPR, DPS, DPT, NR, NS, NStr, RR	DP, PD	Previous Name and Authority: <i>Trithuria</i> aff. <i>inconspicua</i> (CHR 502359; South Island)
<i>Veronica lilliputiana</i> Stearn		Declining	A (3)				≤ 1 ha		Low	High	DPT, RR, Sp	DP	
TAXONOMICALLY UNRESOLVED (6)													
<i>Acaena</i> aff. <i>rorida</i> (OTA 59561; Pool Burn)	bidibidi	Nationally Critical	A (3)	Yes	Yes		≤ 10 ha	Decline: 10–30%	Medium	Medium	De, DPR, DPS, DPT, NStr, PF, RE, RR, Sp	DP, OL	RE = known Ida Valley and Macraes
<i>Craspedia</i> (gg) (CHR 472168; Mararoa)		Nationally Critical	A (1)	Yes		≤ 250 mature individuals			Medium	Medium	DPS, DPT, DPR, OL, Sp	DP, OL	
<i>Craspedia</i> (y) (CHR 516260; Cape Saunders)		Nationally Critical	A (3)	Yes	Yes		≤ 1 ha		Low	Medium	DPS, DPT, NStr, OL, RE		Recent surveys in 2024 have found ca. 250 mature individuals
<i>Melicytus</i> (a) (CHR 355077; Matiri Range)		Nationally Endangered	A (1)			≤ 250 mature individuals			Low	Medium	DPR, DPS, DPT, NR, OL	CD, DP, RF, Sp	OL = Only one plant known in Otago, from the Upper Long Burn, Eyre Mountains. This record from >20 years ago
<i>Melicytus</i> aff. <i>crassifolius</i> (b) (CHR 616706; Cape Saunders)		Nationally Critical	A (2)	Yes	Yes	≤ 2 subpopulations, ≤ 200 mature individuals			High	Low	DPR, DPT, RE, RR	DPR, DPT, RR	
<i>Raoulia</i> aff. <i>hookeri</i> (a) (AK 239529; "coast")		Declining	A (3)				≤ 1 ha		Low	Low	CI, DPR, DPS, DPT, RR, Sp	CI, CD, DPT	

Conservation status of indigenous vascular plants in Otago

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural State; NStr = National Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure?Overseas; TO = Threatened Overseas' TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation' PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype, I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isoneotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Regionally Endangered (77)

Criteria for Regionally Endangered:

A – small population (natural or unnatural) that has a low to high ongoing or predicted decline

A(1) 250–1000 mature individuals, predicted decline 10–50%

A(2) ≤ 5 subpopulations, ≤ 300 mature individuals in the largest subpopulation, predicted decline 10–50%

A(3) Total area of occupancy ≤ 10 ha (0.1 km²), predicted decline 10–50%

B – small stable population (unnatural)

B(1) 250–1000 mature individuals, stable population

B(2) ≤ 5 subpopulations, ≤ 300 mature individuals in the largest subpopulation, stable population

B(3) Total area of occupancy ≤ 10 ha (0.1 km²), stable population

C – moderate population and high ongoing or predicted decline

C(1) 1000–5000 mature individuals, predicted decline 50–70%

C(2) ≤ 15 subpopulations, ≤ 500 mature individuals in the largest subpopulation, predicted decline 50–70%

C(3) Total area of occupancy ≤ 100 ha (1 km²), predicted decline 50–70%

Table 3.3.2: Regionally Endangered indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY ENDANGERED (77)													
<i>TAXONOMICALLY DETERMINATE (74)</i>													
<i>Acaena microphylla</i> var. <i>pauciglochidiata</i> Bitter	bidibidi	Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Low	Low	CI, DPS, DPT, NR, NStr, PF, RR, Sp	DP, RR, Sp	
<i>Acaena pallida</i> (Kirk) Allan	sand bidibid	Declining	B (3)	Yes			≤ 10 ha	Stable: ±10%	Medium	Medium	CI, NStr, PF, RR, St	DP, RR, SO	
<i>Achnatherum petriei</i> (Buchanan) S.W.L.Jacobs & J.Everett		Nationally Vulnerable	A (1)	Yes		250–1000 mature individuals		Decline: 10–30%	Low	Low	DPR, DPS, DPT, NR, NStr, RR	DP, EF, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Anisotome lyallii</i> Hook.f.	Lyall's carrot	Declining	B (3)				≤ 10 ha		Medium	Medium	CI, PF, RR, St	DPS, DPT, RR	
<i>Atriplex buchananii</i> (Kirk) Cheeseman		Nationally Vulnerable	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NS, PF, RR	Sp, CR, DPT, PD, RR	
<i>Bolboschoenus caldwellii</i> (V.J.Cook) Soják	Caldwell's clubrush	Not Threatened	B (3)				≤ 10 ha	Stable: ±10%	Low	Medium	CI, DPS, DPT, NR, RR	SO	
<i>Brachyglottis sciadophila</i> (Raoul) B.Nord.	climbing groundsel	Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Medium	DPT, NR, NStr, PF, Sp	DP	
<i>Cardamine thalassica</i> Heenan	cress	Nationally Endangered	B (1)	Yes		250–1000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, RR, Sp, TL	DP	TL = H: Hawkdun Range, Rambling Stream. ACNO: H CHR 619275
<i>Carex applanata</i> Thorsen & de Lange		Naturally Uncommon	B (3)	Yes	Yes		≤ 10 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RE, RR, Sp, St	DP, RR	RE = only known from the Old Woman, Old Man, Umbrella, Garvie, Pisa and The Remarkables Range. TL = H: Central Otago ER, Old Man ED, Old Woman Range. ACNO: H AK 302066
<i>Carex capillacea</i> Boott	sedge	Nationally Vulnerable	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, PF, RR	DP, SO, Sp	
<i>Carex decurtata</i> Cheeseman	sedge	Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	High	Medium	DPT, NR, NStr, PF, RR, Sp	Sp	
<i>Carex edgariae</i> Hamlin	Edgar's sedge	Naturally Uncommon	B (3)	Yes			≤ 10 ha	Stable: ±10%	Low	Medium	De, DPR, DPS, DPT, NR, NS, NStr, Sp, St, TL	DP, Sp	TL = H: Nevis Valley, east of Tapuae-o-Uenuku Hector Mountains. ACNOs: H WELT SP002007/A and WELT SP002007/B
<i>Carex kaloides</i> Petrie	sedge	Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Low	Medium	DPT, NR, NStr, PD, Sp, TL	DP, Sp	TL = H, L, T: Carrick Range. ACNOs: H WELT SP002007/B ; L WELT SP021726/A ; T WELT SP021726/B

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Carex litorosa</i> L.H.Bailey	sea sedge	Nationally Vulnerable	B (3)	Yes			≤ 10 ha	Stable: ±10%	Medium	Medium	CI, DPS, DPT, NStr, RR	DP, RR	
<i>Carex rubicunda</i> Petrie		Declining	B (3)	Yes			≤ 10 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR	DP, EF, RR	
<i>Carex subtilis</i> K.A.Ford	handsome hook sedge	Data Deficient	B (3)	Yes			≤ 10 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, NStr, PF, Sp, TL	DP, SO, Sp	TL = I: Blacks, Ophir, Manuherikia Valley. ACNO: I WELT SP001761
<i>Carex tenuiculmis</i> (Petrie) Heenan & de Lange	red-leaved swamp sedge	Declining	B (3)	Yes			≤ 10 ha	Stable: ±10%	Medium	Medium	DPT, NStr, RR, Sp, TL	DP, Sp	TL = S (possible): Lammerlaw Range. ACNOs: S (possible) WELT SP021591 , WELT SP021592
<i>Carmichaelia kirkii</i> Hook.f.	climbing broom	Nationally Vulnerable	A (1)	Yes		250–1000 mature individuals		Decline: 10–30%	Medium	Medium	DPS, DPT, NR, NStr, PF, RF, Sp, TL	DP, RF	TL = H, S, L, ISL: Cardrona Valley / Otepopo. ACNOs: H K; L CHR 45771 A ; S WELT SP026733 ; ISL WELT SP026731 , WELT SP026732 , WELT SP026737 , CHR 45771 C , CHR 45771 D , CHR 213042 A , CHR 213042 B , WELT SP079537
<i>Connorochloa tenuis</i> (Buchanan) Barkworth, S.W.L.Jacobs & H.Q.Zhang	Prostrate bluegrass	Declining	A (1)	Yes		250–1000 mature individuals		Decline: 10–30%	Low	Low	DPR, DPS, DPT, NS, PF, Sp		
<i>Coprosma acerosa</i> A.Cunn.	sand coprosma	Declining	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPT, PF, RF, RR	PD	
<i>Coprosma brunnea</i> (Kirk) Cockayne ex Cheeseman	coprosma	Declining	A (1)	Yes		250–1000 mature individuals		Decline: 10–30%	Medium	Medium	DPT, NStr, PF, RF, RR, Sp	DPS, DPT, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Coprosma wallii</i> Petrie in Cheeseman	Wall's coprosma	Declining	A (1)			250–1000 mature individuals		Decline: 10–30%	Medium	High	PF, RF, Sp	CD, RF	
<i>Craspedia uniflora</i> G.Forst. var. <i>uniflora</i>		Nationally Endangered					≤ 10 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, PF	DPR, DPS, DPT, PF	
<i>Crassula mataikona</i> A.P.Druce		Naturally Uncommon	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Low	DPR, DPS, DPT, EF, NR, NStr, PF, RR, Sp	DP, Sp	
<i>Drosera binata</i> Labill.		Not Threatened	B (3)				≤ 10 ha	Stable: ±10%	Low	Medium	DPS, DPT, RR, Sp	SO	
<i>Epilobium angustum</i> (Cheeseman) P.H.Raven & Engelhorn		Declining	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NR, PF, RR, Sp	DP, RR	
<i>Euchiton ensifer</i> (D.G.Drury) Holub		Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, NStr, PD, PF, RR, Sp	DP, PD, RR, Sp	
<i>Gentianella lineata</i> (Kirk) T.N.Ho & S.W.Liu		Naturally Uncommon	B (3)	Yes			≤ 10 ha	Stable: ±10%	High	Medium	NStr, RR, Sp, St	PD, RR, Sp	
<i>Gentianella saxosa</i> (G.Forst.) Holub		Naturally Uncommon	B (3)				≤ 10 ha	Stable: ±10%	Medium	Medium	DPS, DPT, PF, RR, Sp, St	DP, RR	
<i>Gingidia enysii</i> var. <i>enysii</i> (Kirk) J.W.Dawson		Nationally Endangered	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPT, Sp, NR	DP, RR	
<i>Hymenophyllum armstrongii</i> (Baker) Kirk	Armstrong's fern	Not Threatened	B (3)				≤ 10 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, OL		
<i>Hymenophyllum rufescens</i> Kirk		Not Threatened	B (3)				≤ 10 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, OL		
<i>Isolepis basilaris</i> Hook.f.	Pygmy clubrush	Naturally Uncommon	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Medium	DPR, NStr, PF, RR	EF, RR, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Juncus kraussii</i> subsp. <i>australiensis</i> (Buchenau) Snogerup	sea rush	Not Threatened	B (3)				≤ 10 ha	Stable: ±10%	High	Medium	OL, RR, NR	SO	
<i>Korthalsella clavata</i> (Kirk) Cheeseman		Declining	B (3)				≤ 10 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, PF, Sp	DP	
<i>Lagenophora barkeri</i> Kirk		Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NStr, PF, RR, Sp	DP, Sp	
<i>Lepidium crassum</i> Heenan & de Lange	thick-leaved scurvy grass	Nationally Endangered	B (3)	Yes	Yes		≤ 10 ha	Stable: ±10%	High	High	CD, DPR, NStr, PF, RE, RR, TL	CD, DP, EF, RR	RE = Once found in the Waitaki Valley, now only found in Otago, most common on Otago Peninsula, but occurs in small populations from near Kakanui to The Nuggets. TL = H, I: Otago Peninsula, Aramoana, Mole. ACNO: H CHR 609777 A
<i>Lepidothamnus intermedius</i> (Kirk) Quinn		Not Threatened	B (3)				≤ 10 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, OL, Sp		
<i>Leptinella maniototo</i> (Petrie) D.G.Lloyd & C.J.Webb		Declining	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, PF, RR, TL		TL = H: Maniototo Plains. ACNO: H WELT SP057515
<i>Leptinella pusilla</i> Hook.f.		Declining	A (3)				≤ 10 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, PF, Sp		
<i>Leucopogon nanum</i> M.I.Dawson & Heenan		Declining	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, NR, RR, Sp	DPR, DPS, DPT, Sp	
<i>Lobelia ionantha</i> Heenan		Declining	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, PF, RR, Sp	DP	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Luzula celata</i> Edgar	dwarf wood-rush	Nationally Vulnerable	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	CD, DPS, DPT, PF, RR, Sp	DP, RR	
<i>Luzula rufa</i> var. <i>albicomans</i> Edgar	wood-rush	Not Threatened	C (3)	Yes			≤ 100 ha	Decline: 50–70%	High	High	NStr, RR		
<i>Luzula traversii</i> var. <i>tenuis</i> Edgar	wood-rush	Naturally Uncommon	A (1)	Yes	Yes	250–1000 mature individuals		Decline: 10–30%	Low	Low	DPR, DPS, DPT, NStr, RE, RF, Sp, TL	DP, RR	RE = Central Otago endemic found on rock, from 200–450 m asl. TL = H: Cromwell Gorge. ACNO: H CHR 113666
<i>Melicytus flexuosus</i> Molloy & A.P.Druce		Nationally Vulnerable	B (1)	Yes		250–1000 mature individuals		Stable: ±10%	Medium	Medium	DPR, NStr, PF, RF, RR	CD, RF	
<i>Montia angustifolia</i> Heenan		Declining	B (3)	Yes			≤ 10 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, PF, RR	DP, RR, Sp	
<i>Montigena novae-zelandiae</i> (Hook.f.) Heenan	scree pea	Nationally Vulnerable	A (1)			250–1000 mature individuals		Decline: 10–30%	Medium	Medium	DPS, DPT, NR, PF, RR, TL	RF, Sp	TL = L, ISL: Mount Ida, north of Naseby. ACNOs: L CHR 48114 ; ISL CHR 48139
<i>Myosotis antarctica</i> subsp. <i>trillii</i> Kirk		Naturally Uncommon	A (1)	Yes		250–1000 mature individuals		Decline: 10–30%	High	Medium	CI, DPS, NStr, PF, RR, TL	Sp	Previous Name and Authority: <i>Myosotis pygmaea</i> Colenso
<i>Myosotis brevis</i> de Lange & Barkla		Nationally Vulnerable	A (3)	Yes			≤ 10 ha	Decline: 10–30%	High	Medium	EF, NStr, PF, RR, Sp	EF, Sp	
<i>Myosotis glauca</i> (G.Simpson & J.S.Thomson) de Lange & Barkla	Kaimanawa forget-me-not	Nationally Vulnerable	A (3)	Yes			≤ 10 ha	Decline: 10–30%	High	Medium	NR, NStr, PF, Sp, TL	DP, Sp	TL = H, T?: base of Mount Ida. ACNOs: H: CHR 75722 ; T? CHR 550036

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Myosotis hikuwai</i> Meudt, Prebble & G.M.Rogers		Nationally Endangered	A (3)	Yes	Yes		≤ 10 ha	Decline: 30–50%			DPT, EF, NStr, OL, RE, TL	DPS, DPT, , OL	RE = one known location from the Clutha/Mata-au River, near Wānaka. TL = H: Clutha/Mata-au River. ACNO: H WELT SP0108906 Previous Name and Authority: <i>Myosotis</i> aff. <i>glauca</i> (a) (WELT SP104520; "Mata-Au")
<i>Myosotis rakiura</i> L.B.Moore		Naturally Uncommon	A (3)				≤ 10 ha	Decline: 10–30%	Low	High	DPT, NR, PF, RR	RR, Sp	
<i>Myosotis saxatilis</i> Petrie		Naturally Uncommon	B (3)	Yes			≤ 10 ha	Stable: ±10%	Low	Low	DPS, DPT, NR, NStr, Sp	Sp, DPS, DPT	
<i>Myosotis uniflora</i> Hook.f.		Nationally Vulnerable	A (3)				≤ 10 ha	Decline: 10–30%	Medium	High	CD, DPT, OL	DP, Sp	
<i>Myosurus minimus</i> subsp. <i>novae-zelandiae</i> (W.R.B.Oliv.) Garn.-Jones	New Zealand mousetail	Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	High	High	EF, NR, NStr, PF, RR	DP, EF, RR, Sp	
<i>Olearia hectorii</i> Hook.f.	Hector's tree daisy	Nationally Endangered	A (1)	Yes		250–1000 mature individuals		Decline: 10–30%	High	High	CD, NStr, RF, TL	CD, CR, DPT, PD, PF, RF	TL = H: Otago Lakes District. ACNO: H K?
<i>Oxybasis ambigua</i> (R.Br.) de Lange & Mosyakin		Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Medium	CI, DPS, DPT, NStr, PF, RR	DP, PD, SO	Previous Name and Authority: <i>Oxybasis glauca</i> subsp. <i>ambigua</i> (R.Br.) Mosyakin
<i>Pachycladon cheesemanii</i> Heenan & A.D.Mitch.	dryland cress	Nationally Endangered	C (1)	Yes		1000–5000 mature individuals		Decline: 50–70%	Medium	Low	DPS, NStr, PF, RF	DP, RR, Sp	
<i>Pimelea poppelwellii</i> Petrie		Naturally Uncommon	B (1)	Yes		250–1000 mature individuals		Stable: ±10%	Low	Low	DPS, DPT, NR, NStr, RR, Sp, TL	DP, RR, Sp, TL	TL = S: Symmetry Peaks, Eyre Mountains, near Lake Whakatipu. ACNO: S WELT SP044228

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Pimelea prostrata</i> subsp. <i>ventosa</i> C.J.Burrows		Declining	A (3)				≤ 10 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, RR	Sp	
<i>Pimelea pseudolyallii</i> Allan		Naturally Uncommon	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NR, NStr, RR	DP, Sp	
<i>Pimelea sericeovillosa</i> subsp. <i>pulvinaris</i> (C.J.Burrows) C.J.Burrows		Nationally Vulnerable	A (3)	Yes			≤ 10 ha	Decline: 30–50%	High	High	NR, NStr, PF, RF, RR, CD	DP	
<i>Ranunculus simulans</i> Garn.-Jones		Data Deficient	B (3)				≤ 10 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, OL, Sp	Sp	
<i>Ranunculus ternatifolius</i> Kirk		Declining	B (3)	Yes			≤ 10 ha	Stable: ±10%	Medium	Medium	NStr, PF, RR, TL	DP, Sp	TL = H?, S: Catlins River. ACNOs: H W?; S WELT SP000335 , WELT SP000341 , WELT SP000343 , WELT SP026422
<i>Raoulia monroi</i> Hook.f.	fan-leaved mat daisy	Declining	A (3)				≤ 10 ha	Decline: 30–50%	High	Medium	CD, DPT, NR, PF, RR	DPT, PD, Sp, RR	
<i>Ruppia megacarpa</i> R.Mason		Naturally Uncommon	B (3)				≤ 10 ha	Stable: ±10%	Low	Low	CI, DPR, DPS, DPT, PF, RR, Sp, EF	RR, SO	
<i>Rytidosperma thomsonii</i> (Buchanan) Connor & Edgar		Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NR, NStr, PF, Sp, TL	DP	TL = H, I (possible): Mount St. Bathans. ACNOs: H WELT SP059624 ; I (possible) WELT SP068111/A , WELT SP068111/B
<i>Senecio dunedinensis</i> Belcher		Nationally Endangered	A (1)	Yes		250–1000 mature individuals		Decline: 10–30%	Low	Low	DPS, DPT, NR, NStr, PF, RF, Sp, TL	DP, EF, Sp	TL = H?, T?: hills near Ōtepoti Dunedin. ACNOs: H? W; T? WELT SP031853 , WELT SP031627
<i>Sonchus kirkii</i> Hamlin	pūhā	Declining	A (1)			250–1000 mature individuals		Decline: 10–30%	Medium	Low	CI, DPS, DPT, PF, RR, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Endangered continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Tetrachondra hamiltonii</i> Petrie ex Oliv.		Nationally Vulnerable	B (3)	Yes			≤ 10 ha	Stable: ±10%	Low	Medium	DPT, NStr, PD, RR	DP, Sp	
<i>Teucrium parvifolium</i> (Hook.f.) Kattari & Salmaki	native verbena	Declining	A (1)			250–1000 mature individuals		Decline: 10–30%	Medium	Medium	DPS, DPT, NR, PF, RF, Sp	Sp	Previous Name and Authority: <i>Teucrium parvifolium</i> Hook.f.
<i>Urtica perconfusa</i> Grosse-Veldmann & Weigend	swamp nettle	Naturally Uncommon	B (3)				≤ 10 ha	Stable: ±10%	Medium	Medium	DPS, DPT, PF, RR, Sp, St	Sp	
<i>Veronica cupressoides</i> Hook.f.	whipcord hebe	Nationally Endangered	C (1)	Yes		1000–5000 mature individuals		Decline: 50–70%	Medium	Medium	NR, NStr, PF, RF	DP, RF	
<i>Wurmbea novae-zelandiae</i> (Hook.f. ex Kirk) Lekhak, Survesw. & S.R.Yadav		Nationally Endangered	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Low	DPS, NStr, PF, Sp	DP, RR	
TAXONOMICALLY UNRESOLVED (3)													
<i>Euchiton</i> aff. <i>paludosus</i> (a) (CHR 116609; "green")		Naturally Uncommon	A (3)				≤ 10 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, RR, Sp	DPR, DPS, DPT	
<i>Gratiola</i> aff. <i>concinna</i> (AK 251855; South Island)		Declining	A (3)	Yes			≤ 10 ha	Decline: 10–30%	Medium	Medium	DPS, NStr, PF, RR, Sp	DPR, DPS, DPT, RR, Sp	
<i>Sonchus</i> aff. <i>novae-zelandiae</i> (a) (CHR 517718; "grassland")		Nationally Endangered	B (3)	Yes			≤ 100 ha	Stable: ±10%	Low	Low	DPS, DPT, NStr, Sp	Sp, DPS, DPT, EF	Previous Name and Authority: <i>Sonchus novae-zelandiae</i> (Hook.f.) Garn.-Jones

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural State; NStr = National Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure?Overseas; TO = Threatened Overseas; TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation; PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype, I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa

Regionally Vulnerable (73)

Criteria for Regionally Vulnerable:

A – small, increasing population (unnatural)

- A(1) 250–1000 mature individuals, predicted increase > 10%
- A(2) ≤ 5 subpopulations, ≤ 300 mature individuals in the largest subpopulation, predicted increase > 10%
- A(3) Total area of occupancy ≤ 10 ha (0.1 km²), predicted increase > 10%

B – moderate, stable population (unnatural)

- B(1) 1000–5000 mature individuals, stable population
- B(2) ≤ 15 subpopulations, ≤ 500 mature individuals in the largest subpopulation, stable population
- B(3) Total area of occupancy ≤ 100 ha (1 km²), stable population

C – moderate population, with population trend that is declining

- C(1) 1000–5000 mature individuals, predicted decline 10–50%
- C(2) ≤ 15 subpopulations, ≤ 500 mature individuals in the largest subpopulation, predicted decline 10–50%
- C(3) Total area of occupancy ≤ 100 ha (1 km²), predicted decline 10–50%

D – moderate to large population and moderate to high ongoing or predicted decline

- D(1) 5000–20,000 mature individuals, predicted decline 30–70%
- D(2) ≤ 15 subpopulations, ≤ 1000 mature individuals in the largest subpopulation, predicted decline 30–70%
- D(3) Total area of occupancy ≤ 1000 ha (10 km²), predicted decline 30–70%

E – large population and high ongoing or predicted decline

- E(1) 20,000–100,000 mature individuals, predicted decline 50–70%
- E(2) Total area of occupancy ≤ 10,000 ha (100 km²), predicted decline 50–70%

Table 3.3.3: Regionally Vulnerable indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY VULNERABLE (73)													
<i>TAXONOMICALLY DETERMINATE (71)</i>													
<i>Acaena buechananii</i> Hook.f.	bidibidi	Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Low	DPS, DPT, NR, NStr, PF, Sp, TL	DP	TL = H, S, S?: Otago Lake District / Tarras and Luggate, Upper Clutha / Mount Ida Valley / Cardrona Mountains. Lake Hāwea, Tarras and Luggate. ACNOs: H K?, CHR 9358 (as <i>Acaena buechananii</i> Hook.f. f. <i>erubescens</i> Bitter); S CHR 330983 , CHR 330984 , WELT SP028922 , WELT SP028945 ; S? WELT SP028925 , WELT SP028935
<i>Aciphylla subflabellata</i> W.R.B.Oliv.	speargrass	Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Medium	Low	DPS, DPT, NStr, PF, Sp	DP, Sp	
<i>Actinotus novae-zelandiae</i> Petrie	New Zealand flannel flower	Not Threatened	B (3)				≤ 100 ha	Stable: ±10%	High	Medium	DPS, NR, NS, RR	DP	
<i>Alepis flavida</i> (Hook.f.) Tiegh.	yellow mistletoe	Declining	C (1)			1000–5000 mature individuals		Decline: 10–30%	Medium	Low	CD, DPS, PF, Sp	CD	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Althenia bilocularis</i> (Kirk) Cockayne		Naturally Uncommon	B (3)	Yes			≤ 100 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NStr, TL	EF, RR, SO, Sp	TL = S, T?: Lake Waihola, eastern Otago. ACNOs: S AK 1255 , WELT SP063601 , WELT SP063602 , WELT SP063603 ; T? WELT SP060350 , WELT SP060351 , WELT SP060352 , WELT SP060353 , WELT SP060354 Previous Name and Authority: <i>Lepilaena bilocularis</i> Kirk
<i>Anisotome capillifolia</i> (Cheeseman) Cockayne		Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Low	Low	DPS, DPT, NR, NStr, RR, Sp	DP, PD, RF	
<i>Anisotome cauticola</i> J.W.Dawson		Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Low	Low	DPS, DPT, NR, NStr, PF, RR, Sp, TL	DP, RR, Sp	TL = H: Nevis Valley. ACNOs: WELT SP00515/A , WELT SP005155/B
<i>Anisotome pilifera</i> (Hook.f.) Cockayne & Laing		Declining	D (3)				≤ 1000 ha	Decline: 30–50%	Low	Low	DPS, DPT, Sp	DP, PD	
<i>Anthosachne aprica</i> (Ä.Löve & Connor) C.Yen & J.L.Yang	blue wheat grass	Naturally Uncommon	C (3)	Yes	Yes		≤ 100 ha	Decline: 10–30%	Low	Medium	DPR, DPS, DPT, NStr, PF, RE, Sp, TL	DP, Sp	RE = known only from Central Otago. TL = H: Hillside to west of Roxburgh. ACNOs: H CHR 370822
<i>Asplenium subglandulosum</i> (Hook. & Grev.) Salvo, Prada & T.E.Diaz		Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Low	DPS, DPT, NR, NStr, PF, RR, Sp	DP, SO, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Astelia petriei</i> Cockayne		Not Threatened	C (1)			1000–5000 mature individuals		Decline: 10–30%	Low	Low	DPS, DPT, Sp		
<i>Australina pusilla</i> (Poir.) Gaudich. subsp. <i>pusilla</i>		Not Threatened	B (3)				≤ 100 ha	Stable: ±10%	Medium	Medium	DPS, DPT, Sp	SO	
<i>Azorella nitens</i> Petrie		Not Threatened	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, RR		
<i>Carex appressa</i> R.Br.	southern cutty grass	Not Threatened	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NStr, RR	SO	
<i>Carex buchananii</i> Berggr.	Buchanan's sedge	Declining	B (3)	Yes			≤ 100 ha	Stable: ±10%	Low	Medium	DPS, DPT, NStr, Sp	DP	
<i>Carex maorica</i> Hamlin	Māori sedge	Not Threatened	C (3)				≤ 100 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, RR, Sp		
<i>Carex talbotii</i> Kottaim	Berggren's sedge, Talbot's sedge	Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Low	Medium	DPS, DPT, NStr, RR, TL	PD, Sp	TL = L, ISL, ISL (possible), T?: Mount Pisa / summit of Mount Pisa / Top of Mount Pisa Range, north from Cromwell. ACNOs: L WELT SP011974 ; ISL WELT SP011952 . ISL (possible): WELT SP011978/A , WELT SP011949 ; ISL? AK199699 , AK 2693 ; T? WELT SP011978/B Previous Name and Authority: <i>Carex berggrenii</i> Petrie
<i>Carex trifida</i> Cav.	mutton-bird sedge	Declining	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Medium	CI, DPS, DPT, RR, Sp	DPT, PD, SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Carmichaelia crassicaulis</i> Hook.f. subsp. <i>crassicaulis</i>	coral broom	Nationally Vulnerable	B (1)	Yes		20000–100000 mature individuals		Decline: 30–50%	Medium	Medium	NR, NStr, PF, RF, TL	RF	
<i>Carmichaelia crassicaulis</i> subsp. <i>racemosa</i> (Kirk) Heenan	slender coral broom	Nationally Vulnerable	C (1)	Yes		1000–5000 mature individuals		Decline: 30–50%	High	Medium	DPR, DPS, NR, NStr, PF, RF, Sp, TL	DP, RF	TL = H: near the Lindis Pass / Lindis Pass. ACNOs: WELT SP084571 ; ISL AK 4815
<i>Chaerophyllum novae-zelandiae</i> K.F.Chung		Not Threatened	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, NR, NStr, Sp		
<i>Chiloglottis valida</i> D.L.Jones	bird orchid	Vagrant	A (3)				≤ 10 ha	Increasing: >10%	Low	Medium	DPT, OL	SO	
<i>Chionochloa ovata</i> (Buchanan) Zotov	Fiordland snow tussock	Declining	C (1)			1000–5000 mature individuals		Decline: 30–50%	Low	Low	DPR, DPS, DPT, NR, Sp	CD, DP, RR, Sp	
<i>Clematis afoliata</i> Buchanan	leafless clematis	Not Threatened	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NR, Sp	DP	
<i>Colobanthus brevisepalus</i> Kirk	pin cushion	Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Low	CD, DPS, NR, NStr, PF, RR, TL	DP, Sp	TL = H, S: Bald Hill flat near Alexandra, Clutha/Mata-au River, Gorge Creek / Old Man ED. ACNOs: H W?: S AK 4075 , WELT SP050959
<i>Coprosma intertexta</i> G.Simpson	coprosma	Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Medium	Low	DPS, DPT, NR, NStr, PF, RF, Sp, TL	DP, Sp	TL = S, T?: Swinburne Valley, near Kyeburn / Central Otago ED. ACNOs: S AK 22885 , AK 211649 ; T? = CHR 63000 A , CHR 63000 B , CHR 550909

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Coprosma virescens</i> Petrie	coprosma	Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Medium	Medium	DPT, NR, NStr, PF, Sp, TL	DP, RF	TL = H, S, S?: near Ōtepoti Dunedin / Dunedin ED. ACNOs: H W?; S SP048838/A , SP048838/B ; S? AK 8933 , AK 8934 , AK 8935 , AK 8936 , AK 8937 , AK 211964
<i>Deschampsia cespitosa</i> (L.) P.Beauv.	tufted hair grass	Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NStr, RR, Sp	DPS, DPT, PD, SO	
<i>Dracophyllum frondosum</i> (G.Simpson) S.Venter	sprawling inaka	Naturally Uncommon	B (1)	Yes		1000–5000 mature individuals		Stable: ±10%	Low	Low	DPS, DPT, NR, NS, NStr, Sp, St, TL	Sp, DPS, DPT	TL = H, I: Deep Stream, Otago / Deep Stream, Lammermoor Range to Taiari/Taieri River; Deep Stream, Ōtepoti Dunedin - Middlemarch Road, near bridge. ACNOs: H CHR 47407 A , CHR 47407 B ; I WELT SP033375
<i>Drymoanthus flavus</i> St George & Molloy		Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Low	Low	DPS, DPT, NStr, Sp, TL	DP, Sp	TL = H, I: Tahakopa Bay Scenic Reserve. ACNOs: H CHR 482355 ; I WELT SP080019 , K 000891455
<i>Eleocharis sphacelata</i> R.Br.	tall spike sedge	Not Threatened	B (3)				≤ 100 ha	Stable: ±10%	Low	Low	DPS, DPT, OL	SO	
<i>Epilobium chionanthum</i> Hausskn.	marsh willowherb	Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Low	DPR, DPS, DPT, NStr, RR, Sp	DP	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Epilobium insulare</i> Hausskn.		Declining	C (3)				≤ 100 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NR, RR, Sp, TL	DP, RR, Sp	TL = L: Town Belt, Ōtepoti Dunedin. ACNOs: WELT SP042073
<i>Epilobium rostratum</i> Cheeseman		Not Threatened	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, NR, RR, Sp		
<i>Euchiton delicatus</i> (D.G.Drury) Holub		Naturally Uncommon	B (3)				≤ 100 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, RR, Sp	SO	
<i>Euchiton polylepis</i> (D.G.Drury) Breitw. & J.M.Ward		Declining	C (3)				≤ 100 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, PF, Sp	DP, PD, Sp	
<i>Helichrysum simpsonii</i> subsp. <i>tumidum</i> (Cheeseman) de Lange & Blanchon		Nationally Vulnerable	B (3)	Yes	Yes		≤ 10 ha	Stable: ±10%	High	High	NStr, RE, RR, TL	DP, RR	RE = known from near Cape Saunders. TL = L, ISL: near Cape Saunders. ACNOs: L WELT SP058412 ; ISL WELT SP058411 , WELT SP058413 Previous Name and Authority: <i>Helichrysum</i> aff. <i>intermedium</i> (c) (<i>Helichrysum selago</i> var. <i>tumidum</i> Cheeseman; WELT SP058412)
<i>Juncus pusillus</i> Buchenau	dwarf rush	Naturally Uncommon	C (3)				≤ 100 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, PF, RR, Sp	DP, SO, Sp	
<i>Lachnagrostis filiformis</i> (G.Forst.) Trin.		Not Threatened	B (1)			1000–5000 mature individuals		Stable: ±10%	Low	Low	DPR, DPS, DPT, EF	SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Lachnagrostis striata</i> (Colenso) Zotov		Not Threatened	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Low	DPR, DPS, DPT, RR		
<i>Lachnagrostis tenuis</i> (Cheeseman) Edgar		Nationally Vulnerable	B (3)	Yes			≤ 100 ha	Stable: ±10%	Medium	Medium	CI, DPR, DPS, DPT, NStr, RR, St, TL	RR	TL = H, I: Catlins River. ACNOs: H WELT SP077014/A ; I WELT SP077014/B
<i>Lepidium tenuicaule</i> Kirk	shore cress	Nationally Vulnerable	C (1)	Yes		1000–5000 mature individuals		Decline: 30–50%	High	High	CI, NR, NStr, PF, RR, TL	DP, RR	TL = H, S?, S (possible); L, T?: Cape Wanbrow, Ōamaru ED. ACNOs: H W?; S? AK 4482 , AK 4483 ; S (possible) WELT SP030071 ; L WELT SP030070 ; T? WELT SP030069
<i>Linum monogynum</i> G.Forst. var. monogynum		Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Medium	Medium	CI, DPS, DPT, NStr, PF, RR	DP	
<i>Lobelia perpusilla</i> Hook.f.		Not Threatened	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	High	DPS, DPT, NStr, RR	Sp	
<i>Luzula ulophylla</i> (Buchenau) Cockayne & Laing	wood-rush	Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Low	Medium	DPS, DPT, NR, NStr, PF, Sp	DP	
<i>Microlaena polynoda</i> (Hook.f.) Hook.f.		Declining	B (3)				≤ 100 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, Sp		
<i>Olearia fimbriata</i> Heads		Nationally Vulnerable	B (1)	Yes		1000–5000 mature individuals		Stable: ±10%	Medium	Medium	NR, NStr, PD, PF, TL	PD, RF	TL = H, I: Devil's Gorge, Pomahaka River, Umbrella ED. ACNOs: H OTA 043292 ; I OTA 043293, OTA 043295, OTA 043296

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Olearia laxiflora</i> Kirk		Not Threatened	B (3)	Yes			≤ 100 ha	Stable: ±10%	Medium	High	DPT, NStr, RF, RR		
<i>Peraxilla tetrapetala</i> (L.f.) Tiegh.	red mistletoe	Declining	C (1)			1000–5000 mature individuals		Decline: 10–30%	Medium	Medium	CD, DPS, DPT, PD, Sp	CD	
<i>Pimelea aridula</i> Cheeseman subsp. <i>aridula</i>		Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 30–50%	Medium	Low	DPS, NR, NStr, PF, RF, Sp, TL	RR, Sp	TL = I, L: Clyde Hospital Grounds / Old Man ED. ACNOs: I CHR 6344 ; L AK 101181
<i>Pimelea carnososa</i> C.J.Burrows		Not Threatened	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Medium	CI, DPR, DPS, DPT, NR, RR, Sp		
<i>Pimelea prostrata</i> (J.R.Forst. & G.Forst.) Willd. subsp. <i>prostrata</i>		Not Threatened	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Medium	TL, DPS, DPT, RR		TL = S: Mount Earnslaw Creek, Dart ED. ACNO: S AK 5410
<i>Pseudopanax ferox</i> Kirk	fierce lancewood	Naturally Uncommon	B (1)	Yes		1000–5000 mature individuals		Stable: ±10%	Medium	High	NR, NStr, PF, Sp, TL	PD, Sp	TL = H: "valley of the Poulter, near the junction of the Matukituki"? ACNOs: H W?
<i>Pterostylis tanypoda</i> D.L.Jones, Molloy & M.A.Clem.		Declining	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Low	DPS, DPT, NR, PF, Sp	DP, EF, Sp	
<i>Pterostylis tristis</i> Colenso		Declining	C (3)				≤ 100 ha	Decline: 10–30%	Medium	Low	DPS, DPT, PF, Sp	DP, EF, Sp	
<i>Ranunculus acraeus</i> Heenan & P.J.Lockh.		Nationally Endangered	C (1)			1000–5000 mature individuals		Decline: 10–30%	Medium	Low	De, DPS, DPT, NR, RF, RR, Sp	DP, RF	
<i>Ranunculus buechananii</i> Hook.f.		Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Medium	Medium	DPS, DPT, NR, NStr, RR, Sp, TL	DP, RR	TL = H, I: Bold Peak, Humboldt Mountains / Otago Lakes ED. ACNOs: H CHR 5338 A ; I CHR 5338 B

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Ranunculus royi</i> G.Simpson		Data Deficient	B (3)	Yes			≤ 100 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NStr, RR, Sp, TL		TL = H: Mount Roy, near Lake Wānaka. ACNO: H CHR 75712
<i>Raoulia beauverdii</i> Cockayne		Declining	D (3)	Yes			≤ 1000 ha	Decline: 30–50%	Medium	Medium	DPS, DPT, NR, NStr, PF, RR, Sp	DP, Sp	
<i>Raoulia parkii</i> Buchanan	celadon mat daisy	Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Low	DPS, DPT, NR, NStr, RR, Sp, TL		TL = H: Mount Alta range. ACNO: H OM?
<i>Rytidosperma maculatum</i> (Zotov) Connor & Edgar		Declining	D (3)	Yes			≤ 1000 ha	Decline: 30–50%	Low	Low	CD, DPR, DPS, DPT, NR, NStr, PD, PF, RR, Sp, TL		TL = H: Galloway, Central Otago. ACNO: H CHR 3660
<i>Rytidosperma merum</i> Connor & Edgar		Declining	C (3)	Yes			≤ 100 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, NR, NStr, PF, RR	DP, Sp	
<i>Schizacme novae-zelandiae</i> (Hook.f.) K.L.Gibbons		Not Threatened	B (3)				≤ 100 ha	Stable: ±10%	Medium	Low	OL, RR, NS, DPS		
<i>Senecio carnosulus</i> (Kirk) C.J.Webb		Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 10–30%	Medium	Medium	CI, DPR, DPS, DPT, EF, NStr, PF, RR, Sp, TL	DP, EF, Sp	TL = ISN: Cultivated ex Ōtepoti Dunedin, Black Head. ACNO: ISN AK 264208
<i>Stenostachys laevis</i> (Petrie) Connor	grassland wheatgrasses	Naturally Uncommon	B (3)	Yes			≤ 100 ha	Stable: ±10%	Low	Low	CI, DPR, DPS, DPT, NStr, RR, Sp, TL	DP, Sp	TL = L, S: Matukituki Valley, west of Lake Wānaka / Wānaka ED. ACNOs: L WELT SP068353 ; ISL AK 2038 , AK 223528 , AK 223527
<i>Stuckenia pectinata</i> (L.) Börner	fennel-leaved pondweed	Naturally Uncommon	C (3)				≤ 100 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NR, OL, RR	SO, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Vulnerable continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Tupeia antarctica</i> (G.Forst.) Cham. & Schtdl.	white mistletoe	Declining	C (1)	Yes		1000–5000 mature individuals		Decline: 30–50%	Medium	Medium	DPS, DPT, NR, NStr, PF, Sp	PD	
<i>Veronica annulata</i> (Petrie) Cockayne ex Cheeseman		Naturally Uncommon	B (2)	Yes		subpopulations ≤ 15, ≤ 500 mature individuals in largest subpopulation		Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, NStr, PF, Sp, St	RR, St, Sp	
<i>Veronica dilatata</i> (G.Simpson & J.S.Thomson) Garn.-Jones		Naturally Uncommon	C (2)	Yes		subpopulations ≤ 15, ≤ 500 mature individuals in largest subpopulation		Decline: 10–30%	Low	Low	DPR, DPS, DPT, NR, NStr, PF, Sp	Sp	
<i>Wahlenbergia ramosa</i> G.Simpson	coastal harebell	Not Threatened	C (3)				≤ 100 ha	Decline: 10–30 %	Medium	Medium	DPR, DPS, DPT, NR, Sp		
<i>Wahlenbergia violacea</i> J.A.Petterson	violet harebell	Not Threatened	C (3)				≤ 100 ha	Decline: 10–30 %	Medium	Medium	DPR, DPS, DPT, NR, Sp		
TAXONOMICALLY UNRESOLVED (2)													
<i>Chaerophyllum</i> (a) (CHR 364086; "minute flower")		Naturally Uncommon	C (3)				≤ 100 ha	Decline: 10–30%	Low	Medium	DP, DPT, DPR, RR	Sp, DPS, DPT	
<i>Leptinella</i> aff. <i>pectinata</i> (a) (CHR 580894; Nevis)		Nationally Vulnerable	A (3)	Yes	Yes		≤ 100 ha	Stable: ±10%	Low	High	DPT, NStr, OL, RE	DP, OL	OL = Found in an outcrop of fragmenting finely eroding schist

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural State; NStr = National Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure?Overseas; TO = Threatened Overseas; TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation; PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype, I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Regionally At Risk (297)

Taxa that meet the criteria specified by Townsend et al. (2008) and Michel (2021) for the statuses Regionally Declining, Regionally Recovering, Regionally Relict or Regionally Naturally Uncommon.

Regionally Declining (54)

Criteria for Regionally Declining:

A – moderate to large population and low ongoing or forecast decline of 10–30%

A(1) 5000–20,000 mature individuals

A(2) Total area of occupancy ≤ 1000 ha (10 km²)

B – large population and low to moderate ongoing or forecast decline of 30–50%

B(1) 20,000–100,000 mature individuals

B(2) Total area of occupancy ≤ 10,000 ha (100 km²)

C – very large population and low to high ongoing or forecast decline of 50–70%

C(1) > 100 000 mature individuals

C(2) Total area of occupancy > 10,000 ha (100 km²)

Table 3.4.1: Regionally Declining indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY DECLINING (54)													
<i>TAXONOMICALLY DETERMINATE (54)</i>													
<i>Acaena inermis</i> Hook.f.	blue mountain bidibid	Not Threatened	C (2)	Yes			> 10000 ha	Decline: 10–30%	Medium	Low	DPS, DPT, NStr, RR		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Aciphylla glaucescens</i> W.R.B.Oliv.	speargrass	Not Threatened	B (2)				≤ 10000 ha	Decline: 10–30%	High	Medium	TL, DPT	DPS, DPT	TL = H, I: Swampy Hill, Ōtepoti Dunedin. ACNOs: H WELT SP005401/A , I WELT SP005401/B , WELT SP005401/C , WELT SP005401/D
<i>Aciphylla lecomtei</i> J.W.Dawson		Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Medium	DPS, DPT, NR, NStr, Sp, TL	DP, RR, Sp	TL = H, I: Tapuae-o-Uenuku Hector Mountains. ACNOs: H WELT SP065502 ; I WELT SP065503
<i>Aciphylla takahea</i> W.R.B.Oliv.	speargrass	Declining	A (2)				≤ 1000 ha	Decline: 10–30 %	Low	Low	DPS, DPT, Sp		
<i>Agrostis muscosa</i> Kirk	pincushion grass	Not Threatened	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Medium	Medium	CI, DPS, DPT, NStr, PF, Sp, TL		TL = L, ISL: Lake Wānaka. ACNOs: L WELT SP069300 ; ISL WELT SP06925
<i>Anisotome brevistylis</i> (Hook.f.) Poppelw.	native carrot	Not Threatened	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NR, NStr, RR, Sp, TL		TL = H: Otago Lakes District. ACNO: H K?
<i>Anthosachne falcis</i> (Connor) Barkworth & S.W.L.Jacobs	grass	Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, NR, NStr, Sp	DP, Sp	
<i>Carex colensoi</i> Boott	Colenso's sedge	Not Threatened	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NStr, Sp		
<i>Carex dipsacea</i> Berggr.	teasel sedge	Not Threatened	A (2)				≤ 1000 ha	Decline: 10–30%	Low	Low	DPS, DPT, RR, Sp		
<i>Carex fretalis</i> Hamlin	curly sedge	Declining	A (2)				≤ 1000 ha	Decline: 10–30%	Medium	High	DPR, NR	DP, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Carex muelleri</i> Petrie	Mueller's sedge	Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	High	Medium	DPS, NR, NStr, Sp, TL		TL = L, ISL, T?: Nevis Valley, east of Tapuae-o-Uenuku Hector Mountains. ACNOs: L WELT SP021679/A ; ISL WELT SP021679/B ; T? WELT SP021679/C
<i>Carex parvispica</i> K.A.Ford	Sinclair's hook sedge	Declining	C (2)	Yes			> 10000 ha	Decline: 10–30%	Medium	Low	DPR, DPS, DPT, NR, NS, NStr, RR	Sp, DPR, DPS, DPT	
<i>Carex resectans</i> Cheeseman	desert sedge	Declining	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, NR, NStr Str, Sp		
<i>Carmichaelia arborea</i> (G.Forst.) Druce		Not Threatened	C (2)				> 10000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT		
<i>Carmichaelia compacta</i> Petrie	Cromwell broom	Naturally Uncommon	A (2)	Yes	Yes		≤ 1000 ha	Decline: 10–30%	High	High	NStr, PD, PF, RE, RF, RR, TL	RR	RE = known from Central Otago, on the Kawarau and Cromwell Gorges and surrounding area, also near Alexandra, Omakau, and Cromwell. TL = H, L, ISL: Dunstan Gorge / Clyde / Rock and sandstone faces, Alexandra / Old Man ED. ACNOs: H W?: L CHR 45904 B , WELT SP053661 ; ISL AK 4929 , AK 211346 , WELT SP026306

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Carmichaelia petriei</i> Kirk	desert broom	Declining	B (1)	Yes		20000–100000 mature individuals		Decline: 10–30%	Medium	Medium	NStr, RF, TL	DP, RF	TL = H, L, ISL: Dunstan Gorge / between Dansy's Pass and Livingstone / Cromwell Gorge / flats at the Matukituki River, Wānaka, near the forks to East and West / Central Otago ER. ACNOs: H W?; L CHR 45748 A , CHR 45809 C , CHR 213070 ; ISL AK 4873 , AK 209787 , CHR 45809 B
<i>Carmichaelia vexillata</i> Heenan	dwarf broom	Declining	B (1)	Yes		20000–100000 mature individuals		Decline: 10–30%	High	Medium	NR, NStr, RF, Sp	DP, RF	
<i>Chenopodium allanii</i> Aellen		Declining	A (1)	Yes		5000–20000 mature individuals		Decline: 10–30%	Medium	Low	DPS, DPT, NR, NStr, PF, Sp, TL	DP, Sp	TL = L: Lammermoor Mountains. ACNO: L CHR 1064
<i>Colobanthus strictus</i> Cheeseman	colobanthus	Not Threatened	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Low	Medium	DPR, DPS, DPT, NStr, Sp		
<i>Dolichoglottis scorzonoides</i> (Hook.f.) B.Nord.		Not Threatened	C (2)	Yes			> 10000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NStr, Sp	DP	
<i>Epilobium elegans</i> Petrie		Naturally Uncommon	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NStr, Sp		
<i>Epilobium hectorii</i> Hausskn.		Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NR, NStr, RR, Sp, TL		TL = H: Lindis Pass, Otago. ACNO: H CHR 76098

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Festuca matthewsii</i> subsp. <i>latifundii</i> Connor		Not Threatened	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Low	Medium	DPR, DPS, DPT, NR, NStr, TL		TL = H: Mount Longslip, Lindis Pass. ACNO: H CHR 98244
<i>Gingidia amphotoma</i> Heenan		Declining	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Medium	Low	DPS, DPT, NR		Previous Name and Authority: <i>Gingidia</i> aff. <i>montana</i> (c) (CHR 505502; Mt Cook)
<i>Gingidia baxterae</i> (J.W.Dawson) C.J.Webb		Naturally Uncommon	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Low	DPS, DPT, NR, NStr, PF, Sp, TL	DP, Sp	TL = H: Rock and Pillar Range. ACNO: H OTA 004685
<i>Gingidia grisea</i> Heenan		Naturally Uncommon	B (2)	Yes	Yes		≤ 10000 ha	Decline: 10–30%	Medium	Low	DPS, DPT, NStr, PF, RE, RR, TL	DP, RR	TL = H, I: Trotters Gorge Scenic Reserve / Waianakarua ED. ACNOs: H CHR 565624 ; I AK 288114
<i>Gingidia montana</i> (J.R.Forst. & G.Forst.) J.W.Dawson		Declining	C (2)	Yes			> 10000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NStr, Sp	DP	
<i>Gratiola sexdentata</i> R.Cunn. ex A.Cunn.		Not Threatened	A (2)				≤ 1000 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, RR, Sp		
<i>Juncus distegus</i> Edgar		Not Threatened	A (1)	Yes		5000–20000 mature individuals		Decline: 10–30%	Low	Medium	DPR, DPS, DPT, NR, NStr, PF, RR, Sp	DP, Sp	
<i>Leptinella serrulata</i> (D.G.Lloyd) D.G.Lloyd & C.J.Webb	dryland button daisy	Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	High	Medium	DPR, DPS, NStr, PF, Sp	DP, Sp	
<i>Mentha cunninghamii</i> Benth.		Declining	A (2)				≤ 1000 ha	Decline: 10–30%	Low	Low	DPS, DPT, PD, PF, Sp	PD	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Microlaena stipoides</i> (Labill.) R.Br.		Not Threatened	A (2)				≤ 1000 ha	Decline: 10–30%	Medium	Medium	DPR, DPS, DPT, Sp	SO	
<i>Myosotis goyenii</i> Petrie subsp. <i>goyenii</i>		Naturally Uncommon	A (2)	Yes	Yes		≤ 1000 ha	Decline: 10–30 %	Medium	Low	DPS, DPT, NR, NStr, Sp		
<i>Myosotis macrantha</i> (Hook.f.) Benth. & Hook.f.		Not Threatened	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	High	Medium	DPS, NStr, Sp, TL		TL = H, T?: Mount Pollux, head of Wilkin River, Lake Wānaka, Arawata ED. ACNOs: H CHR 75723 ; T? CHR 549662
<i>Olearia fragrantissima</i> Petrie		Declining	A (1)	Yes		5000–20000 mature individuals		Decline: 10–30%	Medium	High	DPT, NR, NStr, PD, PF, Sp, TL	PD	TL = S?, S (possible): near Ōtepoti Dunedin / Tomahawk, near Ōtepoti Dunedin / Vauxhall, near Ōtepoti Dunedin, Catlins River / Otago Coast ER. ACNO: S? AK 9627 ; S (possible) WELT SP032533 , WELT SP032529 , WELT SP032535 , WELT SP032528 , WELT SP032534 , WELT SP032516/A , WELT SP032516/B , WELT SP032516/C
<i>Olearia lineata</i> (Kirk) Cockayne		Declining	A (1)	Yes		5000–20000 mature individuals		Decline: 10–30%	Medium	High	NStr, PD, PF, RF, Sp	RF	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Pachycladon wallii</i> (Carse) Heenan & A.D.Mitch.		Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NR, NStr, RR, Sp, TL	DP, RR, Sp	TL = H, I: Bold Peak and Mount Bonpland / Cecil Peaks, Lake Wakitipu. ACNOs: H CHR 331403 , CHR 329555 ; I CHR 329556
<i>Olearia odorata</i> Petrie		Declining				> 10000 ha		Decline: 10–30%	High	Medium	TL, DPT	DPS, DPT, PF	TL = H, S: Maniototo Plain, Otago / Maniototo to Lake Hāwea / Between Roxburgh and Speargrass Flat, Clutha Valley / North of Roxburgh, Clutha Valley / Cromwell / Upper Clutha basin. ACNOs: S WELT SP023630 , WELT SP032636 , WELT SP032640 , WELT SP057388 ; WELT SP057339 ; WELT SP057340
<i>Peraxilla colensoi</i> (Hook.f.) Tiegh.	scarlet mistletoe	Declining	A (1)			5000–20000 mature individuals		Decline: 10–30%	Medium	Medium	CD, DPS, DPT, NR, PD, SP	CD	
<i>Plantago spathulata</i> Hook.f.		Not Threatened	A (2)				≤ 1000 ha	Decline: 10–30%	Medium	Low	DPR, DPS, DPT, NR, Sp	DP	
<i>Poa lindsayi</i> Hook.f.		Not Threatened	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	High	Medium	DPR, DPS, NStr, Sp, TL		TL = L: northern slopes of Saddle Hill, near Ōtepoti Dunedin. ACNO: L K?

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Poa maniototo</i> Petrie		Declining	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NR, NStr, Sp, TL		TL = L, ISL (possible), S: Maniototo Plain, Upper Clutha, Otago / Mount Cardrona / Maniototo Plains / Maniototo ED. ACNOs: L AK 1940 ; S WELT SP066146 ; ISL (possible) WELT SP066145 , WELT SP07607
<i>Puccinellia stricta</i> (Hook.f.) C.H.Blom		Not Threatened	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Medium	CI, DPR, DPS, DPT, NStr, PF, RR, TL	SO	TL = I, TF: Ōamaru / Ōamaru ED. ACNOs: I SP068569 ; TF CHR 42730
<i>Ranunculus lyallii</i> Hook.f.		Not Threatened	C (2)	Yes			> 10000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NStr		
<i>Ranunculus pilifera</i> (F.J.F.Fisher) Heenan & P.J.Lockh.		Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Medium	DPS, DPT, NR, NStr, RF, RR, TL	DP, RR, RF	TL = L: head of Hut Creek, branch of Lochy River, Eyre Mountains, Rough Peaks Range. ACNOs: L CHR 158126 C
<i>Raoulia australis</i> Hook.f. ex Raoul		Declining	B (2)	Yes			≤ 10000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NR, NStr	DPS, DPT	
<i>Raoulia hookeri</i> Allan var. <i>hookeri</i>		Not Threatened	B (2)				≤ 10,000 ha	Decline: 10–30 %	Low	Medium	DPR, DPS, DPT, Sp		
<i>Rumex neglectus</i> Kirk		Not Threatened	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Medium	CI, DPS, DPT, NStr, PF, RR, Sp		
<i>Rytidosperma buchananii</i> (Hook.f.) Connor & Edgar		Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Low	DPR, DPS, DPT, NStr, PF, Sp, TL	DP	TL = H: Otago. ACNO: H K?

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Rytidosperma pumilum</i> (Kirk) Connor & Edgar		Not Threatened	C (2)	Yes			> 10000 ha	Decline: 10–30%	Low	Medium	DPR, DPS, DPT, NR, NStr, Sp, TL	SO	TL = L, ISL, TF: Macraes, Otago / Macraes, Waihemo County, northeast Otago. ACNOs: L WELT SP039891 ; ISL CHR 4152 , WELT SP039871 , WELT SP039907 ; TF CHR 236573
<i>Senecio matatini</i> subsp. <i>basinudus</i> Ornduff		Naturally Uncommon	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Medium	Medium	CI, DPS, DPT, NStr, PF, RR, Sp	DP, RR	Previous name: <i>Senecio glaucophyllus</i> subsp. <i>basinudus</i> Ornduff
<i>Urtica aspera</i> Petrie	nettle	Declining	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Low	DPS, DPT, NR, NStr, PF, Sp, TL	Sp	TL = H, S, S?: Firewood Creek, Dunstan Range near Cromwell / Maniototo ED / Central Otago ER. ACNOs: H W?; S WELT SP017831 , WELT SP017838 ; S? AK 210752 , AK 210751 , AK 3784 , AK 3785
<i>Veronica pimeleoides</i> Hook.f. subsp. <i>pimeleoides</i>		Not Threatened	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Low	Low	DPS, DPT, NR, NStr, RR, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Declining continued

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Veronica pimeleoides</i> subsp. <i>faucicola</i> (Kellow & Bayly) Garn.-Jones		Naturally Uncommon	A (2)	Yes			≤ 1000 ha	Decline: 10–30%	Medium	Medium	DPS, DPT, NR, NStr, PF, RR, Sp, TL	RR, Sp	Mostly found in central Otago in the Manuherikia, Kawarau and Clutha River valleys. Not considered a RE as may be more widespread. TL = H: lookout point ca. 300 m northeast of dam wall, near Clyde ACNO: H WELT SP082445

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural state; NStr = Natural Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Oversea?; S?O = Secure?Overseas; TO = Threatened Overseas' TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation' PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype; I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Regionally Naturally Uncommon (243)

Criteria for Regionally Naturally Uncommon:

Taxa whose distribution is confined to a specific geographical area or which occur within naturally small and widely scattered populations, where this distribution is not the result of human disturbance.

Table 3.4.2: Regionally Naturally Uncommon indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY NATURALLY UNCOMMON (243)												
<i>TAXONOMICALLY DETERMINATE (237)</i>												
<i>Abrotanella linearis</i> Berggr.		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, Sp		
<i>Abrotanella patea</i> Heads		Naturally Uncommon	Yes	Yes	250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RE, Sp, St, TL	DP, Sp	RE = known only from Eastern and Central Otago: Rock and Pillar Range, Lammerlaw Top, Umbrella Mountains, Garvie Mountain TL = H: Rock and Pillar Range. ACNO: H OTA 023132
<i>Acaena dumicola</i> B.H.Macmill.	bidibidi	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, Sp		
<i>Acaena glabra</i> Buchanan	bidibidi	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, NS, Sp		
<i>Acaena tesca</i> B.H.Macmill.	bidibidi	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, Sp, TL		TL = H, I: Catlins River Valley; Kopuwai Old Man Range, east slope. ACNOs: H CHR 391420 ; I OTA 046286 , WELT SP078896
<i>Aciphylla divisa</i> (Cheeseman) Cheeseman		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, NS, NStr, Sp	DP	
<i>Aciphylla dobsonii</i> Hook.f.		Not Threatened			250–20000 mature individuals		Stable: ±10%	Medium	Low	DPS, DPT, NR, NS, RR	DP	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Aciphylla hectorii</i> Buchanan		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp, TL	DP	TL = S? or IS?: Hector Col, Mount Aspiring Range / St. Mary ED / Nokomai ED / Garvie Mountains. ACNOs: S? or IS AK 6525
<i>Aciphylla horrida</i> W.R.B.Oliv.	speargrass	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, Sp		
<i>Aciphylla kirkii</i> Buchanan		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp, TL	DP	TL = H, S, type (possible), T?: Mount Alta / Wānaka ED. ACNOs: H OM?; S AK 6541 ; type (possible) WELT SP011641 , WELT SP013819 ; T? WELT SP011640
<i>Aciphylla lyallii</i> Hook.f.		Not Threatened			250–20000 mature individuals		Stable: ±10%	High	Low	DPS, NR, NS, Sp	DP	
<i>Aciphylla montana</i> Armstr. var. <i>montana</i>		Not Threatened	Yes		250–20000 mature individuals		Stable: ±10%	Medium	Low	DPR, DPS, DPT, NR, NS, NStr, Sp	DP	
<i>Aciphylla montana</i> var. <i>gracilis</i> (W.R.B.Oliv.) J.W.Dawson		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, Sp, St, RR	DP, RR	
<i>Aciphylla pinnatifida</i> Petrie		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	High	Medium	NR, NS, NStr, RR	DP	
<i>Aciphylla scott-thomsonii</i> Cockayne & Allan	giant speargrass	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, Sp, TL		TL = H, T?: Catlins River Valley, Tokomairaro River mouth; Mount Maungatua, Milton, near Ōtepoti Dunedin. ACNOs: H CHR 11226 , CHR 11227 ; T? CHR 521532
<i>Aciphylla simplex</i> Petrie		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	DP, RR, Sp	TL = H, S, L: Mount Cardrona, Lake County / Lakes ED. ACNOs: H W?; S AK 6543 ; L WELT SP002123/A , WELT SP002123/B
<i>Aciphylla spedenii</i> Cheeseman		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	RR	TL = S: Cecil Peak, near Lake Whakatipu / Eyres ED. ACNOs: S AK 6538 , AK 6536 , AK 6537
<i>Agrostis dyeri</i> Petrie		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Agrostis pallescens</i> Cheeseman		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, NStr, RR, St		
<i>Anaphalioides hookeri</i> (Allan) Anderb.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, RR, Sp		
<i>Anemonastrum tenuicaule</i> (Cheeseman) de Lange et Mosyakin	New Zealand anemone	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, Sp	DP, Sp	Previous Name and Authority: <i>Anemone tenuicaulis</i> (Cheeseman) Parkin & Sledge
<i>Anisotome lanuginosa</i> (Kirk) J.W.Dawson		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, NS, RR, Sp, St, TL	DP, Sp	TL = H or L, S or ISN, L: Tapuae-o-Uenuku Hector Mountains or Kopuwai Old Man Range & Tapuae-o-Uenuku Hector Mountains. ACNOs: H or L WELT SP001166 ; S or ISN AK 6676
<i>Argyrotegium mackayi</i> (Buchanan) J.M.Ward & Breitw.	matt daisy	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NStr, RR		
<i>Asplenium bulbiferum</i> G.Forst.	hen and chicken fern	Not Threatened			250–20000 mature individuals		Stable: ±10%	Low	Low	DPR, DPS, DPT, Sp		
<i>Asplenium obtusatum</i> G.Forst.	shore spleenwort	Not Threatened	Yes			< 100000 ha	Stable: ±10%	High	High	NStr, RR, Sp	SO	
<i>Asplenium polyodon</i> G.Forst.	sickle spleenwort	Not Threatened			250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, Sp	SO	
<i>Astelia linearis</i> var. <i>novae-zelandiae</i> Skottsb.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NS, RR		
<i>Austroblechnum durum</i> (T.Moore) Gasper et V.A.O.Dittrich		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, RR		Previous Name and Authority: <i>Blechnum durum</i> (T.Moore) C.Chr.

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Austroblechnum membranaceum</i> (Colenso ex Hook.) Gasper et W.A.O.Dittrich		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, Sp, NR		
<i>Azorella cockaynei</i> Diels		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, NStr, RR, Sp		
<i>Azorella exigua</i> (Hook.f.) Drude		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	RR	TL = H: Otago Lake District. ACNOs: H K?
<i>Azorella haastii</i> subsp. <i>haastii</i> (Hook.f.) Drude		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NS, Sp		
<i>Azorella hydrocotylodes</i> (Hook.f.) Kirk		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp		
<i>Brachyglottis cassinioides</i> (Hook.f.) B.Nord.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, Sp		
<i>Brachyglottis southlandica</i> (Cockayne) B.Nord.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NStr, Sp, TL		TL = H: Whisky Gully, near Tapanui. ACNO: H CHR 24175
<i>Brachyscome humilis</i> G.Simpson & J.S.Thomson	daisy	Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NS, NStr, RE, RR, Sp, St, TL	DP, Sp	TL = N, ISN: Rock and Pillar Range. ACNOs: N CHR 199636 ; ISN WELT SP041374
<i>Brachyscome longiscapa</i> G.Simpson & J.S.Thomson	daisy	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	DP, Sp	TL = N: Dunback - Kyeburn road, near Kyeburn. ACNO: N CHR 112471
<i>Brachyscome montana</i> G.Simpson	daisy	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NR, NStr, NS, RR, Sp, St		
<i>Bulbinella gibbsii</i> var. <i>balanifera</i> L.B.Moore	Gibbs's onion	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, Sp		
<i>Cardamine dimidia</i> Heenan	cress	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, NStr, Sp, TL		TL = H: Lauder Creek, Dunstan Mountains. ACNO: H CHR 586035

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Cardamine dolichostyla</i> Heenan	New Zealand bitter cress	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, Sp		
<i>Cardamine exigua</i> Heenan	cress	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp, St, TL	DP	TL = H: Rock and Pillar Range. ACNO: H CHR 199634
<i>Cardamine intonsa</i> Heenan	cress	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, Sp		
<i>Cardamine reptans</i> Heenan	cress	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NS, NStr, RR, Sp, St, TL	DP	TL = H: Dunstan Mountains, Fairfax Spur, near Leaning Rock. ACNO: H CHR 514169
<i>Carex diandra</i> Schrank	sedge	Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, RR	SO	
<i>Carex flaviformis</i> Nelmes	yellow sedge	Not Threatened				≤ 1000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, RR		
<i>Carex forsteri</i> Wahlenb.	Forster's sedge	Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, Sp		
<i>Carex hectorii</i> Petrie	Hector's sedge	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, NS, NStr, Sp, St, TL	Sp	TL = I, ISL, L: Kopuwaiti Old Man Range / Kopuwaiti, summit of Mount Pisa / Old Man ED. ACNOs: L WELT SP011957 ; I = CHR 288717 ; ISL AK 223516 , AK 2695 , WELT SP014641
<i>Carex inversa</i> R.Br.	creeping lawn sedge	Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, RR	SO	
<i>Carex lachenalii</i> subsp. <i>parkeri</i> (Petrie) Toivonen	sedge	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR, Sp, St, TL	Sp	TL = N: head of Lake Whakatipu / Richardson ED. ACNOs: N AK 2564 , AK 223517 , AK 223518
<i>Carex lessoniana</i> Steud.	cutty grass	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, Sp		
<i>Carex petriei</i> Cheeseman	Petrie's sedge	Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	High	DPS, RR		
<i>Carex pterocarpa</i> Petrie	sedge	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	RR, Sp	TL = H or L, ISL, L (possible): Mount Pisa, north from Cromwell, west side of Clutha/Mata-au River. ACNOs: H or L WELT SP021489 ; ISL CHR 73159 ; L (possible) WELT SP021488

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Carex pumila</i> Thunb.	sand sedge	Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	High	CI, DPS, RR		
<i>Carex purpurata</i> (Petrie) K.A.Ford	tussock hook sedge	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NStr, Sp, St, TL	Sp	TL = I, CT, ISL?, T?: Signal Hill, Ōtepoti Dunedin / Dunedin ED. ACNOs: I CHR 294811 ; ISL? AK 2353 ; T? WELT SP001693/A , WELT SP001693/B , WELT SP001693/C ; CT WELT SP001695
<i>Carex raoulii</i> Boott	coastal forest sedge	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, Sp		
<i>Celmisia argentea</i> Kirk	silver cushion mountain daisy	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, Sp, TL		TL = H or T (possible), I, S: swampy ground summit of Maungatua / Maungatua Hill, Taieri/Taieri County / Otago. ACNOs: H or T (possible) WELT SP045695 ; I WELT SP001693/B ; S AK 9970
<i>Celmisia bellidioides</i> Hook.f.	green cushion mountain daisy	Not Threatened				< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, RR, Sp		
<i>Celmisia bonplandii</i> (Buchanan) Allan	mountain daisy	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp, TL		TL = N: Bold Peak, Humboldt Mountains (original type locality Mount Bonpandt). ACNO: N CHR 6301
<i>Celmisia brevifolia</i> Cockayne	common shrub mountain daisy	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp, TL		TL = S, S (possible): Mount Ernest. ACNOs: S AK 34925 ; S (possible) WELT SP045774
<i>Celmisia coriacea</i> (G.Forst.) Hook.f.	Fiordland mountain daisy	Not Threatened			250–20000 mature individuals		Stable: ±10%	Medium	Low	DPS, DPT, NR, NStr, RR, Sp		
<i>Celmisia discolor</i> Hook.f.	daisy	Not Threatened	Yes			< 100,000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NStr, Sp		
<i>Celmisia haastii</i> var. <i>tomentosa</i> G.Simpson & J.S.Thomson	daisy	Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	Medium	Medium	NS, NStr, RE, RR, St, TL	RR	TL = H, S, T?: Rock and Pillar Range. ACNOs: H CHR 50011 ; S AK 106430 ; T? CHR 549665
<i>Celmisia hookeri</i> Cockayne	Hooker's mountain daisy	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	NR, NStr, RR	Sp	TL = NT: north-east Otago

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Celmisia lindsayi</i> Hook.f.	Lindsay's Daisy	Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RE, RR, St, TL	RR, Sp	TL = H: Trap Cliffs at Shaw's Bay, the Nuggets. ACNO: H K340033
<i>Celmisia philocremna</i> Given	Eyre Mountains daisy	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	DP, RR, Sp	TL = H: Windley branch of Eyre Creek, Eyre Mountain. ACNO: H CHR 166411A
<i>Celmisia prorepens</i> Petrie	daisy	Not Threatened	Yes		250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp, TL		TL = H or L, S, I (possible): Kopuwai Old Man Range, Otago / ex Kopuwai Old Man Range, Otago. ACNOs: H or L: WELT SP002151 ; S AK 9762 ; I (possible) WELT SP084084
<i>Celmisia ramulosa</i> var. <i>tuberculata</i> G.Simpson & J.S.Thomson	mountain daisy	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, Sp, TL		TL = H, S, T?: Rough Peaks, Lake Whakatipu / Eyre ED. ACNOs: H CHR 50003 ; S AK 170505 ; T? CHR 550039
<i>Celmisia semicordata</i> subsp. <i>aurigans</i> Given	large mountain daisy	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT NS, NR, NStr, Sp		
<i>Celmisia thomsonii</i> Cheeseman	Thomson's mountain daisy	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	DP, RR, Sp	TL = S: Eyre Mountains. ACNO: S AK 9976
<i>Centrolepis pallida</i> (Hook.f.) Cheeseman	centrolepis	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR		
<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i> Kunze	rock fern	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, Sp	SO	Previous Name and Authority: <i>Cheilanthes sieberi</i> Kunze
<i>Chionochloa vireta</i> Connor	snow tussock	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR, St	DP, RR, Sp	
<i>Colobanthus apetalus</i> (Labill.) Druce	colobanthus	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, RR, Sp	SO	
<i>Colobanthus muelleri</i> Kirk	colobanthus	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, RR, TL	DP	TL = S?: Otago? ACNO: S? AK 4071

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Coprosma elatirioides</i> de Lange & A.S.Markey	coprosma	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, RR, Sp		
<i>Cordyline indivisa</i> (G.Forst.) Steud.	mountain cabbage tree	Not Threatened			250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, NS, Sp		
<i>Cranfillia nigra</i> (Colenso) Gasper et V.A.O.Dittrich	black hard fern	Not Threatened			250–20000 mature individuals		Stable: ±10%	Medium	Low	DPS, DPT, NS, RR		
<i>Crassula colligata</i> Toelken subsp. <i>colligata</i>		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, Sp	EF, SO	
<i>Cystopteris tasmanica</i> Hook.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, Sp	SO	
<i>Dianella nigra</i> Colenso		Not Threatened				≤ 100 ha	Stable: ±10%	High	Medium	DPT, Sp	≤ 100 ha	
<i>Dracophyllum menziesii</i> Hook.f.		Not Threatened	Yes		250–20000 mature individuals		Stable: ±10%	High	Medium	DPS, NS, NStr	DP	
<i>Dracophyllum palustre</i> Cockayne ex W.R.B.Oliv.		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, RR, Sp	< 100,000 ha	
<i>Dracophyllum politum</i> (Cheeseman) Cockayne		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, RR, TL		TL = H, L, I or ISL: Maungatua, / Mount Maungatua, near Ōtepoti Dunedin / Maungatua Hill, Taiari/Taieri County / Dunedin ED. ACNOs: H A?; L AK 7033 ; I or ISL WELT SP033366
<i>Dracophyllum prostratum</i> Kirk		Not Threatened	Yes		250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RR, Sp, TL		TL = H, L, ISL: mountains above Lake Harris, Otago-Southland boundary / near falls above Lake Harris. ACNOs: H W?; L WELT SP032884 ; ISL CHR 332686 , WELT SP032883 , WELT SP032882
<i>Eleocharis pusilla</i> R.Br.		Not Threatened				≤ 100 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, RR	SO	
<i>Epilobium cinereum</i> A.Rich.		Not Threatened				≤ 100 ha	Stable: ±10%	Low	Low	CI, DPS, DPT, RR	SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Epilobium crassum</i> Hook.f.		Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	High	DPS,	DPS, DPT	
<i>Epilobium komarovianum</i> H.Lév.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	CI, DPS, DPT, NStr, RR		
<i>Epilobium matthewsii</i> Petrie		Naturally Uncommon				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, Sp	DP, RR, Sp	
<i>Epilobium microphyllum</i> A.Rich.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, RR, Sp		
<i>Epilobium pallidiflorum</i> A.Cunn.	swamp willowherb	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, RR	SO	
<i>Epilobium porphyrium</i> G.Simpson		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NStr, Sp, TL		TL = H. I: Hector Col / Arawata ED. ACNOs: H CHR 90790 ; I AK 22888
<i>Epilobium purpuratum</i> Hook.f.		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RR, Sp, St, TL	RR, Sp	TL = NT: Alps of Otago. ACNO: NT K?
<i>Euchiton traversii</i> (Hook.f.) Holub		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, Sp	SO	
<i>Euphrasia dyeri</i> Wettst.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR, TL		TL = H, I, I (possible): Mount Kyeburn / Kyeburn Hill, Maniototo County. ACNOs: H K?; I WELT SP004855 ; I (possible) WELT SP104461
<i>Euphrasia integrifolia</i> Petrie		Naturally Uncommon				< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NR, NS, RR, Sp, St	DP, RR, Sp	
<i>Euphrasia petriei</i> Ashwin		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR, Sp		
<i>Exocarpos bidwillii</i> Hook.f.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, Sp		
<i>Festuca madida</i> Connor		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NStr, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Festuca matthewsii</i> subsp. <i>pisamontis</i> Connor		Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	Low	Medium	DPR, DPS, DPT, NStr, RE, RR, St, TL	RR	RE = known only from Central Otago: Dunstan, Pisa, and Kopuwai Old Man Range TL = H: Mount Pisa, Pisa Range. ACNO: H CHR 74046
<i>Forstera purpurata</i> Glenny		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, Sp		
<i>Gahnia procera</i> J.R.Forst. & G.Forst.	giant sedge	Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, Sp		
<i>Gaultheria nubicola</i> D.J.Middleton		Not Threatened	Yes			< 100000 ha	Stable: ±10%	High	High	NS, NStr, RR		
<i>Gaultheria rupestris</i> (L.f.) D.Don		Not Threatened			250–20000 mature individuals		Stable: ±10%	Low	Medium	DPR, DPS, DPT, NS, Sp		
<i>Gentianella amabilis</i> (Petrie) Glenny		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RR		
<i>Gentianella lilliputiana</i> (C.J.Webb) Glenny		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NS, Sp, St	DP, Sp	
<i>Gentianella serotina</i> (Cockayne) T.N.Ho & S.W.Liu		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, Sp		
<i>Geum pusillum</i> Petrie		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	DP, RR, Sp	TL = H, L, ISL: Kopuwai Old Man Range, Clutha Basin. ACNOs: H W?; L WELT SP030388/A ; ISL WELT SP030388/B
<i>Gunnera dentata</i> Kirk		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, RR, TL		TL = S or ISN: Lake Wānaka, Lake Hāwea. ACNOs: S or ISN AK 6025 , AK 6026
<i>Haastia sinclairii</i> Hook.f. var. <i>sinclairii</i>		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Hiya distans</i> (Hook.) Brownsey & Perrie		Not Threatened			subpopulations ≤ 15, ≤ 1000 mature individuals in largest subpopulation		Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, Sp	TO	Previous Name and Authority: <i>Hypolepis distans</i> Hook.
<i>Hydrocotyle dissecta</i> Hook.f.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, Sp		
<i>Hydrocotyle robusta</i> Kirk		Not Threatened				< 100000 ha	Stable: ±10%	Low	Medium	DPR, DPS, DPT, NR, Sp	DP	
<i>Hymenophyllum flexuosum</i> A.Cunn.		Not Threatened				≤ 1000 ha	Stable: ±10%	Low	Medium	DPS, DPT, Sp		
<i>Hymenophyllum malingii</i> (Hook.) Mett.		Not Threatened				≤ 1000 ha	Stable: ±10%	High	High	RR		
<i>Hymenophyllum minimum</i> A.Rich.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, Sp		
<i>Isolepis praetextata</i> (Edgar) Soják		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	CI, DPR, DPS, DPT, NS, RR, Sp		
<i>Isolepis reticularis</i> Colenso		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, Sp		
<i>Kelleria childii</i> Heads		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, TL		TL = H: Rock and Pillar Range. ACNO: H OTA 37813
<i>Kelleria croizatii</i> Heads		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, Sp		
<i>Kelleria paludosa</i> Heads		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR, TL		TL = H: Teviot Swamp, Lammerlaw Range. ACNO: H OTA 34004
<i>Kelleria villosa</i> var. <i>barbata</i> Heads		Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NS, NStr, RE, RR, Sp, St, TL	RR, Sp	TL = H: Rock and Pillar Range. ACNO: H OTA 009887

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Koeleria youngii</i> (Hook.f.) Barberá, Quintanar, Soreng & P.M.Peterson		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NS, Sp		
<i>Korthalsella salicornioides</i> (A.Cunn.) Tiegh.	dwarf mistletoe	Declining	Yes			< 100000 ha	Stable: ±10%	Medium	Low	De, DPS, DPT, NStr, PF, Sp	DP, Sp	
<i>Lachnagrostis uda</i> Edgar		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NS, NStr, RR, Sp, St	DP, RR, Sp	
<i>Lagenophora pinnatifida</i> Hook.f.		Not Threatened			250–20000 mature individuals		Stable: ±10%	Low	Low	DPS, DPT, Sp, St		
<i>Lateristachys diffusa</i> (R.Br.) Holub		Not Threatened			250–20000 mature individuals		Stable: ±10%	Low	Low	DPS, DPT, Sp, St		
<i>Lepidium desvauxii</i> Thell.	bushy peppergrass	Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, RR, Sp	SO	
<i>Lepidosperma australe</i> (A.Rich.) Hook.f.		Not Threatened				≤ 100 ha	Stable: ±10%	Medium	Medium	CI, DPR, DPS, DPT, RR, Sp	SO	
<i>Leptinella albida</i> (D.G.Lloyd) D.G.Lloyd & C.J.Webb		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NS, NStr, RR, Sp, St, TL	DP, RR, Sp	Distributional notes: near regional endemic, only because range could extend into Garvie Mountains, Southland. TL = lost, L, ISL, ISL?: Mount Cardrona, north of Arrowtown, Lake Whakatipu. ACNOs: L CHR 68186 ; ISL AK 212127 , AK 10388 ; ISL ? WELT SP057714 , WELT SP057712
<i>Leptinella atrata</i> (Hook.f.) D.G.Lloyd & C.J.Webb subsp. <i>atrata</i>		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, RR, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Leptinella goyenii</i> (Petrie) D.G.Lloyd & C.J.Webb		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, NStr, TL		TL = H, I, L (possible), ISL, ISL (possible), ISL?: Mount Pisa, north of Cromwell / Pisa ED. ACNOs: H W?; I CHR 68173 ; L (possible) WELT SP057612 ; ISL (possible) WELT SP057709 ; ISL? AK 10391
<i>Leptinella pectinata</i> (Hook.f.) D.G.Lloyd & C.J.Webb subsp. <i>pectinata</i>		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, NStr, Sp, TL		
<i>Libertia micrantha</i> A.Cunn.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	High	DPS, NS, Sp		
<i>Lilaeopsis ruthiana</i> Affolter		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, RR, Sp	SO	
<i>Lobelia glaberrima</i> Heenan		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp, TL		TL = H: Long Burn, Eyre Mountains. ACNO: H CHR 468987
<i>Lobelia linnaeoides</i> (Hook.f.) Petrie		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp		
<i>Lobelia roughii</i> Hook.f.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, Sp		
<i>Lophomyrtus obcordata</i> (Raoul) Burret	rohutu	Declining			250–20000 mature individuals		Stable: ±10%	Medium	Medium	De, DPS, PF, Sp	DP	
<i>Luzula banksiana</i> var. <i>acra</i> Edgar	wood-rush	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, RR, Sp		
<i>Luzula banksiana</i> var. <i>rhadina</i> (Buchenau) Edgar	wood-rush	Data Deficient	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NStr, Sp		
<i>Luzula colensoi</i> Hook.f.	wood-rush	Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, Sp		
<i>Luzula crenulata</i> Buchenau	wood-rush	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NR, NS, NStr, RR, Sp, TL	RR	TL = H: Kopuwai Old Man Range, Central Otago. ACNO: H WELT SP012358

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes	
<i>Luzula leptophylla</i> Buchenau & Petrie	wood-rush	Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, NS, RR, Sp, St, TL	DP, RR, Sp	TL = H, I, T?: Mount Kyeburn, Central Otago / Maniototo County / St. Mary ED. ACNOs: H WELT SP012654 ; I AK 223509 , AK 3068 ; T? CHR 491870	
<i>Luzula subclavata</i> Colenso	wood-rush	Not Threatened				< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NR, Sp			
<i>Lycopodiella diffusa</i> (R.Br.) B.Øllg.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, RR, Sp	SO		
<i>Machaerina rubiginosa</i> (Spreng.) T.Koyama	baumea	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, RR, Sp	SO		
<i>Machaerina tenax</i> (Hook.f.) T.Koyama		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NS, RR, Sp			
<i>Melicytus micranthus</i> (Hook.f.) Hook.f.		Not Threatened			250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, NR, Sp			
<i>Microschizaea australis</i> (Gaudich.) C.F.Reed		Not Threatened					< 10 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, OL, SO		
<i>Myosotis antarctica</i> subsp. <i>antarctica</i> Hook.f.		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, Sp	DP, Sp, TO	Previous Name and Authority: <i>Myosotis antarctica</i> Hook.f.	
<i>Myosotis bryonoma</i> Meudt, Prebble & Thorsen	forget-me-not	Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RE, RR, Sp, TL	DP, RR, Sp	RE = known from high-elevation bogs and wet places in mountain ranges of Otago TL = H: Otago, Garvie Mountains, east of Lake Laura, Old Man ED. ACNO: H WELT SP104478	
<i>Myosotis lyalli</i> Hook.f. subsp. <i>lyalli</i>		Naturally Uncommon				< 100000 ha	Stable: ±10%	Medium	Medium	De, DPR, NS, Sp, St	DP, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Myosotis lyallii</i> subsp. <i>elderi</i> (L.B.Moore) Meudt & Prebble		Naturally Uncommon				< 100000 ha	Stable: ±10%	Medium	Medium	De, DPR, NS, Sp, St, TL	DP, Sp	TL = H: Mountains near Arrowtown, Lake County. ACNO: H WELT SP002648 Previous Name and Authority: <i>Myosotis elderi</i> L.B.Moore
<i>Myosotis pulvinaris</i> Hook.f.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp, TL		TL = H, I: Middle Island, alps of Otago / Otago Lake District, alpine. ACNOs: H K000787905, K000787903; I CHR 97409
<i>Myosotis retrorsa</i> Meudt, Prebble & Hindmarsh-Walls		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, NR, NS, NStr, RR, St	DP, Sp	
<i>Myosotis traversii</i> var. <i>cantabrica</i> L.B.Moore		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPT, NR, NS, Sp	DP	
<i>Myriophyllum pedunculatum</i> subsp. <i>novae-zelandiae</i> Orchard		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, RR		
<i>Myriophyllum votschii</i> Schindl.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, RR, Sp	Sp	
<i>Nertera balfouriana</i> Cockayne		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RR, Sp		
<i>Nertera scapanioides</i> Lange		Not Threatened			subpopulations ≤ 15, ≤ 1000 mature individuals in largest subpopulation		Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, RR, Sp		
<i>Notogrammitis ciliata</i> (Colenso) Parris		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, OL, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Notothlaspi rosulatum</i> Hook.f.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, OL, Sp	DP	
<i>Olearia bullata</i> H.D.Wilson & Garn.-Jones		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, TL		TL = L, ISL, ISL?: Flagstaff Hill, Ōtepoti Dunedin / Dunedin ED. ACNOs: L CHR 75715 ; ISL AK 210589 ; ISL? AK 22899
<i>Olearia cymbifolia</i> (Hook.f.) Cheeseman		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, Sp		
<i>Olearia lacunosa</i> Hook.f.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, Sp		
<i>Ourisia confertifolia</i> Arroyo		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, NStr, RR, Sp, St	RR, Sp	
<i>Ourisia macrophylla</i> subsp. <i>lactea</i> (L.B.Moore) Meudt		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, Sp		
<i>Ourisia spathulata</i> Arroyo		Naturally Uncommon				< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, Sp		
<i>Pachycladon enysii</i> (Cheeseman) Heenan & A.D.Mitch.	high alpine cress	Declining				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, Sp		
<i>Pachycladon novae-zelandiae</i> (Hook.f.) Hook.f.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp, TL		TL = H: Mount Alta, Otago. ACNO: H K?
<i>Parietaria debilis</i> G.Forst.		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NR, Sp	DP	
<i>Pellaea caldirupium</i> Brownsey & Lovis		Naturally Uncommon	Yes		250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, Sp	DP	
<i>Phyllachne rubra</i> (Hook.f.) Cheeseman		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, Sp, TL	DP	TL = H: Lake District. ACNO: H K?

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Pilularia novae-hollandiae</i> A.Braun	pillwort	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, NS, RR, Sp		
<i>Pimelea notia</i> C.J.Burrows & Thorsen		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, Sp, TL	DP	TL = H: Remarkables Range, Rastus Burn Recreational Area. ACNO: H OTA 60767
<i>Pimelea sericeovillosa</i> subsp. <i>alta</i> C.J.Burrows		Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, RE, RR, Sp, St, TL	DP	RE = known from Pisa Range. TL = H: Pisa Range, Central Otago. ACNO: H CHR 669170
<i>Pimelea traversii</i> Hook.f. subsp. <i>traversii</i>		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, Sp	DP	
<i>Pittosporum divaricatum</i> Cockayne		Not Threatened			250–20000 mature individuals		Stable: ±10%	Low	Low	DPR, DPS, DPT, PF, Sp	DP, RR	
<i>Plantago obconica</i> Sykes		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, RR, St	DP	
<i>Poa astonii</i> Petrie		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	CI, DPS, DPT, NR, NStr, RR, TL		TL = L: Brighton, near Ōtepoti Dunedin. ACNO: L WELT SP066186
<i>Poa incrassata</i> Petrie		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	DP, RR, Sp	TL = H: Otago, Lake district, alpine. ACNO: H K?
<i>Poa pusilla</i> Berggr.		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, Sp	RR	
<i>Poa pygmaea</i> Buchanan		Naturally Uncommon	Yes	Yes		< 100000 ha	Stable: ±10%	High	High	CI, NS, NStr, RE, RR, St, TL		RE = known from Pisa Range and Mount St Bathans. TL = H, I: Mount Pisa, near Cromwell / Pisa ED. ACNOs: H WELT SP059606 ; I AK 223876 , AK 1902 , AK 223877 , WELT SP015854 , WELT SP066744 , WELT SP066745 , WELT SP066746 , WELT SP066747 , WELT SP066748

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Poa schistacea</i> Edgar & Connor		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, RR, Sp, TL		TL = H, I: "Two mile" Valley, Tāpuae-O-Uenuku Hector Mountains ACNOs: H CHR 395536 A ; I CHR 395536 B , CHR 395537 , CHR 395538
<i>Poa sudicola</i> Edgar		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Medium	DPR, DPS, DPT, NS, NStr, RR, St		
<i>Poa tonsa</i> Edgar		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NS, NStr, Sp, TL	DP, Sp	TL = H, I: Ōmārama Saddle, Central Otago. ACNOs: H CHR 175630 ; I OTA 018377
<i>Potamogeton suboblongus</i> Hagstr.	mud pondweed	Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	Low	RR, DPR, DPT, DPS, Sp	DP, Sp	
<i>Prumnopitys taxifolia</i> (Sol. ex D. Don) de Laub.	matai	Not Threatened			250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, Rel, Sp		
<i>Ranunculus enysii</i> Kirk		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, Sp, TL		TL = I, ISL, T?: summit of Rock and Pillar Range / Carrick Range, near Cromwell / Old Man ED. ACNOs: I CHR 334225 ; ISL AK 4242 , AK 4243 , AK 4245 ; T? WELT SP00347/A , WELT SP000347/B , WELT SP000354 , WELT SP000355/A , WELT SP000355/B , WELT SP000356
<i>Ranunculus limosella</i> F. Muell. ex Kirk	mud buttercup	Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, RR, Sp	SO	
<i>Ranunculus maculatus</i> Cockayne & Allan		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RR, Sp, St, TL	SO	TL = H, I, N: Mount Cardrona / Rock and Pillar Range. ACNOs: H WELT SP000340 ; N CHR 199637 ; I AK 4313
<i>Ranunculus membranifolius</i> (Kirk) Garn.- Jones		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	TL		TL = T?: Valley of the Dart [Dart Valley]. ACNO: WELT SP000357

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Ranunculus pachyrrhizus</i> Hook.f.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, NStr, Sp, TL		TL = H: Otago Lake District. ACNO: H K?
<i>Ranunculus scrithalis</i> Garn.-Jones		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	RR	TL = H: Hummock Peak; Eyre Mountains. ACNO: H OTA 027279
<i>Raoulia apicinigra</i> Kirk		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Low	Medium	DPR, DPS, DPT, NStr, PD, Sp		
<i>Raoulia eximia</i> Hook.f.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, Sp		
<i>Raoulia haastii</i> Hook.f.		Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	Low	RR, Sp, DPS		
<i>Raoulia hectorii</i> var. <i>mollis</i> Buchanan		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL		TL = H: Mount St Bathans. ACNO: H W?
<i>Raoulia petriensis</i> Kirk		Naturally Uncommon				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NS, RR, St, TL		TL = H, S, S?, T?; Mount St Bathans / St Bathans ED. ACNOs: H W?; S AK 10127 ; S? AK 30643 ; T? WELT SP048520
<i>Raoulia subulata</i> Hook.f.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RR, Sp		
<i>Raoulia youngii</i> (Hook.f.) Beauverd		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp, TL		TL = H: mountains above Lake Hāwea. ACNO: H K?
<i>Rostkovia magellanica</i> (Lam.) Hook.f.		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, RR	DP, Sp	
<i>Rubus squarrosus</i> Fritsch	leafless lawyer	Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, Sp		
<i>Rumex flexuosus</i> Spreng.		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, Sp	DP, Sp	
<i>Scandia geniculata</i> (G.Forst.) J.W.Dawson		Declining	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, Sp		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Schoenus maschalinus</i> Roem. & Schult.		Not Threatened				< 100000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, Sp		
<i>Scleranthus brockiei</i> P.A.Will.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, Sp		
<i>Selliera microphylla</i> Colenso		Declining				≤ 1000 ha	Stable: ±10%	Low	Low	DPT, DPS, Sp		
<i>Senecio biserratus</i> Belcher		Declining	Yes		250–20000 mature individuals	NA	Stable: ±10%	Low	Low	DPS, DPT, NStr, PF, Sp	DP	
<i>Senecio matatini</i> subsp. <i>discoideus</i> (Cheeseman) Courtney, de Lange & Pelser		Not Threatened				≤ 1000 ha	Stable: ±10%	Low	Low	DPT, DPS, Sp		Previous Name and Authority: <i>Senecio glaucophyllus</i> subsp. <i>discoideus</i> (Cheeseman) Ornduff
<i>Stackhousia minima</i> Hook.f.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, Sp	DP	
<i>Stylidium subulatum</i> Hook.f.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp	Sp	
<i>Thyridia repens</i> (R.Br.) W.R.Barker & Beardsley		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	CI, DPS, DPT, NStr, PF, RR, Sp	Sp	
<i>Trichomanes colensoi</i> Hook.f.		Not Threatened				≤ 1000 ha	Stable: ±10%	Low	Low	DPT, DPS, DPR, Sp		
<i>Trichomanes endlicherianum</i> C.Presl		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, OL, Sp	DP, Sp	
<i>Veronica biggarii</i> Cockayne		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NR, NStr, RR, Sp, TL	Sp	TL = L, S: originally from Eyre Mountains / Eyre Mountains, Lake Whakatipu, subalpine belt. ACNOs: L CHR 332289 ; S AK 107833
<i>Veronica birleyi</i> N.E.Br.		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, RR, Sp, TL		TL = H, !: Mount Bonpland, near Lake Whakatipu / Dart ED. ACNOs: H K?; I AK 8415

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Veronica chionohebe</i> Garn.-Jones		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	SO	TL = L, L?. Mount Pisa / Mount Pisa, west of Clutha/Mata-au River and north of Cromwell / Pisa ED. ACNOs: L AK 8335 , L? WELT SP014128
<i>Veronica ciliolata</i> (Hook.f.) Cheeseman subsp. <i>ciliolata</i>		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NStr, NStr, Sp		
<i>Veronica ciliolata</i> subsp. <i>fiordensis</i> (Ashwin) Meudt		Naturally Uncommon				< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, Sp		
<i>Veronica cockayneana</i> Cheeseman		Not Threatened				≤ 1000 ha	Stable: ±10%	Medium	Low	DPS, DPR, Sp, NS, TL		TL = H, ISL, T?: Humboldt Mountains, Lake Whakatipu / Serpentine Mountains, Routeburn valley, near Lake Harris / Earnslaw Creek, below the Glacier / Dart ED. ACNOs: H A?; ISL CHR 331810 , CHR 331811 , WELT SP047652 ; T? WELT SP012435
<i>Veronica colostylis</i> Garn.-Jones		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, NStr, Sp		
<i>Veronica hectorii</i> subsp. <i>demissa</i> (G.Simpson) Garn.-Jones		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp, TL		TL = H, I, L, ISL?, T?: ex Rock and Pillar Range / Rock and Pillar ED / Kopuwai Old Man Range, Central Otago. ACNOs: H CHR 48080 A ; I CHR 48080 B ; ISL? AK 22921 ; T? CHR 195571
<i>Veronica macrantha</i> Hook.f. var. <i>macrantha</i>		Not Threatened				< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NS, Sp		
<i>Veronica mooreae</i> (Heads) Garn.-Jones		Not Threatened				< 100000 ha	Stable: ±10%	Low	Medium	DPR, DPS, DPT, NS		

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Veronica petriei</i> (Buchanan) Kirk		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Low	Medium	DPS, DPT, NR, NS, NStr, RR, Sp, St, TL	RR	TL = H, ISL, ISL?, T?: Mount Bonpland, Humboldt Mountains / Dart ED. ACNOs: H OM? ISL WELT SP005119 ; ISL? AK 8283 ; T? WELT SP084567
<i>Veronica pinguifolia</i> Hook.f.		Not Threatened				≤ 1000 ha	Stable: ±10%	Low	Medium	DPT, Sp, NR	Sp	
<i>Veronica planopetiolata</i> G.Simpson & J.S.Thomson		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NR, NS, NStr, Sp, St, TL	RR, Sp	TL = H, I: Hector Col, Matukituki Valley, Mount Aspiring / Arawata ED. ACNOs: H OM? I WELT SP041436
<i>Veronica poppelwellii</i> Cockayne		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp	DP, RR, Sp	
<i>Veronica propinqua</i> Cheeseman		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, NStr, Sp, TL		TL = L: Mount Maungatua / Waipori ED. ACNO: I AK 8258
<i>Veronica rakaiensis</i> J.B.Armstr.		Not Threatened	Yes			< 100000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, Sp, TL		TL = H, T?: Deep Stream, North Otago. ACNOs: H CHR 18230 ; T? CHR 549649
<i>Veronica treadwellii</i> (Cockayne & Allan) Garn.-Jones		Not Threatened				≤ 1000 ha	Stable: ±10%	Low	Medium	DPT, Sp, NR		
<i>Veronica trifida</i> Petrie		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPS, DPT, NR, NS, NStr, RR, Sp, St	DP, RR, Sp	
<i>Viola lyallii</i> Hook.f.	New Zealand violet	Not Threatened				≤ 1000 ha	Stable: ±10%	Low	Low	DPT, DPS, DPR, Sp		
<i>Vittadinia australis</i> A.Rich.	white fuzzweed	Not Threatened	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NR, NStr, Sp	SO	
<i>Zostera muelleri</i> subsp. <i>novazelandica</i> (Setch.) S.W.L.Jacobs	eelgrass	Declining				< 100000 ha	Stable: ±10%	Low	Low	CI, DPS, DPT, EF, PF, RR	DP, RR, Sp	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Naturally Uncommon continued

Name and Authority	Common Name	National Conservation Status	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
TAXONOMICALLY UNRESOLVED (6)												
<i>Anisotome</i> (b) (CHR 511716); "Otago bog")		Naturally Uncommon	Yes	Yes		> 1000 ha	Stable: ±10%	Medium	Medium	DPR, NS, RE, RR, Sp	DP	
<i>Asplenium</i> aff. <i>trichomanes</i> (WELT P031321; "hexaploid")	spleenwort	Not Threatened	Yes		250–20000 mature individuals		Stable: ±10%	Medium	Medium	DPS, DPT, NR, NStr, Sp		Previous Name and Authority: <i>Asplenium</i> aff. <i>trichomanes</i> (AK 168112; "hexaploid") L.
<i>Chaerophyllum</i> aff. <i>colensoi</i> (CHR 215836; "bog")		Naturally Uncommon	Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NS, NStr, RR, Sp, St		
<i>Corybas</i> aff. <i>trilobus</i> (b) (CHR 534742; Trotters Gorge)		Naturally Uncommon				> 1000 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, Sp	DP, Sp	
<i>Ranunculus</i> (c) (CHR 472008; Garvie Range)		Data Deficient	Yes	Yes	250–20000 mature individuals		Stable: ±10%	Medium	Low	DPS, DPT, NS, NStr, RE, RR, Sp, St		
<i>Ranunculus</i> aff. <i>reflexus</i> (CHR 394270; Mt Peel)		Declining	Yes			< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NS, NStr, Sp		

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural state; NStr = Natural Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure?Overseas; TO = Threatened Overseas; TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation; PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype; I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Regionally Non-Resident Native (1)

Taxa whose natural presence in Otago is either discontinuous (Migrant) or sporadic or temporary (Vagrant) or which have succeeded in recently (since 1950) establishing a resident breeding population (Coloniser).

Regional Coloniser (1)

Criteria for Regional Coloniser:

Taxa that otherwise trigger 'Threatened' categories because of small population size, but have arrived without direct or indirect help from humans and have been successfully reproducing in the wild since 1950.

Table 3.5: Regional Coloniser indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
REGIONAL COLONISER (1)													
<i>TAXONOMICALLY DETERMINATE (1)</i>													
<i>Disphyma clavellatum</i> (Haw.) Chinnock		Coloniser										SO	

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural state; NStr = Natural Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure? Overseas; TO = Threatened Overseas; TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation; PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype; I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Regionally Not Threatened (598)

Resident native taxa that have large, stable populations.

Table 3.6: Regionally Not Threatened indigenous vascular plant taxa in Otago

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY NOT THREATENED (598)					
<i>TAXONOMICALLY DETERMINATE (610)</i>					
<i>Abrotanella caespitosa</i> Petrie ex Kirk		Not Threatened	TL		TL = H, L, S?: Mount Kyeburn / St. Mary ED. ACNOs: H W?; L AK 10466 ; WELT SP057804
<i>Abrotanella inconspicua</i> Hook.f.		Not Threatened	TL		TL = H, ISL, TF: Mount Alta. ACNOs: H K? ISL WELT SP057814 ; TF CHR 402986
<i>Acaena anserinifolia</i> (J.R.Forst. & G.Forst.) J.B.Armstr.	bidibidi	Not Threatened			
<i>Acaena caesiiglaucia</i> (Bitter) Bergmans	glaucus bidibid	Not Threatened	DPS, DPT, NStr		
<i>Acaena fissistipula</i> Bitter	bidibidi	Not Threatened	TL		TL = H: Tapuae-o-Uenuku Hector Mountains. ACNO: H TURIC?
<i>Acaena juvenca</i> B.H.Macmill.	bidibidi	Not Threatened	TL		TL = H, I: above Karoro Creek, south of Willsher Bay Reserve / Tahakopa ED. ACNOs: H CHR 316173 A , CHR 316173 B ; I CHR 554414 ; WELT SP078439/A , WELT SP078439/B , AK 176854
<i>Acaena novae-zelandiae</i> Kirk	red bidibid	Not Threatened		SO	
<i>Acaena profundeincisa</i> (Bitter) B.H.Macmill.	bidibidi	Not Threatened			
<i>Acaena saccaticupula</i> Bitter	bidibidi	Not Threatened			
<i>Aciphylla aurea</i> W.R.B.Oliv.	golden speargrass	Not Threatened	TL		TL = H, I (possible): Swampy Hill, Ōtepoti Dunedin. ACNOs: H WELT SP005373/A , WELT SP005373/B ; I (possible) WELT SP013760 , WELT SP013761
<i>Aciphylla crenulata</i> J.B.Armstr.		Not Threatened		DP	
<i>Acrothamnus colensoi</i> (Hook.f.) Quinn		Not Threatened			
<i>Adenochilus gracilis</i> Hook.f.	orchid	Not Threatened			
<i>Adiantum cunninghamii</i> Hook.	maidenhair fern	Not Threatened			
<i>Agrostis muelleriana</i> Vickery		Not Threatened		SO	
<i>Agrostis personata</i> Edgar		Not Threatened			
<i>Alsophila colensoi</i> Hook.f.	mountain tree fern	Not Threatened			
<i>Alsophila smithii</i> (Hook.f.) R.M.Tryon		Not Threatened			
<i>Alsophila tricolor</i> (Colenso) R.M.Tryon		Not Threatened			
<i>Anaphalioides bellidioides</i> (G.Forst.) Glennly	Hell's bells	Not Threatened			
<i>Androstoma empetrifolium</i> Hook.f.	bog mingimingi	Not Threatened			
<i>Anisotome aromatica</i> Hook.f.	aromatic aniseed	Not Threatened	TL		TL = H, H?: Flagstaff Hill, Ōtepoti Dunedin / upper basin of Wilkin River / Tapuae-o-Uenuku Hector Mountains. ACNOs: H CHR 75688 , W?; H? CHR 76104

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Anisotome flexuosa</i> J.W.Dawson		Not Threatened	TL		TL = H: From upper basins of the Wilkin River above the forks. ACNOs: H CHR 76104
<i>Anisotome haastii</i> (F.Muell.) Cockayne & Laing	Haast's carrot	Not Threatened			
<i>Anisotome imbricata</i> (Hook.f.) Cockayne var. <i>imbricata</i>		Not Threatened	TL		TL = H: Otago, dry debris on the alps of the lake district. ACNO: H G-G-263084/1
<i>Anisotome imbricata</i> var. <i>prostrata</i> J.W.Dawson		Not Threatened			
<i>Anthosachne solandri</i> (Steud.) Barkworth & S.W.L.Jacobs	native wheatgrass	Not Threatened	TL	DP	
<i>Apium prostratum</i> subsp. <i>prostratum</i> var. <i>filiforme</i> (A.Rich.) Kirk	New Zealand celery	Not Threatened		SO	
<i>Apodasmia similis</i> (Edgar) B.G.Briggs & L.A.S.Johnson	jointed wire rush	Not Threatened			
<i>Aporostylis bifolia</i> (Hook.f.) Rupp & Hatch	odd-leaved orchid	Not Threatened	TL		TL = H: Otago. ACNO: H K?
<i>Archeria traversii</i> Hook.f. var. <i>traversii</i>		Not Threatened		DPS, DPT, NS, Sp	
<i>Aristotelia fruticosa</i> Hook.f.	mountain wineberry	Not Threatened	TL		TL = H, S, I: Flagstaff Hill, near Ōtepoti Dunedin / Dunedin ED. ACNOs: H CHR 75704 ; S AK 22919 , AK 22917 , AK 22914 , AK 22916 , AK 22915 , AK 22920 , AK 22918 ; I US 2028699
<i>Aristotelia serrata</i> (J.R.Forst. & G.Forst.) W.R.B.Oliv.	wineberry	Not Threatened			
<i>Arthropodium candidum</i> Raoul	small renga lily	Not Threatened			
<i>Asplenium appendiculatum</i> (Labill.) C.Presl subsp. <i>appendiculatum</i>	ground spleenwort	Not Threatened		SO	
<i>Asplenium flabellifolium</i> Cav.	butterfly fern	Not Threatened		SO	
<i>Asplenium flaccidum</i> G.Forst.	drooping spleenwort	Not Threatened		SO	
<i>Asplenium gracillimum</i> Colenso	hen & chicken fern	Not Threatened		SO	
<i>Asplenium hookerianum</i> Colenso	Hooker's spleenwort	Not Threatened			
<i>Asplenium lyallii</i> (Hook.f.) T.Moore	Lyall's spleenwort	Not Threatened			
<i>Asplenium richardii</i> (Hook.f.) Hook.f.	Richard's spleenwort	Not Threatened			
<i>Astelia fragrans</i> Colenso	bush lily	Not Threatened			
<i>Astelia nervosa</i> Hook.f.	mountain astelia	Not Threatened			
<i>Astelia nivicola</i> Cockayne ex Cheeseman var. <i>nivicola</i>		Not Threatened			
<i>Austroblechnum banksii</i> (Hook.f.) Gasper et V.A.O.Dittrich	shore hard fern	Not Threatened			Previous Name and Authority: <i>Blechnum blechnoides</i> (Bory) Keyserl.
<i>Austroblechnum colensoi</i> (Hook.f.) Gasper et V.A.O.Dittrich	Colenso's hard fern	Not Threatened			Previous Name and Authority: <i>Blechnum colensoi</i> (Hook.f.) N.A.Wakef.
<i>Austroblechnum lanceolatum</i> (R.Br.) Gasper et V.A.O.Dittrich	lance fern	Not Threatened		SO	Previous Name and Authority: <i>Blechnum chambersii</i> Tindale

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Austroblechnum penna-marina</i> subsp. <i>alpina</i> (R.Br.) A.R.Field	little hard fern	Not Threatened		SO	Previous Name and Authority: <i>Blechnum penna-marina</i> subsp. <i>alpina</i> T.C.Chambers & P.A.Farrant
<i>Austroderia richardii</i> (Endl.) N.P.Barker & H.P.Linder	toetoe	Not Threatened			
<i>Austrolycopodium fastigiatum</i> (R.Br.) Holub		Not Threatened	TL	SO	TL = T?: Otago. ACNO: LD 1406084 Previous Name and Authority: <i>Lycopodium fastigiatum</i> R.Br.
<i>Azolla rubra</i> R.Br.	Pacific azolla	Not Threatened		SO	
<i>Azorella haastii</i> subsp. <i>cyanopetala</i> (Domin) G.M.Plunkett & A.N.Nicolas		Not Threatened			
<i>Azorella hookeri</i> Drude		Not Threatened			
<i>Brachyglottis bellidioides</i> (Hook.f.) B.Nord. var. <i>bellidioides</i>		Not Threatened			
<i>Brachyglottis bellidioides</i> var. <i>orbiculata</i> (G.Simpson & J.S.Thomson) B.Nord.		Not Threatened	TL		TL = H: Garvie Mountains. ACNO: H CHR?
<i>Brachyglottis buchananii</i> (J.B.Armstr.) B.Nord.		Declining	TL		TL = H, S: Mount Cargill, near Ōtepoti Dunedin, upper forest margins / Dunedin ED. ACNOs: H CHR 29513 ; S AK 35247
<i>Brachyglottis haastii</i> (Hook.f.) B.Nord.		Not Threatened			
<i>Brachyglottis revoluta</i> (Kirk) B.Nord.		Not Threatened			
<i>Brachyscome radicata</i> Hook.f.	button daisy	Not Threatened	TL		TL = H: Cape Wanbrow, Ōamaru, Ōamaru ED. ACNO: H AK 9389
<i>Brachyscome sinclairii</i> Hook.f.	daisy	Not Threatened			
<i>Bulbinella angustifolia</i> (Cockayne & Laing) L.B.Moore	onion	Not Threatened			
<i>Caladenia chlorostyla</i> D.L.Jones, Molloy & M.A.Clem.	finger orchid	Not Threatened			
<i>Caladenia lyallii</i> Hook.f.	cap orchid	Not Threatened	TL	SO?	TL = H: Otago. ACNO: H K?
<i>Callitriche petriei</i> R.Mason subsp. <i>petriei</i>	Petrie's starwort	Not Threatened			
<i>Caltha obtusa</i> Cheeseman	white caltha	Not Threatened	TL		TL = S, S?: St. Bathans and Dunstan Mountains. ACNOs: S WELT SP025743 , S? AK 4363 , WELT SP025745
<i>Calystegia soldanella</i> (L.) R.Br.	shore bindweed	Not Threatened		SO	
<i>Calystegia tuguriorum</i> (G.Forst.) R.Br. ex Hook.f.	climbing convolvulus	Not Threatened		SO	
<i>Cardamine corymbosa</i> Hook.f.	cress	Not Threatened			
<i>Cardamine forsteri</i> Govaerts	cress	Not Threatened			
<i>Cardamine heleniae</i> Heenan	cress	Not Threatened	TL		TL = H: Centre Road, Otago Peninsula. ACNO: H CHR 616824
<i>Carex acicularis</i> Boott	sedge	Not Threatened	TL		
<i>Carex banksiana</i> K.A.Ford	fine-leaved bastard grass	Not Threatened			
<i>Carex breviculmis</i> R.Br.	grassland sedge	Not Threatened		SO	
<i>Carex comans</i> Berggr.	sedge	Not Threatened			
<i>Carex coriacea</i> Hamlin	cutty grass	Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Carex corynoidea</i> K.A.Ford		Not Threatened			
<i>Carex crispa</i> K.A.Ford	hook sedge	Not Threatened			
<i>Carex dissita</i> Sol. ex Boott	forest sedge	Not Threatened			
<i>Carex echinata</i> Murray	star sedge	Not Threatened		SO	
<i>Carex edura</i> K.A.Ford	hook sedge	Not Threatened	TL		TL = ISL, T?: Eweburn Creek, Naseby / Maniototo ED. ACNOs: ISL AK 2339 ; T? WELT SP001388
<i>Carex egmontiana</i> (Hamlin) K.A.Ford	hook sedge	Not Threatened			
<i>Carex flagellifera</i> Colenso	Glen Murray tussock	Not Threatened			
<i>Carex gaudichaudiana</i> Kunth	Gaudichaud's sedge	Not Threatened		SO	
<i>Carex geminata</i> Schkuhr	cutty grass	Not Threatened			
<i>Carex horizontalis</i> (Colenso) K.A.Ford	hook sedge	Not Threatened	TL		TL = S: Otago. ACNO: S CHR 294827
<i>Carex imbecilla</i> K.A.Ford	delicate hook sedge	Not Threatened			
<i>Carex lectissima</i> K.A.Ford	fine-leaved hook sedge	Not Threatened			
<i>Carex megalepis</i> K.A.Ford	Caver's beard	Not Threatened			
<i>Carex minor</i> (Kük.) K.A.Ford	hook sedge	Not Threatened	TL		TL = T?: Rongahere, Tuapeka County. ACNOs: H? WELT SP003134/A , WELT SP003134/B
<i>Carex penalpina</i> K.A.Ford	hook sedge	Not Threatened	TL		TL = T?: Maungatua. ACNO: T? WELT SP001696
<i>Carex punicea</i> K.A.Ford	frost flat hook sedge	Not Threatened			
<i>Carex pyrenaica</i> var. <i>cephalotes</i> (F.Muell.) Kük.	mountain sedge	Not Threatened			
<i>Carex secta</i> Boott	pūrei	Not Threatened			
<i>Carex sinclairii</i> Boott	Sinclair's sedge	Not Threatened			
<i>Carex solandri</i> Boott	forest sedge	Not Threatened			
<i>Carex testacea</i> Sol. ex Boott	speckled sedge	Not Threatened			
<i>Carex uncinata</i> L.f.	hook sedge	Not Threatened		SO	
<i>Carex virgata</i> Sol. ex Boott	swamp sedge	Not Threatened			
<i>Carex wakatipu</i> Petrie	sedge	Not Threatened	TL		TL = S, S?: Ben Lomond, Lake Whakatipu / Shotover ED. ACNOs: S AK 2659 , WELT SP011894 ; S? WELT SP011895
<i>Carex zotovii</i> (Hamlin) K.A.Ford	Zotov's hook sedge	Not Threatened			
<i>Carpha alpina</i> R.Br.	sedge	Not Threatened			
<i>Carpodetus serratus</i> J.R.Forst. & G.Forst.	putaputaweta	Not Threatened			
<i>Celmisia alpina</i> (Kirk) Cheeseman	mountain daisy	Not Threatened			
<i>Celmisia angustifolia</i> Cockayne	strap-leaved daisy	Not Threatened			
<i>Celmisia armstrongii</i> Petrie	Armstrong's mountain daisy	Not Threatened			
<i>Celmisia densiflora</i> Hook.f.	mountain daisy	Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Celmisia durietii</i> Cockayne & Allan	du Rietz's mountain daisy	Not Threatened			
<i>Celmisia glandulosa</i> Hook.f. var. <i>glandulosa</i>	bog mountain daisy	Not Threatened			
<i>Celmisia glandulosa</i> var. <i>longiscapa</i> Cockayne	bog mountain daisy	Not Threatened			
<i>Celmisia gracilentia</i> Hook.f.	common mountain daisy	Not Threatened			
<i>Celmisia haastii</i> Hook.f. var. <i>haastii</i>	Haast's mountain daisy	Not Threatened	TL		TL = L: Otago Lake District, alpine. ACNOs: L K882081
<i>Celmisia hectorii</i> Hook.f.	Hector's daisy	Not Threatened	TL		TL = H: Mount Brewster, Otago-Westland boundary / north-east Otago. ACNO: H K882078
<i>Celmisia laricifolia</i> Hook.f.	needle-leaved mountain daisy	Not Threatened			
<i>Celmisia lyallii</i> Hook.f.	false spaniard	Not Threatened	TL		TL = H: Mount Alta. ACNO: H K?
<i>Celmisia petriei</i> Cheeseman	Petrie's mountain daisy	Not Threatened			
<i>Celmisia ramulosa</i> Hook.f. var. <i>ramulosa</i>	mountain daisy	Not Threatened			
<i>Celmisia semicordata</i> Petrie subsp. <i>semicordata</i>	large mountain daisy	Not Threatened			
<i>Celmisia semicordata</i> subsp. <i>stricta</i> (Cockayne) Given	large mountain daisy	Not Threatened			
<i>Celmisia sessiliflora</i> Hook.f.	white cushion mountain daisy	Not Threatened			
<i>Celmisia verbascifolia</i> Hook.f. subsp. <i>verbascifolia</i>	daisy	Not Threatened			
<i>Celmisia vespertina</i> Given	daisy	Not Threatened		DP	
<i>Celmisia viscosa</i> Hook.f.	sticky mountain daisy	Not Threatened			
<i>Celmisia walkeri</i> Kirk	Walker's mountain daisy	Not Threatened	TL		TL = H, I, ISL (possible): mountains above Lake Harris, Otago-Southland boundary / Dividing range above Lake Harris. ACNOs: H WELT SP003287 ; I CHR 288140 ; ISL (possible) WELT SP004548 , WELT SP045260
<i>Centella uniflora</i> (Colenso) Nannf.	centella	Not Threatened		SO	
<i>Centrolepis ciliata</i> (Hook.f.) Druce	centrolepis	Not Threatened			
<i>Chaerophyllum colensoi</i> (Hook.f.) K.F.Chung var. <i>colensoi</i>	mountain myrrh	Not Threatened			
<i>Chaerophyllum ramosum</i> (Hook.f.) K.F.Chung	apiaceae	Data Deficient	TL		TL = H, S or ISN: Otago, river flats in the Lakes District / Lake Wānaka District. ACNOs: H K?; S or ISN AK 6371
<i>Chiloglottis cornuta</i> Hook.f.	bird orchid	Not Threatened		SO	
<i>Chionochloa conspicua</i> (G.Forst.) Zotov subsp. <i>conspicua</i>	broad-leaved tussock	Not Threatened			
<i>Chionochloa crassiuscula</i> subsp. <i>torta</i> Connor	curly snow tussock	Not Threatened	TL		TL = H: Lake Harris, Routeburn, left Branch. ACNOs: H CHR 9613
<i>Chionochloa macra</i> Zotov	slim snow tussock	Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Chionochloa oreophila</i> (Petrie) Zotov	mountain snow tussock	Not Threatened			
<i>Chionochloa pallens</i> subsp. <i>cadens</i> Connor	mid-ribbed snow tussock	Not Threatened			
<i>Chionochloa rigida</i> (Raoul) Zotov subsp. <i>rigida</i>	narrow-leaved snow tussock	Not Threatened	NStr, TL		TL = L: Otago Lakes District. ACNO: L W?
<i>Chionochloa rigida</i> subsp. <i>amara</i> Connor	narrow-leaved snow tussock	Not Threatened			
<i>Chionochloa rubra</i> subsp. <i>cuprea</i> Connor	copper tussock	Not Threatened	TL		TL = H: Pigroot, 16 miles from Ranfurly. ACNO: H CHR 132481
<i>Clematis foetida</i> Raoul	clematis	Not Threatened			
<i>Clematis marata</i> J.B.Armstr.	clematis	Not Threatened			
<i>Clematis paniculata</i> J.F.Gmel.	white clematis	Not Threatened			
<i>Colobanthus acicularis</i> Hook.f.		Not Threatened			
<i>Colobanthus affinis</i> (Hook.) Hook.f.	colobanthus	Not Threatened		SO	
<i>Colobanthus buchananii</i> Kirk	pin cushion	Not Threatened	TL		TL = H, L, S: Manuherikia Valley / interior of Otago. ACNOs: H W?; L WELT SP050895 ; S AK 4090
<i>Colobanthus canaliculatus</i> Kirk	colobanthus	Not Threatened	TL		TL = H, T?: Central Otago / interior of Otago. ACNOs: H W? T? WELT SP050876
<i>Convolvulus waitaha</i> (Sykes) Heenan, Molloy & de Lange	grass convolvulus	Not Threatened			
<i>Coprosma areolata</i> Cheeseman	thin-leaved coprosma	Not Threatened	TL		TL = S: vicinity of Ōtepoti Dunedin / Dunedin ED. ACNOs: S AK 211646 , AK 211647 , AK 8785
<i>Coprosma atropurpurea</i> (Cockayne & Allan) L.B.Moore	coprosma	Not Threatened			
<i>Coprosma cheesemanii</i> W.R.B.Oliv.	coprosma	Not Threatened			
<i>Coprosma ciliata</i> Hook.f.	coprosma	Not Threatened			
<i>Coprosma colensoi</i> Hook.f.		Not Threatened			
<i>Coprosma crassifolia</i> Colenso	thick leaved coprosma	Not Threatened	TL		TL = T?: Otago. ACNO: T? WELT SP048862
<i>Coprosma crenulata</i> W.R.B.Oliv.	coprosma	Not Threatened			
<i>Coprosma cuneata</i> Hook.f.	coprosma	Not Threatened	TL		TL = H, L, S?, T?: Whisky Gully, near Tapanui. ACNOs: H W? L WELT SP048878/A , WELT SP048878/B , WELT SP048878/C ; T? WELT SP048873/A , WELT SP048873/B ; S? WELT SP048879
<i>Coprosma decurva</i> Heads	coprosma	Not Threatened	TL		TL = H, I: Mount Cargill, Ōtepoti Dunedin, by Bethune's Gully Track / Dunedin ED. ACNOs: H AK 231764 ; I CHR 489340 , NSW 413944; OTA 048469 , WELT SP080001
<i>Coprosma depressa</i> Colenso ex Hook.f.	coprosma	Not Threatened			
<i>Coprosma dumosa</i> (Cheeseman) G.T.Jane	coprosma	Not Threatened			
<i>Coprosma foetidissima</i> J.R.Forst. & G.Forst.	stinkwood	Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Coprosma fowerakeri</i> D.A.Norton & de Lange	Foweraker's coprosma	Not Threatened			
<i>Coprosma linariifolia</i> Hook.f.	yellow wood	Not Threatened			
<i>Coprosma lucida</i> J.R.Forst. & G.Forst.	shining karamu	Not Threatened			
<i>Coprosma niphophila</i> Orchard	creeping coprosma	Not Threatened		SO	
<i>Coprosma perpusilla</i> Colenso subsp. <i>perpusilla</i>	coprosma	Not Threatened		SO	
<i>Coprosma petriei</i> Cheeseman	turfy coprosma	Not Threatened	TL		TL = S: Cromwell / Maniototo Plains / Mount St. Bathans / Maniototo ED / Central Otago ER / St. Bathans ED. ACNOs: S AK 9123, AK 9124 , AK 9125, AK 9126, AK 9127, AK 9128
<i>Coprosma propinqua</i> var. <i>propinqua</i> A.Cunn.	mingimingi	Not Threatened			
<i>Coprosma pseudociliata</i> G.T.Jane	coprosma	Not Threatened			
<i>Coprosma pseudocuneata</i> W.R.B.Oliv. ex Garn.-Jones & Elder		Not Threatened			
<i>Coprosma rhamnoides</i> A.Cunn.	coprosma	Not Threatened			
<i>Coprosma rigida</i> Cheeseman		Not Threatened			
<i>Coprosma rotundifolia</i> A.Cunn.	round leaved coprosma	Not Threatened			
<i>Coprosma rubra</i> Petrie	coprosma	Declining	TL	DPR, DPS, DPT, PF	TL = H, L, S?, T?: Leith Valley, Ōtepoti Dunedin / vicinity of Ōtepoti Dunedin / Dunedin ED. ACNOs: H W?; L WELT SP048848/A , WELT SP048848/B , WELT SP048848/C , WELT SP048848/D , WELT SP048848/E , S? AK 8928 , AK 8929 , AK 8930 , AK 8922 , AK 211963 , AK 8924 , AK 8923 , AK 8926 , AK 8925 , AK 8921 , AK 8927
<i>Coprosma rugosa</i> Cheeseman	coprosma	Not Threatened	TL		TL = S: Otago. ACNOs: S AK 8968 , AK 8969 , AK 8970 , AK 8971
<i>Coprosma serrulata</i> Hook.f. ex Buchanan	coprosma	Not Threatened			
<i>Cordyline australis</i> (G.Forst.) Endl.	cabbage tree	Not Threatened			
<i>Coriaria arborea</i> R.Linds. var. <i>arborea</i>	tutu	Not Threatened			
<i>Coriaria plumosa</i> W.R.B.Oliv.	feathery tutu	Not Threatened	TL		
<i>Coriaria sarmentosa</i> G.Forst.		Not Threatened			
<i>Corokia cotoneaster</i> Raoul	korokio	Not Threatened			
<i>Corybas hatchii</i> Lehnebach	spider orchid	Not Threatened			
<i>Corybas iridescens</i> Irwin & Molloy		Not Threatened			
<i>Corybas macranthus</i> (Hook.f.) Rchb.f.	spider orchid	Not Threatened			
<i>Corybas oblongus</i> (Hook.f.) Rchb.f.		Not Threatened			
<i>Corybas orbiculatus</i> (Colenso) L.B.Moore		Not Threatened			
<i>Corybas trilobus</i> (Hook.f.) Rchb.f.		Not Threatened			
<i>Cotula australis</i> (Spreng.) Hook.f.		Not Threatened		SO	
<i>Cotula coronopifolia</i> L.		Not Threatened		SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Cranfillia deltoidea</i> (Colenso) de Lange et Parris	mountain hard fern	Not Threatened		SO	
<i>Cranfillia fluvialis</i> (R.Br.) Gasper et V.A.O.Dittrich	creek fern	Not Threatened		SO	Previous Name and Authority: <i>Blechnum fluviale</i> (R.Br.) Lowe ex Salomon
<i>Craspedia lanata</i> (Hook.f.) Allan var. <i>lanata</i>		Not Threatened			
<i>Crassula moschata</i> G.Forst.		Not Threatened	Cl, DPS, DPT, NS, NStr, RR	SO	
<i>Crassula sieberiana</i> (Schult. & Schult.f.) Druce		Not Threatened		SO	
<i>Crassula sinclairii</i> (Hook.f.) A.P.Druce & Given		Not Threatened	TL		TL = S, T?: Otago, Waipahi and Lake Waiholo / Gore ED. ACNOs: S AK 4552 ; T? WELT SP050141 , WELT SP050143 , WELT SP050165 , WELT SP050175/A , WELT SP050175/B , WELT SP050176
<i>Dacrycarpus dacrydioides</i> (A.Rich.) de Laub.	kahikatea	Not Threatened			
<i>Dacrydium cupressinum</i> Lamb.	rimu	Not Threatened			
<i>Dendrobium cunninghamii</i> Lindl.		Not Threatened			
<i>Deschampsia tenella</i> Petrie		Not Threatened	TL		TL = L; uncertain type material: Catlins River, Clutha County, on coast. ACNOs: L WELT SP069304/A ; uncertain type material WELT SP069304/B
<i>Dichondra brevifolia</i> Buchanan		Not Threatened	TL		TL = H, T (possible), T?: "Popotunoa, Otago, pastures in swampy places mixed with <i>D. repens</i> ". ACNOs: H OM?l T (possible) WELT SP032646 , T? WELT SP070293
<i>Dichondra repens</i> J.R.Forst. & G.Forst.	Mercury bay weed	Not Threatened		SO	
<i>Dicksonia fibrosa</i> Colenso		Not Threatened			
<i>Dicksonia squarrosa</i> (G.Forst.) Swartz		Not Threatened			
<i>Diphasium scariosum</i> (G.Forst.) Rothm.		Not Threatened		SO	Previous Name and Authority: <i>Lycopodium scariosum</i> G.Forst.
<i>Discaria toumatou</i> Raoul	matagouri	Not Threatened			
<i>Disphyma australe</i> (W.T.Aiton) N.E.Br. subsp. <i>australe</i>	horokaka	Not Threatened			
<i>Dolichoglottis lyallii</i> (Hook.f.) B.Nord.		Not Threatened		DP	
<i>Donatia novae-zelandiae</i> Hook.f.		Not Threatened		SO	
<i>Dracophyllum kirkii</i> Berggr.		Not Threatened			
<i>Dracophyllum longifolium</i> (J.R.Forst. & G.Forst.) R.Br. var. <i>longifolium</i>	inanga	Not Threatened			
<i>Dracophyllum muscoides</i> Hook.f.		Not Threatened	TL		TL = H, S or IS: Mount Alta / Wānaka ED. ACNOs: H K?; I or ISN AK 7046
<i>Dracophyllum prunum</i> W.R.B.Oliv.		Not Threatened			
<i>Dracophyllum rosmarinifolium</i> (G.Forst.) R.Br.		Not Threatened			
<i>Drosera arcturi</i> Hook.		Not Threatened		SO	
<i>Drosera spatulata</i> Labill.		Not Threatened		SO	
<i>Drosera stenopetala</i> Hook.f.		Not Threatened			
<i>Earina autumnalis</i> (G.Forst.) Hook.f.		Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Farina mucronata</i> Lindl.		Not Threatened			
<i>Echinopogon ovatus</i> (G.Forst.) P.Beauv.		Declining		SO	
<i>Elaeocarpus hookerianus</i> Raoul	pokaka	Not Threatened			
<i>Elatine gratioloides</i> A.Cunn.		Not Threatened		SO	
<i>Eleocharis acuta</i> R.Br.		Not Threatened		SO	
<i>Eleocharis gracilis</i> R.Br.		Not Threatened		SO	
<i>Empodisma minus</i> (Hook.f.) L.A.S.Johnson & D.F.Cutler	wire rush	Not Threatened		SO	
<i>Epilobium alsinoides</i> A.Cunn.		Not Threatened			
<i>Epilobium atriplicifolium</i> A.Cunn.		Not Threatened			
<i>Epilobium brunnescens</i> (Cockayne) P.H.Raven & Engelhorn subsp. <i>brunnescens</i>		Not Threatened			
<i>Epilobium brunnescens</i> subsp. <i>minutiflorum</i> (Cockayne) P.H.Raven & Engelhorn		Not Threatened			
<i>Epilobium chlorifolium</i> Hausskn.		Not Threatened			
<i>Epilobium cinereum</i> A.Rich.		Not Threatened		SO	
<i>Epilobium crassum</i> Hook.f.		Not Threatened		DP	
<i>Epilobium glabellum</i> G.Forst.		Not Threatened			
<i>Epilobium macropus</i> Hook.		Not Threatened			
<i>Epilobium melanocaulon</i> Hook.		Not Threatened			
<i>Epilobium nerteroides</i> A.Cunn.		Not Threatened			
<i>Epilobium nummulariifolium</i> A.Cunn.		Not Threatened			
<i>Epilobium pedunculare</i> A.Cunn.		Not Threatened			
<i>Epilobium pernitens</i> Cockayne & Allan		Not Threatened			
<i>Epilobium pubens</i> A.Rich.		Not Threatened			
<i>Epilobium pycnostachyum</i> Hausskn.		Not Threatened			
<i>Epilobium rotundifolium</i> G.Forst.		Not Threatened			
<i>Epilobium tasmanicum</i> Hausskn.		Not Threatened		SO	
<i>Euchiton audax</i> (D.G.Drury) Holub	creeping cudweed	Not Threatened			
<i>Euchiton lateralis</i> (C.J.Webb) Breitw. & J.M.Ward		Not Threatened			
<i>Euchiton limosus</i> (D.G.Drury) Holub		Not Threatened			
<i>Euchiton ruahenicus</i> (D.G.Drury) Breitw. & J.M.Ward		Not Threatened			
<i>Euchiton sphaericus</i> (Willd.) Holub		Not Threatened		SO	
<i>Euphrasia australis</i> Petrie		Not Threatened			
<i>Euphrasia revoluta</i> Hook.f.		Not Threatened			
<i>Euphrasia zelandica</i> Wettst.		Not Threatened			
<i>Festuca novae-zelandiae</i> (Hack.) Cockayne		Not Threatened			
<i>Ficinia nodosa</i> (Rottb.) Goetgh., Muasya & D.A.Simpson	wiwi	Not Threatened	TL	SO	
<i>Forstera sedifolia</i> G.Forst.		Not Threatened			
<i>Forstera tenella</i> Hook.f.		Not Threatened			
<i>Fuchsia excorticata</i> (J.R.Forst. & G.Forst.) L.f.	tree fuchsia	Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Fuchsia perscandens</i> Cockayne & Allan		Not Threatened			
<i>Fuscopora cliffortioides</i> (Hook.f.) Heenan & Smissen	mountain beech	Not Threatened			
<i>Fuscopora fusca</i> (Hook.f.) Heenan & Smissen	red beech	Not Threatened			
<i>Gaimardia setacea</i> Hook.f.		Not Threatened		SO	
<i>Galium perpusillum</i> (Hook.f.) Allan		Not Threatened			
<i>Galium propinquum</i> A.Cunn.		Not Threatened		SO	
<i>Galium trilobum</i> Colenso	native bedstraw	Not Threatened			
<i>Gastrodia cunninghamii</i> Hook.f.		Not Threatened			
<i>Gastrodia molloyi</i> Lehnbach & J.R.Rolfe		Not Threatened			
<i>Gaultheria antipoda</i> G.Forst.		Not Threatened			
<i>Gaultheria crassa</i> Allan		Not Threatened	TL		TL = H: Flagstaff Hill, west of Ōtepoti Dunedin. ACNO: H CHR 93594
<i>Gaultheria depressa</i> Hook.f. var. <i>depressa</i>		Data Deficient		SO	
<i>Gaultheria depressa</i> var. <i>novae-zelandiae</i> D.A.Franklin		Not Threatened			
<i>Gaultheria macrostigma</i> (Colenso) D.J.Middleton		Not Threatened			
<i>Gaultheria parvula</i> D.J.Middleton		Not Threatened			
<i>Gentianella bellidifolia</i> (Hook.f.) Holub		Not Threatened			
<i>Gentianella corymbifera</i> (Kirk) Holub subsp. <i>corymbifera</i>		Not Threatened			
<i>Gentianella corymbifera</i> subsp. <i>gracilis</i> Glenny		Not Threatened			
<i>Gentianella divisa</i> (Kirk) Glenny		Not Threatened	DPR, NR, NS, NStr, Sp		
<i>Gentianella grisebachii</i> (Hook.f.) T.N.Ho		Not Threatened	TL		TL = L, ISL: Lake Harris, Routeburn, Lake Whakatipu. ACNOs: L WELT SP004710 ; ISL WELT SP079965
<i>Gentianella montana</i> (G.Forst.) Holub subsp. <i>montana</i> var. <i>montana</i>		Not Threatened	TL		TL = L, ISL: Lake Harris, Routeburn, west of Lake Whakatipu. ACNOs: L WELT SP004723/A ; ISL WELT SP004723/B
<i>Geranium brevicaule</i> Hook.f.		Not Threatened		SO	
<i>Geum cockaynei</i> (F.Bolle) Molloy & C.J.Webb		Not Threatened			
<i>Geum leiospermum</i> Petrie		Not Threatened	TL		TL = H, L, ISL: Mount Cardrona / upper Waipori, northeast from Lawrence. ACNOs: H W?; L WELT SP030386/A ; ISL WELT SP030386/B
<i>Geum uniflorum</i> Buchanan		Not Threatened			
<i>Gingidia decipiens</i> (Hook.f.) J.W.Dawson		Not Threatened			
<i>Gleichenia alpina</i> R.Br.	alpine tangle fern	Not Threatened		SO	
<i>Glossostigma diandrum</i> (L.) Kuntze		Not Threatened	TL		TL = H, PT, T?: Lake Waiholā, below high tide level, east of Otago. ACNOs: H W?; T? CHR 293989 ; PT CHR 119292
<i>Glossostigma elatinoides</i> Benth. ex Hook.f.		Not Threatened		SO	

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Gonocarpus aggregatus</i> (Buchanan) Orchard		Not Threatened	TL		TL = L, ISL: Lower part of Hunter River, Lake Hāwea / Lakes ER. ACNOs: L WELT SP0407084/A , WELT SP040784/B ; ISL AK 5939 , ISL AK 209568 , WELT SP006882 , WELT SP040817 , WELT SP040822
<i>Gonocarpus micranthus</i> subsp. <i>micranthus</i> Thunb.		Not Threatened		SO	
<i>Gonocarpus montanus</i> (Hook.f.) Orchard		Not Threatened			
<i>Goodenia radicans</i> (Cav.) Pers.	remuremu	Not Threatened			Previous Name and Authority: <i>Selliera radicans</i> Cav.
<i>Griselinia littoralis</i> Raoul	kāpuka	Not Threatened			
<i>Gunnera monoica</i> Raoul		Not Threatened	TL		TL = T?: Otago. ACNO: T? WELT SP025332
<i>Gunnera prorepens</i> Hook.f.		Not Threatened			
<i>Haastia sinclairii</i> var. <i>fulvida</i> Allan		Not Threatened			
<i>Halocarpus bidwillii</i> (Kirk) Quinn		Not Threatened		DP	
<i>Halocarpus biformis</i> (Hook.) Quinn	pink pine	Not Threatened		DP	
<i>Haloragis erecta</i> (Banks ex Murray) Oken subsp. <i>erecta</i>		Not Threatened			
<i>Hectorella caespitosa</i> Hook.f.		Not Threatened	TL		TL = H: Otago Lake District, 4000–6000 ft. ACNOs: H K?
<i>Helichrysum filicaule</i> Hook.f.		Not Threatened			
<i>Helichrysum lanceolatum</i> (Buchanan) Kirk		Not Threatened			
<i>Helichrysum simpsonii</i> Kottaim. subsp. <i>simpsonii</i>		Not Threatened	TL		TL = H, lost?. I, S? T?: Bold Peak, at 1400 m, Lake Whakatipu / Berwick, Taiari Taieri plain. ACNOs: H CHR 76018 ; CHR 154063 Previous Name and Authority: <i>Helichrysum intermedium</i> G.Simpson
<i>Herpolirion novae-zeelandiae</i> Hook.f.		Not Threatened		SO	
<i>Hierochloa novae-zeelandiae</i> Gand.		Not Threatened	TL		TL = H: Ōtepoti Dunedin. ACNO: H LY?
<i>Hierochloa recurvata</i> (Hack.) Zotov		Not Threatened			
<i>Hierochloa redolens</i> (Vahl) Roem. & Schult.		Not Threatened		SO	
<i>Histiopteris incisa</i> (Thunb.) J.Sm.		Not Threatened		SO	
<i>Hoheria angustifolia</i> Raoul		Not Threatened			
<i>Hoheria glabrata</i> Sprague & Summerh.		Not Threatened			
<i>Hoheria lyallii</i> Hook.f.		Not Threatened			
<i>Huperzia australiana</i> (Herter) Holub		Not Threatened		SO	
<i>Hydrocotyle elongata</i> A.Cunn.		Not Threatened			
<i>Hydrocotyle heteromeria</i> A.Rich.		Not Threatened			
<i>Hydrocotyle hydrophila</i> Petrie		Not Threatened	TL		TL = H, L, ISL?: Wickliffe Bay, between the Pyramids, Otago Peninsula / Dunedin ED. ACNOs: H W?; L WELT SP068306 ; ISL? AK 6239
<i>Hydrocotyle microphylla</i> A.Cunn.		Not Threatened			
<i>Hydrocotyle moschata</i> G.Forst. var. <i>moschata</i>		Not Threatened			
<i>Hydrocotyle novae-zeelandiae</i> DC. var. <i>novae-zeelandiae</i>		Not Threatened			
<i>Hydrocotyle novae-zeelandiae</i> var. <i>montana</i> Kirk		Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Hydrocotyle sulcata</i> C.J.Webb & P.N.Johnson		Not Threatened			
<i>Hymenophyllum bivalve</i> (G.Forst.) Sw.	two-valved filmy fern	Not Threatened		SO	
<i>Hymenophyllum demissum</i> (G.Forst.) Sw.	filmy fern	Not Threatened			
<i>Hymenophyllum dilatatum</i> (G.Forst.) Sw.		Not Threatened			
<i>Hymenophyllum flabellatum</i> Labill.		Not Threatened		SO	
<i>Hymenophyllum frankliniae</i> Colenso		Not Threatened			
<i>Hymenophyllum multifidum</i> (G.Forst.) Sw.	sharp-toothed filmy fern	Not Threatened		SO	
<i>Hymenophyllum peltatum</i> (Poir.) Desv.		Not Threatened		SO	
<i>Hymenophyllum pulcherrimum</i> Colenso		Not Threatened			
<i>Hymenophyllum revolutum</i> Colenso		Not Threatened			
<i>Hymenophyllum sanguinolentum</i> (G.Forst.) Sw.		Not Threatened		TO	
<i>Hymenophyllum scabrum</i> A.Rich.		Not Threatened			
<i>Hymenophyllum villosum</i> Colenso		Not Threatened			
<i>Hypericum pusillum</i> Choisy		Not Threatened		SO	
<i>Hypolepis ambigua</i> (A.Rich.) Brownsey & Chinnock		Not Threatened			
<i>Hypolepis millefolium</i> Hook.		Not Threatened			
<i>Hypolepis rufobarbata</i> (Colenso) N.A.Wakef.		Not Threatened		EF	
<i>Ileostylus micranthus</i> (Hook.f.) Tiegh.		Not Threatened		TO	
<i>Isoetes alpina</i> Kirk		Not Threatened			
<i>Isolepis aucklandica</i> Hook.f.		Not Threatened		SO	
<i>Isolepis caligenis</i> (V.J.Cook) Soják		Not Threatened		DP	
<i>Isolepis cernua</i> (Vahl) Roem. & Schult. var. <i>cernua</i>		Not Threatened		SO	
<i>Isolepis habra</i> (Edgar) Soják		Not Threatened		SO	
<i>Juncus antarcticus</i> Hook.f.		Not Threatened		SO	
<i>Juncus edgariae</i> L.A.S.Johnson & K.L.Wilson		Not Threatened			
<i>Juncus novae-zelandiae</i> Hook.f.		Not Threatened			
<i>Juncus pallidus</i> R.Br.		Not Threatened		SO	
<i>Juncus planifolius</i> R.Br.		Not Threatened		SO	
<i>Juncus sarophorus</i> L.A.S.Johnson		Not Threatened		SO	
<i>Kelleria dieffenbachii</i> (Hook.) Endl.		Not Threatened			
<i>Kelleria laxa</i> (Cheeseman) Heads		Not Threatened			
<i>Kelleria villosa</i> var. <i>villosa</i> Berggr.		Not Threatened			
<i>Koeleria cheesemanii</i> (Hack.) Petrie		Not Threatened			
<i>Koeleria lepida</i> (Edgar & A.P.Druce) Barberá, Quintanar, Soreng & P.M.Peterson		Not Threatened			
<i>Koeleria novozelandica</i> Domin		Not Threatened			
<i>Koeleria spicata</i> (L.) Barberá, Quintanar, Soreng & P.M.Peterson		Not Threatened			
<i>Koeleria tenella</i> (Petrie) Barberá, Quintanar, Soreng & P.M.Peterson		Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Korthalsella lindsayi</i> (Oliv.) Engl.		Not Threatened	TL		TL = H: East Taiari/Taiari Bush. ACNO: H K?
<i>Kunzea robusta</i> de Lange & Toelken	rawirinui	Not Threatened		DP, De	
<i>Kunzea serotina</i> de Lange & Toelken	mākahikātoa	Not Threatened		DP, De	
<i>Lachnagrostis lyallii</i> (Hook.f.) Zotov		Not Threatened			
<i>Lachnagrostis pilosa</i> (Buchanan) Edgar subsp. <i>pilosa</i>		Not Threatened			
<i>Lagenophora cuneata</i> Petrie		Not Threatened	TL		TL = H, L, I, ISL: Flagstaff Hill, near Ōtepoti Dunedin. ACNOs: H W?; L WELT SP044165 ; I CHR 333540 ; ISL AK 9346
<i>Lagenophora petiolata</i> Hook.f.		Not Threatened	TL		TL = I, S, S?: Catlins River / Tahakopa ED. ACNOs: I WELT SP044167 ; S AK 9350 ; S? AK 30646
<i>Lagenophora pumila</i> (G.Forst.) Cheeseman		Not Threatened			
<i>Lagenophora strangulata</i> Colenso		Not Threatened			
<i>Lastreopsis hispida</i> (Sw.) Tindale		Not Threatened		SO	
<i>Lecanopteris pustulata</i> (G.Forst.) Perrie & Brownsey subsp. <i>pustulata</i>		Not Threatened		SO	Previous Name and Authority: <i>Microsorium pustulatum</i> (G.Forst.) Copel. subsp. <i>pustulatum</i>
<i>Lemna minor</i> L.	duckweed	Not Threatened		SO	
<i>Lepidothamnus laxifolius</i> (Hook.f.) Quinn	pygmy pine	Not Threatened			
<i>Leptecophylla juniperina</i> (J.R.Forst. & G.Forst.) C.M.Weiller subsp. <i>juniperina</i>		Not Threatened		SO	
<i>Leptinella dioica</i> Hook.f.		Not Threatened			
<i>Leptinella pectinata</i> subsp. <i>villosa</i> (G.Simpson) D.G.Lloyd & C.J.Webb		Not Threatened	TL		TL = L: Mount Roy, Lake Wānaka. ACNOs: L CHR 76029
<i>Leptinella pectinata</i> subsp. <i>willcoxii</i> (Cheeseman) D.G.Lloyd & C.J.Webb		Not Threatened	TL		TL = H, I, L, ISL: near Mount Earnslaw / Upper Route Burn Valley / Dart ED. ACNOs: H A?, CHR 75701 ; I CHR 155497 ; L AK 24966 ; ISL AK 209500
<i>Leptinella squalida</i> subsp. <i>mediana</i> (D.G.Lloyd) D.G.Lloyd & C.J.Webb		Not Threatened			
<i>Leptolepia novae-zelandiae</i> (Colenso) Mett. ex Diels		Not Threatened			
<i>Leptopteris hymenophylloides</i> (A.Rich.) C.Presl		Not Threatened			
<i>Leptopteris superba</i> (Colenso) C.Presl		Not Threatened			
<i>Leptospermum scoparium</i> J.R.Forst. & G.Forst.	mānuka	Not Threatened			
<i>Leptostigma setulosum</i> (Hook.f.) Fosberg		Not Threatened			
<i>Leucogenes grandiceps</i> (Hook.f.) Beauverd		Not Threatened			
<i>Leucopogon fraseri</i> A.Cunn.		Not Threatened		SO	
<i>Libertia ixioides</i> (G.Forst.) Spreng.		Not Threatened			
<i>Libocedrus bidwillii</i> Hook.f.		Not Threatened			
<i>Lilaeopsis novae-zelandiae</i> (Gand.) A.W.Hill		Not Threatened	TL	SO	TL = H: Tomahawk Lagoon, Ōtepoti Dunedin ACNO: H Gandoger?
<i>Limosella australis</i> R.Br.		Not Threatened		SO	Previous Name and Authority: <i>Limosella lineata</i> Gluck
<i>Lobelia angulata</i> G.Forst.		Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Lomaria discolor</i> (G.Forst.) Willd.	crown fern	Not Threatened			Previous Name and Authority: <i>Blechnum discolor</i> (G.Forst.) Keyserl.
<i>Lophozonia menziesii</i> (Hook.f.) Heenan & Smissen	silver beech	Not Threatened			
<i>Luzula banksiana</i> var. <i>migrata</i> (Buchenau) Edgar	wood-rush	Not Threatened			
<i>Luzula crinita</i> var. <i>petrieana</i> (Buchenau) Edgar	wood-rush	Not Threatened			
<i>Luzula pumila</i> Hook.f.	wood-rush	Not Threatened	TL		TL = H, I, L, ISL, T?, uncertain: H Otago Lake District, Mount Cardrona; I Otago Lake District, alpine / Rock and Pillar Range / Wānaka ED. ACNOs: H AK 105078 ; I CHR 491678 ; L WELT SP012356 ; T? CHR 491679 ; ISL WELT SP012355 ; uncertain WELT SP012354
<i>Luzula rufa</i> Edgar var. <i>rufa</i>	wood-rush	Not Threatened			
<i>Luzula traversii</i> (Buchenau) Cheeseman var. <i>traversii</i>	wood-rush	Not Threatened			
<i>Luzuriaga parviflora</i> (Hook.f.) Kunth		Not Threatened		SO	
<i>Marsippospermum gracile</i> (Hook.f.) Buchenau		Not Threatened			
<i>Mazus radicans</i> (Hook.f.) Cheeseman		Not Threatened			
<i>Melicope simplex</i> A.Cunn.	poataniwha	Not Threatened			
<i>Melicytus alpinus</i> (Kirk) Garn.-Jones		Not Threatened			
<i>Melicytus lanceolatus</i> Hook.f.		Not Threatened	TL		TL = H, S: Flagstaff Hill, Ōtepoti Dunedin / Dunedin ED. ACNOs: H CHR 75719 (var. <i>latior</i> G.Simpson & J.S.Thomson); S AK 100240
<i>Melicytus ramiflorus</i> J.R.Forst. & G.Forst. subsp. <i>ramiflorus</i>	mahoe	Not Threatened			
<i>Metrosideros diffusa</i> (G.Forst.) Sm.	white rata	Not Threatened			
<i>Metrosideros umbellata</i> Cav.	southern rata	Not Threatened			
<i>Microlaena avenacea</i> (Raoul) Hook.f.	bush rice grass	Not Threatened		SO	
<i>Microseris scapigera</i> (Sol. ex A.Cunn.) Sch.Bip.	catsear	Not Threatened		DP	
<i>Microtis oligantha</i> L.B.Moore		Not Threatened			
<i>Microtis unifolia</i> (G.Forst.) Rchb.f.		Not Threatened		S?O	
<i>Montia fontana</i> L. subsp. <i>fontana</i>		Not Threatened		SO	
<i>Montia sessiliflora</i> (G.Simpson) Heenan		Not Threatened	TL		TL = L: Cardrona River. ACNO: L CHR 60027
<i>Montitega dealbata</i> (R.Br.) C.M.Weiller		Not Threatened		SO	
<i>Muehlenbeckia australis</i> (G.Forst.) Meisn.	muehlenbeckia vine	Not Threatened		SO	
<i>Muehlenbeckia axillaris</i> (Hook.f.) Endl.		Not Threatened		SO	
<i>Muehlenbeckia complexa</i> (A.Cunn.) Meisn. var. <i>complexa</i>		Not Threatened		SO	
<i>Myoporum laetum</i> G.Forst.	ngaio	Not Threatened			
<i>Myosotis forsteri</i> Lehm.		Not Threatened			
<i>Myriophyllum propinquum</i> A.Cunn.		Not Threatened		SO	
<i>Myriophyllum triphyllum</i> Orchard		Not Threatened			
<i>Myrsine australis</i> (A.Rich.) Allan	mapou	Not Threatened			
<i>Myrsine divaricata</i> A.Cunn.	weeping mapou	Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Myrsine nummularia</i> (Hook.f.) Hook.f.		Not Threatened			
<i>Neomyrtus pedunculata</i> (Hook.f.) Allan	rōhutu	Not Threatened			
<i>Nertera ciliata</i> Kirk		Not Threatened			
<i>Nertera depressa</i> Banks & Sol. ex Gaertn.		Not Threatened		SO	
<i>Nertera villosa</i> B.H.Macmill. & R.Mason		Not Threatened	TL		TL = H: Long Flat, Hunter Valley, Otago. ACNO: H CHR 113477
<i>Notogrammitis angustifolia</i> (Jacq.) Parris		Not Threatened			
<i>Notogrammitis billardiarei</i> (Willd.) Parris		Not Threatened		SO	
<i>Notogrammitis crassior</i> (Kirk) Parris		Not Threatened		SO	
<i>Notogrammitis heterophylla</i> (Labill.) Parris		Not Threatened		SO	
<i>Notogrammitis patagonica</i> (C.Chr.) Parris		Not Threatened		SO	
<i>Olearia arborescens</i> (G.Forst.) Cockayne & Laing		Not Threatened			
<i>Olearia avicenniifolia</i> (Raoul) Hook.f.		Not Threatened			
<i>Olearia ilicifolia</i> Hook.f.		Not Threatened			
<i>Olearia moschata</i> Hook.f.		Not Threatened			
<i>Olearia nummulariifolia</i> (Hook.f.) Hook.f.		Not Threatened			
<i>Ophioglossum coriaceum</i> A.Cunn.		Not Threatened			
<i>Oreobolus impar</i> Edgar	comb sedge	Not Threatened			
<i>Oreobolus pectinatus</i> Hook.f.	comb sedge	Not Threatened			
<i>Oreobolus strictus</i> Berggr.	comb sedge	Not Threatened			
<i>Ourisia caespitosa</i> Hook.f.		Not Threatened			
<i>Ourisia glandulosa</i> Hook.f.		Not Threatened	TL		TL = H: Otago Lake District, alpine. ACNO: H K?
<i>Ourisia macrocarpa</i> Hook.f.		Not Threatened			
<i>Ourisia sessilifolia</i> Hook.f. subsp. <i>sessilifolia</i>		Not Threatened	TL		TL = H: Mount Brewster, on the West Coast–Otago boundary. ACNO: H K?
<i>Oxalis exilis</i> A.Cunn.		Not Threatened		SO	
<i>Oxalis magellanica</i> G.Forst.		Not Threatened		SO	
<i>Ozothamnus vauvilliersii</i> Hombr. & Jacquinot ex Decne.	mountain tauhinu	Not Threatened			
<i>Paesia scaberula</i> (A.Rich.) Kuhn		Not Threatened			
<i>Pakau pennigera</i> (G. Forst.) S.E. Fawc. et A.R. Sm.		Not Threatened		TO	Previous Name and Authority: <i>Pneumatopteris pennigera</i> (G.Forst.) Holttum
<i>Parablechnum minus</i> (R.Br.) Gasper et Salino	swamp kiokio	Not Threatened		SO	Previous Name and Authority: <i>Blechnum minus</i> (R.Br.) Ettingsh.
<i>Parablechnum montanum</i> (T.C. Chambers et P.A.Farrant) Gasper et Salino	mountain kiokio	Not Threatened			Previous Name and Authority: <i>Blechnum montanum</i> T.C.Chambers & P.A.Farrant
<i>Parablechnum novae-zelandiae</i> (T.C.Chambers et P.A.Farrant) Gasper et Salino	common hard fern	Not Threatened			Previous Name and Authority: <i>Blechnum novae-zelandiae</i> T.C.Chambers & P.A.Farrant
<i>Parablechnum procerum</i> (G.Forst.) C.Presl	small kiokio	Not Threatened			Previous Name and Authority: <i>Blechnum procerum</i> (G.Forst.) Sw.

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Parapolystichum glabellum</i> (A.Cunn.) Labiak, Sundue & R.C.Moran		Not Threatened			
<i>Parsonsia capsularis</i> (G.Forst.) R.Br. var. <i>capsularis</i>	New Zealand jasmine	Not Threatened			
<i>Parsonsia heterophylla</i> A.Cunn.		Not Threatened			
<i>Pectinopitys ferruginea</i> (G.Benn. ex D.Don) C.N.Page	miro	Not Threatened			Previous Name and Authority: <i>Prumnopitys ferruginea</i> (D.Don) de Laub.
<i>Pelargonium inodorum</i> Willd.		Naturally Uncommon		DP, EF, SO	
<i>Pellaea rotundifolia</i> (G.Forst.) Hook.	button fern	Not Threatened		TO	
<i>Pennantia corymbosa</i> J.R.Forst. & G.Forst.	kaikomako	Not Threatened			
<i>Pentachondra pumila</i> (J.R.Forst. & G.Forst.) R.Br.		Not Threatened		SO	
<i>Pentapogon aucklandica</i> (Hook.f.) de Lange & L.M.H.Schmid		Not Threatened			
<i>Pentapogon avenoides</i> (Hook.f.) P.M.Peterson, Romasch. & Soreng		Not Threatened			Previous Name and Authority: <i>Deyeuxia avenoides</i> (Hook.f.) Buchanan
<i>Pentapogon crinita</i> (L.f.) P.M.Peterson, Romasch. & Soreng		Not Threatened		EF, SO	Previous Name and Authority: <i>Dichelachne crinita</i> (L.f.) Hook.f.
<i>Phlegmariurus varius</i> (R.Br.) A.R.Field & Bostock		Not Threatened		SO	
<i>Phormium cookianum</i> Le Jol. subsp. <i>cookianum</i>	mountain flax	Not Threatened			
<i>Phormium tenax</i> J.R.Forst. & G.Forst.	flax	Not Threatened		SO	
<i>Phyllachne colensoi</i> (Hook.f.) Berggr.		Not Threatened		SO	
<i>Phyllocladus alpinus</i> Hook.f.		Not Threatened			
<i>Pimelea oreophila</i> C.J.Burrows subsp. <i>oreophila</i>		Not Threatened			
<i>Pimelea oreophila</i> subsp. <i>lepta</i> C.J.Burrows		Not Threatened	TL		TL = H: Taiari/Taieri Ridge, east Otago. ACNO: H OTA 041293
<i>Pittosporum colensoi</i> Hook.f.		Not Threatened			
<i>Pittosporum eugenoides</i> A.Cunn.	lemonwood	Not Threatened			
<i>Pittosporum tenuifolium</i> Sol. ex Gaertn.	kohuhu	Not Threatened			
<i>Plagianthus divaricatus</i> J.R.Forst. & G.Forst.		Not Threatened			
<i>Plagianthus regius</i> (Poit.) Hochr. subsp. <i>regius</i>	lowland ribbonwood	Not Threatened			
<i>Plantago lanigera</i> Hook.f.		Not Threatened	TL		TL = H, ISL, T?: St. Mary ED / Otago Lake District, alpine / Mount Kyeburn / Maniototo. ACNO: H AK 8666 , K000340079?; ISL WELT SP002306 ; T? WELT SP002301 , WELT SP002306
<i>Plantago novae-zelandiae</i> L.B.Moore		Not Threatened	TL		TL = T?: Mount Kyeburn. ACNO: T? WELT SP002320
<i>Plantago raoulii</i> Decne.		Not Threatened			
<i>Plantago triandra</i> Berggr.		Not Threatened			
<i>Plantago udicola</i> Meudt & Garn.-Jones		Not Threatened	DPR, DPS, DPT, NS, RR		
<i>Plantago unibracteata</i> Rahn		Not Threatened	TL		TL = T?: Mount Kyeburn. ACNOs: T? WELT SP002984 , WELT SP002300

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Poa breviglumis</i> Hook.f.		Not Threatened			
<i>Poa buechananii</i> Zotov		Not Threatened			
<i>Poa cita</i> Edgar	silver tussock	Not Threatened	TL		TL = ISL: Otago. ACNO: ISL AK 1876
<i>Poa colensoi</i> Hook.f.		Not Threatened			
<i>Poa hesperia</i> Edgar		Not Threatened			
<i>Poa imbecilla</i> Spreng.		Not Threatened	TL		TL = I, L, I or ISL: Manuherikia Plain, "Vincent Co. & Blacks, same station" / Blacks, Ophir, Manuherikia plain. ACNOs: I WELT SP067003/B ; L WELT SP067003/A ; I or ISL WELT SP06990
<i>Poa kirkii</i> Buchanan		Not Threatened			
<i>Poa matthewsii</i> Petrie		Not Threatened	TL		TL = L, S, ISL: Catlins River, Otago, sea level / Waipahi, S. Otago, on banks of river. ACNOs: L WELT SP066983 , WELT SP066929 ; ISL CHR 6768 ; ; S Herbarium W 1916-0014356
<i>Poa novae-zelandiae</i> Hack.		Not Threatened			
<i>Poa sublimis</i> Edgar		Not Threatened			
<i>Poa subvestita</i> (Hack.) Edgar		Not Threatened			
<i>Podocarpus laetus</i> Hooibr. ex Endl.	Hall's totara	Not Threatened			
<i>Podocarpus nivalis</i> Hook.		Not Threatened			
<i>Podocarpus totara</i> var. <i>totara</i> G.Benn. ex D.Don	tōtara	Not Threatened			
<i>Polystichum cystostegium</i> (Hook.) J.B.Armstr.		Not Threatened			
<i>Polystichum neozelandicum</i> Fée	shield fern	Not Threatened			Previous Name and Authority: <i>Polystichum neozelandicum</i> Fée subsp. <i>neozelandicum</i>
<i>Polystichum vestitum</i> (G.Forst.) C.Presl	prickly shield fern	Not Threatened			
<i>Potamogeton cheesemanii</i> A.Benn.	red pondweed	Not Threatened		SO	
<i>Potentilla anserinoides</i> Raoul		Not Threatened		DP	
<i>Prasophyllum colensoi</i> Hook.f.	leek orchid	Not Threatened			
<i>Pseudodiphasium volubile</i> (G.Forst.) Holub		Not Threatened		SO?	Previous and Name Authority: <i>Lycopodium volubile</i> G.Forst.
<i>Pseudognaphalium lanatum</i> (G.Forst) Smitten, Breitw. & de Lange		Not Threatened			
<i>Pseudopanax arboreus</i> (Murray) Philipson	Five finger	Not Threatened	NR		Indigenous and naturalised populations
<i>Pseudopanax colensoi</i> (Hook.f.) Philipson var. <i>colensoi</i>		Not Threatened			
<i>Pseudopanax colensoi</i> var. <i>ternatus</i> Wardle		Not Threatened			
<i>Pseudopanax crassifolius</i> (Sol. ex A.Cunn.) K.Koch	lancewood	Not Threatened			
<i>Pseudopanax linearis</i> (Hook.f.) K.Koch		Not Threatened			
<i>Pseudowintera colorata</i> (Raoul) Dandy	horopito	Not Threatened			
<i>Pteridium esculentum</i> (G.Forst.) Cockayne		Not Threatened		SO	
<i>Pterophylla racemosa</i> (L.f.) Pilon & H.C.Hopkins	kāmahi	Not Threatened			
<i>Pterostylis areolata</i> Petrie		Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Pterostylis australis</i> Hook.f.		Not Threatened			
<i>Pterostylis banksii</i> A.Cunn.	greenhood orchid	Not Threatened			
<i>Pterostylis graminea</i> Hook.f.		Not Threatened			
<i>Pterostylis montana</i> Hatch		Not Threatened			
<i>Pterostylis venosa</i> Colenso		Not Threatened			
<i>Pyrrosia eleagnifolia</i> (Bory) Hovenkamp		Not Threatened			
<i>Ranunculus acaulis</i> Banks & Sol. ex DC.		Not Threatened		SO	
<i>Ranunculus amphitrichus</i> Colenso	waoriki	Not Threatened		SO	
<i>Ranunculus cheesemanii</i> Kirk		Not Threatened			
<i>Ranunculus crithmifolius</i> Hook.f.		Declining			
<i>Ranunculus foliosus</i> Kirk		Not Threatened	TL		TL = L: Otago. ACNO: L WELT SP000332
<i>Ranunculus glabrifolius</i> Hook.		Not Threatened		SO	
<i>Ranunculus gracilipes</i> Hook.f.		Not Threatened	TL		TL = N, S: Maungatua (Hill) / Mount Maungatua, Taiari/Taiari Country. ACNOs: N CHR 334052 ; S WELT SP000366 , WELT SP000367
<i>Ranunculus multiscapus</i> Hook.f.		Not Threatened			
<i>Ranunculus reflexus</i> Garn.-Jones		Not Threatened	TL		TL = T? or S?, T?: Routeburn, Valley of the Dart (Dart Valley). ACNOs: T? WELT SP000358 ; T? or S? WELT SP000359 , WELT SP000358
<i>Ranunculus sericophyllus</i> Hook.f.		Not Threatened	TL		TL = H, N, lost: snow holes on Mount Brewster and Hopkins River / Bold Peak. ACNOs: H K? lost?; N CHR 76532
<i>Raoulia buchananii</i> Kirk		Not Threatened	TL		TL = S, lost: Mount Alta / Wānaka ED. ACNOs: S AK 10095 , lost?
<i>Raoulia glabra</i> Hook.f.		Not Threatened			
<i>Raoulia grandiflora</i> Hook.f.		Not Threatened			
<i>Raoulia hectorii</i> Hook.f. var. <i>hectorii</i>		Not Threatened	TL		TL = H, T (possible): Otago Lake District "subalpine" / Old Man Range. ACNO: H K?; T (possible): WELT SP046434
<i>Raoulia subsericea</i> Hook.f.		Not Threatened			
<i>Raoulia tenuicaulis</i> Hook.f.		Not Threatened			
<i>Raukawa anomalus</i> (Hook.) A.D.Mitch., Frodin & Heads		Not Threatened			
<i>Raukawa edgerleyi</i> (Hook.f.) Seem.		Declining		DP	
<i>Raukawa simplex</i> (G.Forst.) A.D.Mitch., Frodin & Heads		Not Threatened			
<i>Ripogonum scandens</i> J.R.Forst. & G.Forst.	supplejack	Not Threatened			
<i>Rorippa palustris</i> (L.) Besser		Not Threatened		SO	
<i>Rubus australis</i> G.Forst.	bush lawyer	Not Threatened			
<i>Rubus cissoides</i> A.Cunn.	bush lawyer	Not Threatened			
<i>Rubus schmidelioides</i> A.Cunn. var. <i>schmidelioides</i>	bush lawyer	Not Threatened			
<i>Rubus schmidelioides</i> var. <i>subpauperatus</i> (Cockayne) Allan	bush lawyer	Not Threatened			

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Rumohra adiantiformis</i> (G.Forst.) Ching		Not Threatened			
<i>Ruppia polycarpa</i> R.Mason		Not Threatened		SO	
<i>Rytidosperma australe</i> (Petrie) Connor & Edgar		Not Threatened	TL	SO	TL = H, I, TF: Mount Ida Range / Maniototo County / Macraes. ACNOs: H WELT SP040330 ; I CHR 20141 , WELT SP039845 ; TF CHR 4091
<i>Rytidosperma clavatum</i> (Zotov) Connor & Edgar		Not Threatened			
<i>Rytidosperma corinum</i> Connor & Edgar		Data Deficient			
<i>Rytidosperma gracile</i> (Hook.f.) Connor & Edgar		Not Threatened		SO	
<i>Rytidosperma nigricans</i> (Petrie) Connor & Edgar		Not Threatened			
<i>Rytidosperma setifolium</i> (Hook.f.) Connor & Edgar		Not Threatened			
<i>Rytidosperma unarede</i> (Raoul) Connor & Edgar		Not Threatened			
<i>Salicornia quinqueflora</i> Bunge ex Ung.-Sternb. subsp. <i>quinqueflora</i>		Not Threatened		SO	
<i>Samolus repens</i> var. <i>repens</i> (J.R.Forst. & G.Forst.) Pers.		Not Threatened		SO	
<i>Schefflera digitata</i> J.R.Forst. & G.Forst.	patē	Not Threatened			
<i>Schoenoplectus pungens</i> (Vahl) Palla		Not Threatened		SO	
<i>Schoenus concinnus</i> (Hook.f.) Hook.f.		Not Threatened			
<i>Schoenus pauciflorus</i> (Hook.f.) Hook.f.		Not Threatened			
<i>Scleranthus uniflorus</i> P.A.Will.		Not Threatened			
<i>Senecio glomeratus</i> Poir. subsp. <i>glomeratus</i>		Not Threatened		SO	
<i>Senecio minimus</i> Poir.	fireweed	Not Threatened		SO	
<i>Senecio quadridentatus</i> Labill.	cotton fireweed	Not Threatened		SO	
<i>Senecio wairauensis</i> Belcher	mountain fireweed	Not Threatened			
<i>Solanum laciniatum</i> Aiton	poroporo	Not Threatened		SO	
<i>Sophora microphylla</i> Aiton	kōwhai	Not Threatened			
<i>Spergularia tasmanica</i> (Kindb.) L.G.Adams	New Zealand sea spurrey	Not Threatened		SO	
<i>Stellaria gracilentia</i> Hook.f.	Slender chickweed	Not Threatened			
<i>Stellaria parviflora</i> Hook.f.	New Zealand chickweed	Not Threatened		SO	
<i>Stellaria roughii</i> Hook.f.	scree chickweed	Not Threatened			
<i>Sticherus cunninghamii</i> (Heward ex Hook.) Ching	umbrella fern	Not Threatened			
<i>Streblus heterophyllus</i> (Blume) Corner	small-leaved milk tree	Not Threatened			
<i>Suaeda novae-zelandiae</i> Allan		Not Threatened			
<i>Taraxacum zealandicum</i> Dahlst.	New Zealand dandelion	Declining		SO	Previous Name and Authority: <i>Taraxacum magellanicum</i> Sch.Bip.
<i>Tetragonia trigyna</i> Banks et Sol. ex Hook.f.	native spinach	Not Threatened		SO	Previous Name and Authority: <i>Tetragonia implexicoma</i> (Miq.) Hook.f.

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Thelymitra cyanea</i> (Lindl.) Benth.	swamp sun orchid	Not Threatened		SO	
<i>Thelymitra hatchii</i> L.B.Moore	Hatch's sun orchid	Not Threatened			
<i>Thelymitra longifolia</i> J.R.Forst. & G.Forst.	white sun orchid	Not Threatened			
<i>Thelymitra nervosa</i> Colenso	spotted sun orchid	Not Threatened			
<i>Thelymitra pauciflora</i> R.Br.	sun orchid	Not Threatened		SO	
<i>Thelymitra pulchella</i> Hook.f.	striped sun orchid	Not Threatened			
<i>Tmesipteris elongata</i> P.A.Dang.	fork fern	Not Threatened		SO	
<i>Tmesipteris tannensis</i> (Spreng.) Bernh.	fork fern	Not Threatened			
<i>Trichomanes venosum</i> R.Br.		Not Threatened		SO	
<i>Triglochin striata</i> Ruiz & Pav.	arrow grass	Not Threatened		SO	
<i>Trisetum lepidum</i> Edgar & A.P.Druce		Not Threatened			
<i>Trisetum spicatum</i> (L.) K.Richt.		Not Threatened		SO	
<i>Trisetum tenellum</i> (Petrie) A.W.Hill		Not Threatened			
<i>Typha orientalis</i> C.Presl		Not Threatened		SO	
<i>Urtica ferox</i> G.Forst.	tree nettle	Not Threatened			
<i>Urtica sykesii</i> Grosse-Veldmann & Weigend	scrub nettle	Not Threatened	TL	SO	TL = H: Waipori Falls, approx. 25 km south of Ōtepoti Dunedin. ACNOs: H CHR 546587 A , CHR 546587 B
<i>Utricularia dichotoma</i> Labill.	Bladderwort	Not Threatened		SO	
<i>Veronica buchananii</i> Hook.f.		Not Threatened	TL		TL = H, S, ISL. T?: Otago Lake District, alpine / Waitaki ER / Wānaka ED. ACNOs: H K?; S AK 8146 ; ISL AK 8138 ; T? WELT SP005364
<i>Veronica decora</i> (Ashwin) Garn.-Jones		Not Threatened			
<i>Veronica densifolia</i> (F.Muell.) F.Muell.	hebejeebie	Not Threatened	TL		TL = H, L, ISL: Otago Lake District alpine / peaty ridges at Rough Peaks, Lake Whakatipu / Eyre ED. ACNOs: H K?; L CHR 70216 , CHR 70216 P ; ISL AK 107847
<i>Veronica elliptica</i> G.Forst.		Not Threatened		SO	
<i>Veronica epacridea</i> Hook.f.		Not Threatened			
<i>Veronica hectorii</i> Hook.f. subsp. <i>hectorii</i>		Not Threatened	TL		TL = H: Mount Alta. ACNO: H K?
<i>Veronica lyallii</i> Hook.f.		Not Threatened			
<i>Veronica lycopodioides</i> Hook.f.		Not Threatened			
<i>Veronica odora</i> Hook.f.		Not Threatened			
<i>Veronica pauciramosa</i> (Cockayne & Allan) Garn.-Jones		Not Threatened	TL		TL = L, ISL: upper Routeburn Valley, up to Lake Harris / Dart ED. ACNOs: L W?; ISL AK 107674
<i>Veronica pulvinaris</i> (Hook.f.) Cheeseman		Not Threatened			
<i>Veronica salicifolia</i> G.Forst.		Not Threatened		SO	
<i>Veronica subalpina</i> Cockayne		Not Threatened	TL		TL = H, CT, T?: subalpine scrub head of Estuary Burn, Lake Wānaka / Arawata ED. ACNOs: H CHR 33029 ; CT WELT SP017380/A , WELT SP017381 ; T? CHR 549641

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regionally Not Threatened

Name and Authority	Common Name	National Conservation Status	Regional Qualifiers	National Qualifiers	Notes
<i>Veronica thomsonii</i> (Buchanan) Cheeseman	snow hebe	Not Threatened	TL		TL = L, L?: Mount Pisa, Otago / Mount Alta / Pisa ED. ACNOs: L AK 8335 , WELT SP042922/A ; L? AK 8335
<i>Viola cunninghamii</i> Hook.f.	mountain violet	Not Threatened		SO?	
<i>Viola filicaulis</i> Hook.f.	forest violet	Not Threatened			
<i>Wahlenbergia albomarginata</i> subsp. <i>albomarginata</i> Hook.	New Zealand harebell	Not Threatened			
<i>Wahlenbergia rupestris</i> G.Simpson	white harebell	Not Threatened			TL = H, I: Alexandra, Central Otago; Kopuwai / Old Man Range, near Prophets Rock. ACNOs: H CHR 76430 ; I CHR 550042 , CHR 550043
<i>Waireia stenopetala</i> (Hook.f.) D.L.Jones, M.A.Clem. & Molloy	yellow beaks	Not Threatened			
<i>Wolffia australiana</i> (Benth.) Hartog & Plas	water meal	Not Threatened			
<i>Zotovia colensoi</i> (Hook.f.) Edgar & Connor	grass	Not Threatened			
TAXONOMICALLY UNRESOLVED (3)					
<i>Aciphylla</i> aff. <i>horrida</i> (a) (CHR 511521; Lomond)	speargrass	Not Threatened	DPR, DPS, DPT, NS, NStr	DP	
<i>Hymenophyllum</i> aff. <i>rarum</i> (AK 330262; New Zealand)		Not Threatened			
<i>Poa</i> aff. <i>colensoi</i> (d) (CHR 395473; "common short ligule")		Not Threatened			

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trends; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural State; NStr = National Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Oversea?; S?O = Secure?Overseas; TO = Threatened Overseas' TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation' PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype, I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Assessed taxa not in the New Zealand Threat Classification System (17)

Taxa considered to be in the Otago region but have not been assessed in the New Zealand Threat Classification System (NZTCS) for indigenous vascular plant taxa (de Lange et al. 2024). These taxa are mostly ‘taxonomically indeterminate’, i.e., used loosely to include both undescribed entities which still require formal taxonomic research to confirm their validity and provide them with a formal name and, occasionally, described species whose validity is in question.

Table 4: Assessed indigenous vascular plant taxa in Otago not in NZTCS

Name and Authority	Common Name	Regional Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
REGIONALLY DATA DEFICIENT (9)													
TAXONOMICALLY DETERMINATE (4)													
<i>Carex allanii</i> Hamlin	Allan's sedge	Regionally Data Deficient									TL		TL = H, I: Old Man Range, Clutha Valley. ACNOs: H WELT SP005135/A ; I WELT SP005135/B , WELT SP005135/C , WELT SP005135/D
<i>Carex ambita</i> K.A.Ford		Regionally Data Deficient									DPT, DPT, DPR, NR, Sp, RR		Species described in Ford (2025). The interim threat status recommended by Ford (2025) nationally would be Nationally Vulnerable based on the NZTCS
<i>Prasophyllum elegantissimum</i> sp. nov. Lehnebach	elegant leek orchid	Regionally Data Deficient											Described by Lehnebach et al. 2025. New Zealand Journal of Botany. The authors gave the recently described species an interim threat status of Threatened – Nationally Vulnerable, with the qualifiers DPS, DPT, and Sp.

Continued on next page

Conservation status of indigenous vascular plants in Otago

Assessed taxa but not in NZTCS

Name and Authority	Common Name	Regional Conservation Status	Regional Criteria	National Stronghold	Regional Endemic	Regional Population	Regional Area	Regional Trend	Regional Confidence Population	Regional Confidence Trend	Regional Qualifiers	National Qualifiers	Notes
<i>Veronica matthewsii</i>		Regionally Data Deficient									TL		TL = L: Humboldt Mountains, Dart ED. ACNO: L AK 7955
TAXONOMICALLY UNRESOLVED (5)													
<i>Carex</i> aff. <i>aucklandica</i> "Dunstan"		Regionally Data Deficient		Yes	Yes						NStr, RE		
<i>Celmisia</i> aff. <i>graminifolia</i>		Regionally Data Deficient											
<i>Epilobium</i> "Umbrella"		Regionally Data Deficient											
<i>Montia</i> aff. <i>fontana</i> (CHR 681612; "Otago alpine flush")		Regionally Data Deficient		Yes	Yes						DPS, DPT, NStr, RE, RR, Sp		
<i>Raoulia</i> aff. <i>bryoides</i>		Regionally Data Deficient											
REGIONALLY CRITICAL (3)													
TAXONOMICALLY UNRESOLVED (3)													
<i>Apium</i> "inland saline"		Regionally Critical	A (3)	Yes	Yes		≤ 1 ha		Low	Low	DPS, DPT, NStr, RE, RR, Sp		
<i>Brachyscome</i> "Taiari"		Regionally Critical	A (3)	Yes	Yes		≤ 1 ha		Low	Low	DPR, DPS, DPT, NStr, OL, RE		
<i>Carex pilifolia</i> K.A.Ford		Regionally Critical									DPT, DPT, DPR, NR, Sp, RR		Species described in Ford (2025). The interim threat status recommended by Ford (2025) nationally would be Nationally Critical based on the NZTCS
REGIONALLY ENDANGERED (1)													
TAXONOMICALLY UNRESOLVED (1)													
<i>Stellaria</i> aff. <i>roughii</i> (CHR 595279; "North Otago")		Regionally Endangered	B (3)				≤ 10 ha	Stable: ±10%	Low	Low	DPR, DPS, DPT, RR, Sp		
REGIONALLY NATURALLY UNCOMMON (2)													
TAXONOMICALLY UNRESOLVED (2)													

Continued on next page

Conservation status of indigenous vascular plants in Otago

Assessed taxa but not in NZTCS

<i>Anisotome aromatica</i> var. <i>flabellifolia</i>				Yes			< 100000 ha	Stable: ±10%	Medium	Low	DPR, DPS, DPT, NStr, RR, Sp		
<i>Oxalis</i> aff. <i>magellanica</i> (CHR 472028: "Otago alpine flush")				Yes	Yes		< 100000 ha	Stable: ±10%	Low	Low	DPS, DPT, NS, NStr, RE, RR, Sp		
REGIONALLY NOT THREATENED (2)													
TAXONOMICALLY UNRESOLVED (2)													
<i>Craspedia incana</i> (sensu Allan 1961)		Regionally Not Threatened		Yes			> 1000 ha	Stable: + -10 %	Medium	Medium	DPR, DPS, DPT, NR, NS, NStr, Sp		
<i>Geranium</i> aff. <i>microphyllum</i>		Regionally Not Threatened		Yes			> 1000 ha	Stable: ±10%	Medium	Medium	DPS, DPT, NStr, PF, Sp		

Regional and national qualifiers: CD = Conservation Dependent; DPR = Data Poor Recognition; DPS = Data Poor Size; DPT = Data Poor Trend; De = Designated; EF = Extreme Fluctuations; NR = Natural Range Limit; NS = Natural State; NStr = Natural Stronghold; OL = One Location; PD = Partial Decline; RR = Range Restricted; SO = Secure Overseas; SO? = Secure Overseas?; S?O = Secure?Overseas; TO = Threatened Overseas' TO? = Threatened Overseas?; T?O = Threatened? Overseas; CI = Climate Impact; CRN = Conservation Research Needed; EW = Extinct in the Wild; INC = Increasing; PF = Population Fragmentation' PE = Possibly/Presumed Extinct; RE = Regional Endemic; Rel = Relict; RF = Recruitment Failure; Sp = Biologically Sparse; St = Stable

Type localities: H = Holotype; I = Isotype; S = Syntype; IS = Isosyntype; L = Lectotype; ISL = Isolectotype; N = Neotype; ISN = Isonotype; TF = Type Fragment; NT = Not Typified; ? = uncertainty on locality type; T? = where type was mentioned but not described further. Abbreviations for Herbarium are: AD = State Herbarium of South Australia; AK = Auckland War Memorial Museum Herbarium; BD = DSIR Botany Division, now in CHR; CHR = Allan Herbarium; K = Royal Botanic Gardens Kew; LY = Claude Bernard University; MO = Missouri Botanical Garden; NSW = Royal Botanic Gardens, National Herbarium of New South Wales; OM = Otago Museum, now in either WELT or OTA; OTA = Otago Regional Herbarium; W = Wellington Dominion Museum, now in WELT; WELT = Museum of New Zealand Te Papa Tongarewa. ACNO = Accession Number

Adventive indigenous vascular plant taxa from Aotearoa New Zealand reproducing in the wild in Otago.

Indigenous Aotearoa New Zealand taxa introduced to Otago that are wild and reproducing but are not considered native to the region

Table 5: Adventive indigenous vascular plant taxa from Aotearoa New Zealand that have been introduced to Otago

Name and Authority	Common Name	National Conservation Status	Notes
TAXONOMICALLY DETERMINATE			
<i>Brachyglottis repanda</i> J.R.Forst. & G.Forst.	rangiora	Not Threatened	In the South Island occurs in northwest Nelson to just south of Greymouth in the west, and near Kekerengu in the east. Naturalised on Banks Peninsula, Otago Peninsula, and on Stewart Island at Oban
<i>Coprosma grandifolia</i> Hook.f.	large-leaved coprosma	Not Threatened	Naturally occurs on the North and South Islands. In the South Island extending to Lake lanthe in the west and the Marlborough Sounds in the east. Naturalised populations are common round settled areas, particularly in eastern Otago
<i>Coprosma repens</i> Hook.f	taupata	Not Threatened	Occurs naturally on the Three Kings, North and South Islands as far south as Greymouth in the west and Rarangi in the east but now extensively naturalised throughout the South Island, Stewart and Chatham Islands
<i>Coprosma robusta</i> Raoul	karamu	Not Threatened	Found in North and South Islands south to Banks Peninsula. Naturalised populations occur in Otago and Southland (typically around planting sites).
<i>Hoheria sexstylosa</i> Colenso	lacebark	Not Threatened	Naturally occurs probably as far south as Banks Peninsula but distinguishing between natural populations and those arising from planted individuals is difficult. Now common around settled areas in eastern Otago.
<i>Metrosideros excelsa</i> Sol. ex Gaertn.	pōhutukawa	Nationally Vulnerable	Naturally occurring north of Poverty Bay and north Taranaki, but can be now found as far south as Ōtepoti Dunedin where trees regularly produce wild seedlings
<i>Olearia paniculata</i> (J.R.Forst. & G.Forst.) Druce	akeake	Not Threatened	Occurs naturally on both the North and South Island from East Cape to south Canterbury. Widely planted in eastern Otago where occasional naturalised populations now occur.
<i>Pseudopanax laetus</i> (Kirk) Philipson		Declining	Occurs naturally in the northern half of the North Island but has naturalised around Ōtepoti Dunedin and elsewhere from introduced plants

Discussion

Regional threat assessments have been completed by regional councils in Aotearoa New Zealand, with the resulting regional threat lists being used as a tool to help maintain indigenous biodiversity. This report is an update to the first regional assessment of the conservation status of indigenous vascular plant taxa in Otago. A total of 1307 indigenous vascular plant taxa were recorded from the national assessment (de Lange et al 2024). Of these indigenous vascular taxa, 153 were Regionally Data Deficient, 248 were Regionally Threatened, 297 were Regionally At Risk, one was a Regionally Non-resident Native, and 598 Regionally Not Threatened. The panel also assessed 17 taxa not included in the national assessment of indigenous vascular plants. An additional 10 taxa were Regionally Extirpated (likely now extinct in Otago).

Regionally Extirpated indigenous vascular plant taxa

The number of regionally extirpated indigenous vascular plant taxa in Otago is 10 (Table 1). These include nine regional extirpations and one national extinction. Of the nine regional extirpations, six were in the Nationally Threatened categories (Nationally Critical = 3; Nationally Endangered = 1; Nationally Vulnerable = 2), three were At Risk (both Declining). A total of five taxa were at their historical – or indigenous – range, the inferred range of the taxon in pre-human times meet its natural limit in the region. For the nationally extinct taxon, *Stellaria elatinoides*, type gatherings and notes in the literature indicate that the species was in Otago (Heenan 2019). While *S. elatinoides* is currently classified in the national assessment and implied to be Globally Extinct, this taxon is not included in *Stellaria multiflora* subsp. *multiflora* which is widespread but uncommon in eastern and southern Australia (Heenan 2019).

Regionally Data Deficient indigenous vascular plant taxa

In Otago, 153 indigenous vascular plant taxa were identified as Regionally Data Deficient (Table 2). These taxa are suspected to be threatened or, in some instances, possibly extinct in Otago but are not definitely known to belong to any category due to a lack of current information about their distribution and abundance (Rolfe et al. 2022). The percentage of the total number of indigenous vascular plant taxa in Otago from the national assessment that were Regionally Data Deficient species was 11.4%.

Although the true status of Regionally Data Deficient taxa will span the entire range of available categories in Otago, like in national assessments (Rolfe et al. 2022) and globally in the International Union for Conservation of Nature (IUCN Standards and Petition Committee, 2023), taxa in this list are mainly in this status because they are very seldom

seen, so most are likely to end up being considered threatened and some may already be extinct. In the national assessment the collection of sufficient demographic data to allow evaluation is considered a high priority for 'Data Deficient' taxa, as such data may confirm whether these taxa are 'Threatened' or 'At Risk' (Rolfe et al. 2022).

Regionally Threatened indigenous vascular plant taxa

Two hundred forty-eight indigenous vascular plant taxa from the national assessment were assessed as Regionally Threatened (Table 3.5). The percentage of Regionally Threatened taxa was 19.1%. These taxa are grouped into the three categories: Regionally Critical with 98 taxa, Regionally Endangered with 77 taxa, and Regionally Vulnerable with 73 taxa. Generally, Regionally Threatened taxa were more severely threatened in Otago than they are in the national assessments.

Regionally At Risk indigenous vascular plant taxa

The number of Regionally At Risk indigenous vascular plant taxa in Otago from the national assessment was 297 (22.8%; Tables 3.4.1 and 3.4.2). The percentage of Regionally Declining was 4.1% and Regionally Naturally Uncommon was 18.6%. While taxa that qualify as Regionally At Risk do not meet the criteria for any of the Regionally Threatened categories, they are declining (though buffered by a large total population size and/or a slow decline rate), biologically scarce, recovering from a previously threatened status, or survive only in relictual (surviving remnant) populations (Townsend et al. 2008; Rolfe et al. 2022).

Regionally At Risk taxa are grouped into two statuses only: Regionally Declining with 54 taxa, and Regionally Naturally Uncommon with 243 taxa. Compared to the national assessment for indigenous vascular plant taxa (de Lange et al. 2024), no Regionally Relict or Regionally Increasing were assessed.

Regionally Not Threatened indigenous vascular plant taxa

In Otago, 598 indigenous vascular plant taxa were identified that were Regionally Not Threatened (Table 3.6).

Regionally Non-resident indigenous vascular plant taxa

The only indigenous vascular plant taxa to Otago that was in the non-resident category was *Disphyma clavellatum* (Table 3.5). This taxon was considered to be a Regional Coloniser, like its national status (de Lange et al. 2024), because it established without direct or indirect help from humans and has been successfully reproducing in the wild

since 1950, and otherwise would have triggered a 'Threatened' category due to its small population size.

Assessed indigenous vascular plant taxa not in the New Zealand Threat Classification System

Seventeen taxa were assessed to be legitimate taxon by the expert panel but were not included in the NZTCS (Table 4). Of these taxa, nine were considered Regionally Deficient, three were Regionally Critical, one was Regionally Endangered, two were Regionally Naturally Uncommon, and two were Regionally Not Threatened.

Adventive indigenous vascular plant taxa

While several adventive indigenous vascular taxa are found in Otago, common examples are provided in Table 5. These indigenous Aotearoa New Zealand taxa are those introduced to the region that are wild and reproducing but were considered not to be native to Otago (see Table 5 for more details).

Select regional qualifiers for indigenous vascular plant taxa discussion

Otago was identified as a National Stronghold (i.e., containing > 20% of the national population) for 330 of Regionally Threatened and Regionally At Risk taxa. For taxa with National Strongholds in Otago, 39 were identified as not being found elsewhere, i.e., they are Regional Endemics. Of these Regional Endemics there were more in the Regional Threatened category with 20 taxa (Regionally Critical = 13; Regionally Endangered = 4; Regionally Vulnerable = 3), than in the Regionally At Risk category with 16 taxa (Regionally Declining = 3; Regionally Naturally Uncommon = 12); four taxon were assessed as in the Regionally Data Deficient category.

Regionally Threatened and Regionally At Risk taxa in Otago included 220 taxa at their Natural Range limits in the north and south, not including Regional Endemics. Such information could potentially be used to identify sites that may require monitoring or management; for example, to understand or to mitigate the effects of human-induced climate change on these taxa. Note that for other Regional Categories (e.g., Regionally Data Deficient, Regionally Not Threatened) were not considered for Natural Range limits, at this stage.

The number of indigenous vascular plant taxa with the One Location qualifier in the Otago region is 44. When assessing the One Location qualifier for taxa, there were eight Regional Endemics, of which six taxa were assessed as being Regionally Critical, one was assessed as Regionally Endangered, and one was assessed as being Regionally

Vulnerable. The number of taxa with only One Location in Otago but also found outside the region was 36.

In the Otago region the number of taxa identified with type localities was identified as 280 (Tables 1–4). This included 184 taxa with holotypes (or possible holotypes) and 54 taxa with isotypes (or possible isotypes). Although the number of type localities identified in the region was high, its likely more type specimens are from the region.

Increased number of indigenous vascular plants since initial report

This report is an update on the first regional conservation status of indigenous vascular plant taxa in Otago from March, 2024. Although all efforts were taken to be as comprehensive as possible in previous initial assessment, it was acknowledged that some taxa may have been missed in this process. Over 60 additional taxa have been identified as being in the region, many being reported by interested people or group. We encourage further sightings to be reported to authors of this report. It is anticipated that future iterations of threat assessments for indigenous vascular plants in the Otago region may include additional taxa and/or removal of others.

A consistent framework was followed to assign the threat status, trends and qualifiers to taxa (Crisp et al. in press), like national assessments as part of the NZTCS (sensu Molloy et al. 2002; Townsend et al. 2008; Rolfe et al. 2022). This included taking great care to consult online data repositories, the relevant literature – both grey and published – and experts, where appropriate. However, we do acknowledge that further sightings may change the status, trends, and qualifiers in future iterations of this report.

Summary

The Department of Conservation – Te Papa Atawhai is tasked with managing indigenous taxa nationally under the Wildlife Act, but regional and district councils have a statutory obligation to protect and maintain under the RMA, including to manage the habitats of Threatened taxa. By understanding regional population sizes and having a knowledge of habitats of threatened taxa, threats can be managed and their recovery supported. For example, this includes for informing Assessments of Environmental Effects conducted through RMA consenting processes; identification of ecologically significant areas as provided for in the proposed Otago Regional Policy Statement and National Policy Statement for Indigenous Biodiversity as they include criteria for include for taxa that are only found in the region (i.e., regional endemics), have distribution limits in the region, have type localities in the region, and/or regionally uncommon species; and for the prioritisation of conservation activities undertaken by regional councils, territorial

authorities and unitary councils, such as monitoring, pest animal and plant control or eradication, and restoration programmes. Potential benefits to be gained from assessing the threat to indigenous taxa at a regional scale, as well as the national scale include:

- improved knowledge of the status of taxa across the landscape,
- direction for local government and community groups to prioritise conservation actions that can work in synergy with or provide additionality to the work of DOC,
- an improved ability to protect taxa through regulatory processes, and
- improved national conservation assessments of species through greater local input.

Acknowledgements

Thanks to Philippa Crisp and Roger Uys from Greater Wellington Regional Council and Sabine Melzer from Auckland Council for advice on the regional conservation status process, Pascale Michel from the Department of Conservation | Te Papa Atawhai (DOC) for advice on the national assessments and the regional conservation status process, Pat Enright for compiling a list of indigenous vascular plant taxa to review against our initial list for Otago, Cara Lisa-Schloots who wrote a review article of the initial regional conservation status in the New Zealand Native Orchid Journal with suggestions for additional orchids to include, Janice Lord and Aimee Pritchard from the University of Otago – Ōtākou Whakaihu Waka (UoO) for compiling a list of type localities and indigenous vascular plant taxa, John Steel from the UoO for assisting Janice Lord and Aimee Pritchard on the list for indigenous vascular plant taxa, Peter Johnson from Manaaki Whenua – Landcare Research (MWLR) for advice on plant taxa, Leon Perrie for advice on plant taxa and for providing information on type localities from the Museum of New Zealand | Te Papa Tongarewa, Aaron Wilton and Peter Heenan from MWLR for providing information on type localities from the Allan Herbarium, Auckland Museum War Memorial Museum | Tāmaki Paenga Hira for information on type localities, Jerry Cooper, Aaron Wilton (both MWLR) and Helen Greenep from Environment Canterbury for information and discussions on types localities from the Global Biodiversity Information Facility and the Atlas of Living Australia, Jane Gosden from the University of Canterbury – Te Whare Wānanga o Waitaha (UoC) for advice on plant taxa particularly *Celmisia*, Kerry Ford from MWLR for advice on plant taxa particularly *Carex* taxa, Jesse Bythell for discussions about the New Zealand Plant Conservation Network website and indigenous vascular plant species lists, Kelvin Lloyd for advice on distribution and abundance of some plant taxa, Pieter Pelser and Matthew Walters from the UoC for discussions on plants and regional conservation statuses, Zoe Lunniss from the Dunedin City Council for attending a day of the regional conservation assessment, Nathan Whitmore from Reproducible© for the development of the dashboard for the locally-operated assessments that expediated the regional threat status and trends assessments for this large group of taxa, Rod Hitchmough who was formerly at DOC for advice on regional- and national-qualifiers, Ciaran Campbell and Tim Ware from the Otago Regional Council for editorial advice and discussion on regional threat assessments, and other Council staff that provided support for these assessments. Thanks also to the those who collected information on indigenous vascular plant taxa who posted this information on open access databases, and the right holders for the type locality information accessed through online databases: Manaaki Whenua – Landcare Research, United Herbaria of the

University and ETH Zurich, Board of the Botanic Gardens and State Herbarium, Royal Botanic Gardens Board, Missouri Botanical Garden, and the Naturalis Biodiversity Center. Jeremy Rolfe, who was formerly at DOC, led the development of this systematic approach to assessing the regional conservation status for indigenous species.

References

- Allan H.H. (1961). Flora of New Zealand, Volume 1, DSIR, Government Printer, Wellington
- Belbin, L., Wallis, E., Hobern, D., Zerger, A. (2021). The Atlas of Living Australia: History, current state and future directions. Biodiversity Data Journal 9: e65023. DOI: <https://doi.org/10.3897/BDJ.9.e65023>
- Bibby, C.J. (1997). Macraes Ecological District: Survey report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme. Department of Conservation, Dunedin. 158 pp.
- Bloxham, M., Woolly, J., Dunn, N., Chaffe, A., Melzer, S. (2023). Conservation status of freshwater fishes in Tāmaki Makaurau/Auckland. Auckland Council Technical Report, TR2023/13. 36 p.
- Breitwieser, I., Heenan, P.J., Nelson, W.A., Wilton, A.D. eds. (2023) Flora of New Zealand Online. Accessed at: www.nzflora.info
- Breitwieser, I., Ford, K.A. (2022). Four new species of *Craspedia* (Compositae/Asteraceae, Gnaphalieae) from the South Island of New Zealand, all characterised by dark red-purple anthers. New Zealand Journal of Botany, 61(2–3): 131–157.
- Brumley, C.F., Stirling, M.W., Manning, M.S. (1986). Old Man Ecological District: Survey report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme Series No 3. Department of Land and Survey, Wellington. 174 p.
- Burrows, C.J. (2008). Genus *Pimelea* (Thymelaeaceae) in New Zealand 1. The taxonomic treatment of seven endemic, glabrous-leaved species. New Zealand Journal of Botany 46: 127–176.
- Burrows, C.J. (2009). Genus *Pimelea* (Thymelaeaceae) in New Zealand 2. The endemic *Pimelea prostrata* and *Pimelea urvilliana* species complexes. New Zealand Journal of Botany 47: 163–229.

Burrows, C.J. (2011). Genus *Pimelea* (Thymelaeaceae) in New Zealand 4. The taxonomic treatment of ten endemic abaxially hairy-leaved species. *New Zealand Journal of Botany* 49(1): 41–106.

Carter, J. (1994). Waipori Ecological District: A survey report for the Protected Natural Area Programme. New Zealand Protected Natural Areas Programme Series No 24. Department of Conservation, Dunedin. 166 p.

Chang, W., Cheng, J., Allaire, J., Sievert, C., Schloerke, B., Xie, Y., Allen, J., McPherson, J., Dipert, A., Borges, B. (2021). shiny: Web Application Framework for R. R package version 1.7.1.

Cheng, J., Karambelkar, B., Xie, Y. (2022). leaflet: Create Interactive Web Maps with the JavaScript ‘Leaflet’ Library. R package version 2.1.1, <https://CRAN.R-project.org/package=leaflet>

Comrie, J. (1992). Dansey Ecological District: Survey report for the Protected Natural Area Programme. New Zealand Protected Natural Areas Programme Series No 23. Department of Conservation, Dunedin. 106 p.

Crisp, P. (2020). Conservation status of indigenous vascular plant species in the Wellington region. Greater Wellington Regional Council Publication No. GW/ESCI-G-20/20 Wellington. 39 p.

Crisp, P., Hitchmough, R., Newman, D., Adams, L., Lennon, O., Woolley, C., Hulme-Moir, A., Bell, T., Herbert, S., Spearpoint, O., Nelson, N. (2022a). Conservation status of reptile species in the Wellington region. Greater Wellington Regional Council, Publication No. GW/ESCI-G-23/03, Wellington. 23 p.

Crisp, P., O'Donnell, C., Pryde, M., Ryan, J., Spearpoint, O. (2023). Conservation status of bat species in the Wellington region. Greater Wellington Regional Council, Publication No. GW/ESCI-G-23/01, Wellington. 13 p.

Crisp, P., Jarvie, S., Melzer, S., Michel, P., Uy, P. (in press). Regional Threat Classification of Aotearoa New Zealand manual. Department of Conservation, Wellington.

Crisp, P., Robertson, H., McArthur, N., Cotter, S. (2024). Conservation status of bird in the Wellington region. Greater Wellington Regional Council, Publication No. GW/KI-G-23/21, Wellington. 50 p.

Crisp, P., Perrie, A., Morar, A., Royal, C. (2022b). Conservation status of indigenous freshwater fish in the Wellington region. Greater Wellington Regional Council Publication No. GW/ESCI-T-22/02, Wellington. 8 p.

de Lange, P.J., Blanchon, D.J. (2023). New combinations in *Helichrysum simpsonii* Kottaim. for the taxa described as *H. selago* var. *acutum* Cheeseman and *H. selago* var. *tumidum* Cheeseman (Asteraceae) from Aotearoa / New Zealand. Ukrainian Botanical Journal 80(4): 301–305.

de Lange, P.J., Heenan, P.B., Houlston, G.J., Rolfe, J.R., Mitchell, A.D. (2013). New *Lepidium* (Brassicaceae) from New Zealand. PhytoKeys 24: 1–147.

de Lange, P.J., Rolfe, J.R., Barkla, J.W., Courtney, S.P., Champion, P.D., Perrie, L.R., Beadel, S.M., Ford, K.A., Breitwieser, I., Schonberger, I., Hindmarsh-Walls, R., Heenan, P.B., Ladley, K. (2018). Conservation status of New Zealand indigenous vascular plants, 2017. New Zealand Threat Classification Series 22. Department of Conservation, Wellington. 82 p.

de Lange, P.J., Gosden, J., Courtney, S.P., Fergus, A.J., Barkla, J.W., Beadel, S.M., Champion, P.D., Hindmarsh-Walls, R., Mekan, T., Michel, P. (2024). Conservation status of New Zealand indigenous vascular plants, 2023. New Zealand Threat Classification Series 23. Department of Conservation, Wellington. 105 p.

Dickinson, K.J.M. (1988). Umbrella Ecological District: Survey report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme Series No 7. Department of Conservation, Wellington. 179 p.

Dickinson, K.J.M. (1998). Nokomai Ecological District: Survey report for the Protected Natural Area Programme. New Zealand Protected Natural Areas Programme Series No 9. Department of Conservation, Wellington. 139 p.

Druce, T. (2006). Plant checklist for mountains of Inland Otago and Northern Southland. Druce list number: 292. Gridref: S.

Edgar, E., Connor, H.E. (2010). Flora of New Zealand Volume 5 (2nd edition), Manaaki Whenua Press, Lincoln.

Esri., i-cubed., USDA., USGS., AEX., GeoEye., Getmapping., Aerogrid., IGN., IGP., UPR., EGP., GIS User Community. (2023). Map tiles by Stamen Design, CC by 3.0.

Fagan, B., Pillai, D. (1992). Manorburn Ecological District: Survey report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme Series No 22. Department of Conservation, Wellington. 150 p.

Firke, S. (2021). janitor: simple tools for examining and cleaning dirty data. R package version 2.1.0, <https://CRAN.R-project.org/package=janitor>

Ford, K.A. (2025). A taxonomic revision of New Zealand species of *Carex* section *Inversae* Kük. (*Carex* subgenus *Vignea*, Cyperaceae). New Zealand Journal of Botany: 1–73 (online) DOI: 10.1080/0028825X.2025.2458506

GBIF.org (2023). GBIF Occurrence Download. DOI: <https://doi.org/10.15468/dl.t67cvv>

Grolemund G., Wickham H. (2011). Dates and times made easy with lubridate. Journal of Statistical Software 40(3): 1–25.

Grove, P. (1994). Hawkdun Ecological District: Survey report for the Protected Natural Area Programme. New Zealand Protected Natural Areas Programme Series No 25. Department of Conservation, Dunedin. 118 p.

Grove, P. (1994). Maniototo Ecological District: Survey report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme Series No 30 Department of Conservation, Dunedin. 96 p.

Heads, M. (1998). Biodiversity in the New Zealand divaricating tree daisies: *Olearia* sect. nov. (Compositae). Botanical Journal of the Linnean Society 127(3): 239–285.

Heads, M.J. (1990). A revision of the *Kelleria* and *Drapetes* (Thymelaeaceae). Australian Systematic Botany 3: 595–652.

Heenan, P.B. (2017). A taxonomic revision of *Cardamine* L. (Brassicaceae) in New Zealand. Phytotaxa 330(1): 001–154.

Heenan, P.B. (2019). Taxonomic notes on the New Zealand flora: the status of the extinct herb *Stellaria elatinoides* (Carophyllaceae) and recognition of *Stellaria multiflora* subsp. *multiflora* from New Zealand. *New Zealand Journal of Botany* 57: 309–315.

Hijmans, R. (2022). terra: Spatial Data Analysis. R package version 1.5-21, [https://CRAN-R-project.org/package=terra](https://CRAN.R-project.org/package=terra)

Iannone, R., Allaire, J., Borges, B. (2020). flexdashboard: R Markdown Format for Flexible Dashboards. R package version 0.5.2

IUCN Standards and Petitions Committee. (2022). *Guidelines for using the IUCN Red List Categories and Criteria. Prepared by the Standards and Petitions Committee. Downloadable from <https://www.iucnredlist.org/documents/RedListGuidelines.pdf>* vol. 15.

Jarvie, S. (2024). Conservation status of Otago’s amphibians. Otago Regional Council, Otago Threat Classification Series, 2024/4. 24 p.

Jarvie, S., Barkla, J., Rance, B., Rogers, G., Ewans, R., Thorsen, M. (2024c). Conservation status of indigenous vascular plants in Otago. Otago Regional Council, Otago Threat Classification Series, 2024/3. 138 p.

Jarvie, S., Cooper J. (2024). Conservation status of selected species of non-lichenised agarics, boletes, and russuloid fungi in Otago. Otago Threat Classification Series, 2024/7. 45 p.

Jarvie, S., Davidson-Watts, I., Dennis, G., Gower, C., Pryde, M. (2023a). Regional conservation status of bat species in Otago. Otago Regional Council, Otago Threat Classification Series, 2023/2. 19 p.

Jarvie, S., Knox, C., Monks, J.M., Reardon, J., Campbell, C. (2023a). Conservation status of reptile species in Otago. Otago Regional Council, Otago Threat Classification Series, 2023/5. 36 p.

Jarvie, S., Knox, C., Monks, J.M., Purdie, S., Reardon, J., Campbell, C. (2024a). Conservation status of reptile species in Otago. Otago Regional Council, Otago Threat Classification Series, 2024/5. 36 p.

Jarvie, S., McKinlay, B., Palmer, D., Rawlence, N. J., Thomas O. (2024b). Regional conservation status of birds in Otago. Otago Regional Council, Otago Threat Classification Series, 2024/6. 134 p.

Karambelkar, B., Schloerke, B. (2018). leaflet.extras: Extra functionality for ‘leaflet’ Package. R package version 1.0.0, <https://CRAN.R-project.org/package=leaflet.extras>

Kriticos D.J., Leriche, A. (2008). The current and future potential distribution of guava rust, *Puccinia psidii* in New Zealand. MAF Biosecurity New Zealand Technical Paper. Rotorua, New Zealand: Scion.

Kriticos, D.J., Morin, L., Leriche, A., Anderson, R.C., Caley, P. (2013). Combining a climatic niche model of an invasive fungus with its host species distributions to identify risks to natural assets: *Puccinia psidii* sensu lato in Australia. *PLoS ONE* 8: e64479.

Lehnebach, C.S., Alderton-Moss, J., Shephard, L.D. (2025). A new species of *Prasophyllum* (Orchidaceae) for New Zealand and lectotypification of *P. colensoi*. *New Zealand Journal of Botany*. DOI: 10.1080/0028825X.2025.2454582

Macmillan, B.H. (1991). *Acaena rorida* and *Acaena tesca* (Rosaceae) — two new species from New Zealand. *New Zealand Journal of Botany* 29: 131–138.

Melzer, S., Hitchmough, R., van Winkel, D., Wedding, C., Chapman, S., Rixon, M., Moreno, V., J. Germano, J. (2022a). Conservation status of amphibian species in Tāmaki Makaurau / Auckland. Auckland Council Technical Report, TR2022/4. 16 p.

Melzer, S., Hitchmough, R., van Winkel, D., Wedding, C., Chapman, S., Rixon, M. (2022b). Conservation status of reptile species in Tāmaki Makaurau / Auckland. Auckland Council Technical Report, TR2022/3. 20 p.

Meudt, H.M. (2008). Taxonomic revision of Australasian snow hebes (*Veronica*, Plantaginaceae). *Australian Systematic Botany* 21: 387–421.

Meudt, H.M., Prebble, J.M. (2018). Species limits and taxonomic revision of the bracteate-prostrate group of southern hemisphere forget-me-nots (*Myosotis*, Boraginaceae), including description of three new species endemic to New Zealand. *Australian Systematic Botany* 31: 48–105.

Meudt, H.M., Thorsen, M.J., Prebble, J.M. (2020). Taxonomic revision of the *Myosotis australis* group (Boraginaceae) native to Australia, New Zealand and New Guinea. *Australian Systematic Botany* 33: 477–524.

Michel, P. (2021). Amendment to the New Zealand Threat Classification System 2008: revised categories 2021. Department of Conservation, Wellington. 5 p.

Moore, L.B., Edgar, E. (1976). *Flora of New Zealand Volume 2*, DSIR, Government Printer, Wellington.

Narouei-Khandan, H.A., Worner, S.P., Vijanen, S.L.H., van Bruggen, A.H.C., Jones, E.E. (2020). Projecting the suitability of global and local habitats for myrtle rust (*Austropuccinia psidii*) using model consensus. *Plant Pathology* 69: 17–27.

OpenStreetMap contributors. (2017). Planet dump retrieved from <https://planet.osm.org>. <https://www.openstreetmap.org>

Pebesma, E. (2018). Simple features for R: Standardized support for spatial vector data. *The R Journal* 10(1): 439–446.

Posit Team (2023). *RStudio: Integrated Development Environment for R*. Posit Software, PBC, Boston, MA, USA.

Prebble J.M., Symonds, V.V., Tate J.A., Meudt, H.M. (2022). Taxonomic revision of the southern hemisphere pygmy forget-me-not group (*Myosotis*; Boraginaceae) based on morphological, population genetic and climate-edaphic niche modelling data. *Australian Systematic Botany* 35, 63-94.

R Core Team. (2022). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria.

Rolfe, J., Makan, T. Tait, A. (2021). Supplement to the New Zealand Threat Classification System manual 2008: new qualifiers and amendments to qualifier definitions, 2021. Department of Conservation, Wellington. 7 p.

Rolfe J., Hitchmough, R., Michel, P., Makan, T., Cooper, J.A., de Lange, P.J., Townsend, C.A.J., Townsend, C.A.J., Miskelly, C.M., Molloy, J. (2022). New Zealand threat

classification manual 2022. Part 1: assessments. Department of Conservation, Wellington. 45 p.

Saldivia, P. (2023). Nomenclature and typifications in *Celmisia* (Asteraceae: Astereae): The New Zealand endemic subgenera *Caespitosae*, *Glandulosae*, and *Lignosae*. *Phytotaxa* 591(1): 31–45.

Sievert, C. (2020). Interactive web-based data visualisation with R, plotly, and shiny. Chapman and Hall/CRC, Florida.

Simpkins, E., Woolly, J., de Lange, P., Kilgour, C., Cameron, E., Melzer, S. (2023). Conservation status of vascular plant species in Tāmaki Makaurau/Auckland. Auckland Council Technical Report, TR2022/19. 17 p.

Thorsen, M.J., de Lange, P.J. (2016). *Carex applanata* (Cyperaceae), a new species from southern New Zealand. *New Zealand Journal of Botany*, 54 (3): 335–343.

Townsend, A.J., de Lange, P.J., Duffy, C.A.J., Miskelly, C.M., Molloy, J., Norton, D.A. (2008). New Zealand Threat Classification System manual. Department of Conservation, Wellington. 35 p.

Turland, N. J., Wiersema, J. H., Barrie, F. R., Greuter, W., Hawksworth, D. L., Herendeen, P. S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T. W., McNeill, J., Monro, A. M., Prado, J., Price, M. J. & Smith, G. F. (eds.) (2018). International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile* 159. Glashütten: Koeltz Botanical Books. DOI: <https://doi.org/10.12705/Code.2018>

Ward, C.M., Bruce, D.L., Rance, B.D., Roozen, D.A., Grove, P. (1994). Lindis, Pisa and Dunstan Ecological Districts: Survey report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme. Department of Conservation, Dunedin. 236 p.

Wickham, H. (2016). *ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. ISBN 978-3-319-24277-4

Wickham, H., Averick, A., Byran, J., Chang, W., D’Agostino McGowan, L., Francois, R., Grolemond, G., Hayes, A., Henry, L., Hester, J., Kuhn, M., Lin Pedersen, T., Miller, E.,

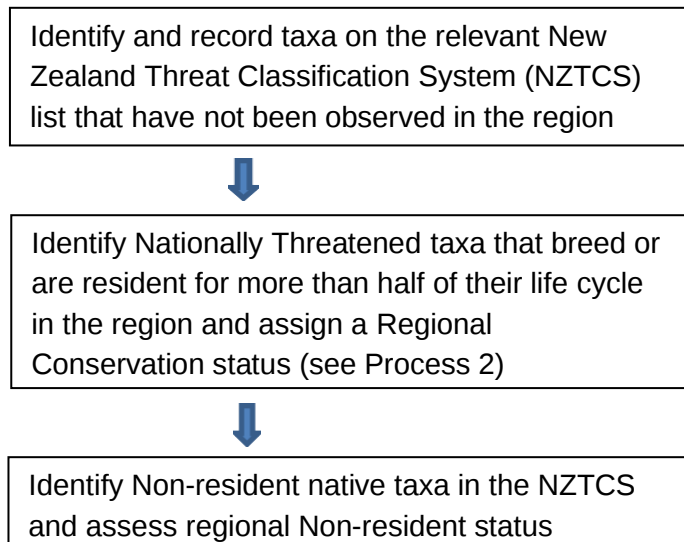
Milton Bache, S., Muller, K., Ooms, J., Robinson, D., Paige Seidel, D., Spinu, V., Takahashi, K., Vaughan, D., Wilke, C., Woo, K., Yutani, M. (2019). Welcome to the *tidyverse*. *Journal of Open Source Software* 4(43): 1686.

Wickham, J., Bryan, J. (2022). readxl: Read Excel Files. R package version 1.4.0, <https://CRAN.R-project.org/package=readxl>

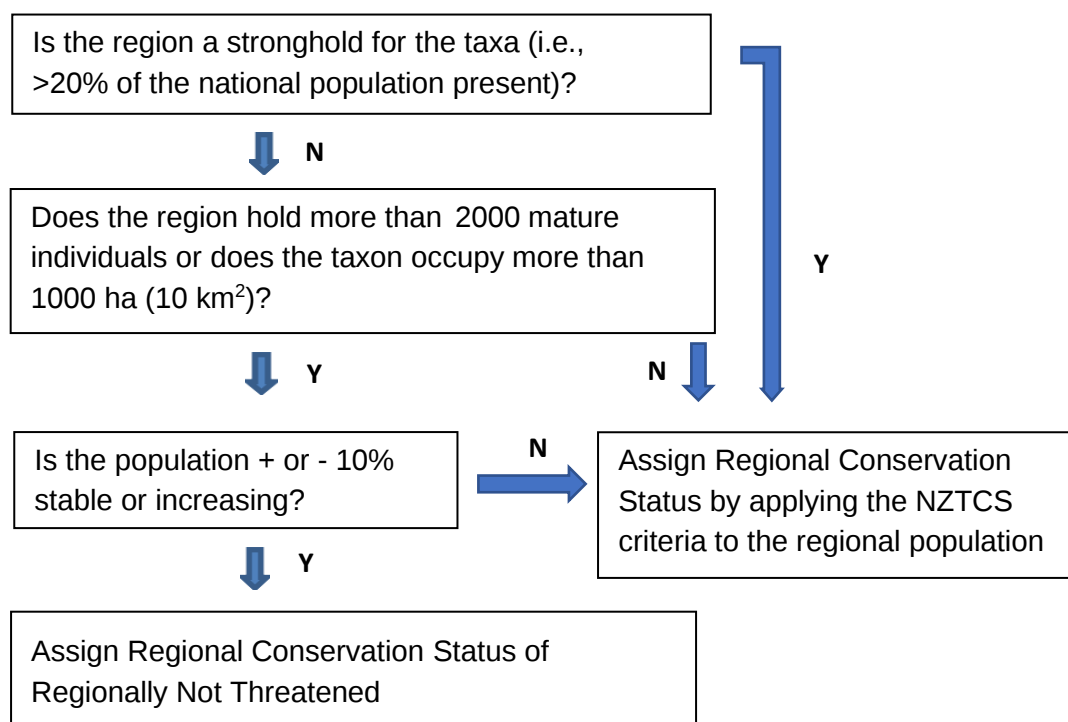
Woolly, J.B., Paris, B., Borkin, K., Davidson-Watts, I., Clarke, D., Davies, F., Burton, C., Melzer, S. (2023). Conservation status of bat species in Tāmaki Makaurau / Auckland. Auckland Council Technical Report, TR2023/4. 18 p.

Appendix 1: Process for determining the regional threat status of taxa

Process 1: Determination of regional threat status



Process 2: Determination of strongholds and Regionally Not Threatened species



Appendix 2: List of Regional Qualifiers for Regional Conservation Threat Assessments

Code	Qualifier	Description
FR	Former Resident	Breeding population (existed for more than 50 years) extirpated from region but continues to arrive as a regional vagrant or migrant. FR and RN are mutually exclusive.
HR	Historical Range	The inferred range (extending in any direction) of the taxon in pre-human times meets its natural limit in the region.
IN	Introduced Native	Introduced to the region, though not known to have previously occurred in it.
NS	National Stronghold	More than 20% of the national population breeding or resident for more than half their life cycle in the region.
NR	Natural Range	The known range (extending in any direction) of the taxon meets its natural limit in the region.
RE	Regional Endemic	Known to breed only in the region.
RN	Restored Native	Reintroduced to the region after having previously gone extinct there.
TL	Type Locality	The type locality of the taxon is within the region. Ignore if the taxon is or has ever been regionally extinct

Appendix 3: List of National Qualifiers from the New Zealand Threat Classification System (Townsend et al. 2008; Michel 2021; Rolfe et al. 2021)

Code	Qualifier	Qualifier Type	Description
DPR	Data Poor: Recognition	Assessment Process Qualifier	Confidence in the assessment is low because of difficulties determining the identity of taxon in the field and/or in the laboratory. Taxa that are DPR will often be DPS and DPT. In such cases, the taxon is most likely to be Data Deficient.
DPS	Data Poor: Size	Assessment Process Qualifier	Confidence in the assessment is low because of a lack of data on population size.
DPT	Data Poor: Trend	Assessment Process Qualifier	Confidence in the assessment is low because of a lack of data on population trend.
DE	Designated	Assessment Process Qualifier	A taxon that the Expert Panel has assigned to what they consider to be the most appropriate status without full application of the criteria. For example, a commercial fish that is being fished down to Biomass Maximum Sustainable yield (BMSy) may meet criteria for 'Declining', however, it could be designated as 'Not Threatened' if the Expert Panel believes that this better describes the taxon's risk of extinction.
IE	Island Endemic	Biological Attribute Qualifier	A taxon whose naturally distribution is restricted to one island archipelago (e.g., Auckland Islands) and is not part of the North or South Islands or Steward Island/Rakiura. This qualifier is equivalent to the 'Natural' Population State value in the database.
NS	Natural State	Biological Attribute Qualifier	A taxon that has a stable or increasing population that is presumed to be in a natural condition, i.e., has not experienced historical human-induced decline.

Continued on next page

List of National Qualifiers from the New Zealand Threat Classification System

Code	Qualifier	Qualifier Type	Description
RR	Range Restricted	Biological Attribute Qualifier	A taxon naturally confined to specific substrates, habitats or geographic areas of less than 100 km² (100,000 ha), this is assessed by taking into account the area of occupied habitat of all sub-populations (and summing the areas of habitat if there is more than one sub-population), e.g., Chatham Island forget-me-not (<i>Myosotidium hortensia</i>) and Auckland Island snipe (<i>Coenocorypha aucklandica aucklandica</i>). This qualifier can apply to any 'Threatened' or 'At Risk' taxon. It is redundant if a taxon is confined to 'One Location' (OL)
Sp	Biologically Sparse	Biological Attribute Qualifier	The taxon naturally occurs within typically small and widely scattered subpopulations. This qualifier can apply to any 'Threatened' or 'At Risk' taxon.
NO	Naturalized Overseas	Population State Qualifier	A New Zealand endemic taxon that has been introduced by human agency to another country (deliberately or accidentally) and has naturalised there, e.g., <i>Olearia traversiourum</i> in the Republic of Ireland.
OL	One Location	Population State Qualifier	Found at one location in New Zealand (geographically or ecologically distinct area) of less than 100,000 ha (1000 km²), in which a single event (e.g., a predator irruption) could easily affect all individuals of the taxon, e.g., L'Esperance Rock groundsel (<i>Senecio esperensis</i>) and Open Bay leech (<i>Hirudobdella antipodum</i>). 'OL' can apply to all 'Threatened', 'At Risk', 'Non-resident Native' – Coloniser and Non-resident Native – Migrant taxa, regardless of whether their restricted distribution in New Zealand is natural or human-induced. Resident native taxa with restricted distributions but where it is unlikely that all sub-populations would be threatened by a single event (e.g., because water channels within an archipelago are larger than known terrestrial predator swimming distances) should be qualified as 'Range Restricted' (RR).
SO	Secure Overseas	Population State Qualifier	The taxon is secure in the parts of its natural range outside New Zealand

Continued on next page

List of National Qualifiers from the New Zealand Threat Classification System

Code	Qualifier	Qualifier Type	Description
SO?	Secure Overseas?	Population State Qualifier	It is uncertain whether a taxon of the same that is secure in the parts of its natural range outside New Zealand is conspecific with the New Zealand taxon.
S?O	Secure? Overseas	Population State Qualifier	It is uncertain whether the taxon is secure in the parts of its natural range outside New Zealand.
TO	Threatened Overseas	Population State Qualifier	The taxon is threatened in the parts of its natural range outside New Zealand.
T?O	Threatened Overseas?	Population State Qualifier	It is uncertain whether a taxon of the same name that is threatened in the parts of its natural range outside New Zealand is conspecific with the New Zealand taxon.
T?O	Threatened? Overseas	Population State Qualifier	It is uncertain whether the taxon is threatened in the parts of its natural range outside New Zealand.

Continued on next page

List of National Qualifiers from the New Zealand Threat Classification System

Code	Qualifier	Qualifier Type	Description
CI	Climate Impact	Pressure Management Qualifier	The taxon is adversely affected by long-term climate trends and/or extreme climatic events. The following questions provide a guide to using the CI Qualifier: Is the taxon adversely affected by long-term changes in the climate, such as an increase in average temperature or sea-level rise? If NO = no Qualifier but needs monitoring and periodic re-evaluation because projected changes to the average climate and sea-level rise may adversely impact the taxon (including via changes to the distribution and prevalence of pests, weeds and predators) in the future. If YES = CI Qualifier Is the taxon adversely affected by extreme climate events, such as a drought, storm or heatwave? If No = no Qualifier but needs monitoring and periodic re-evaluation because projected changes to the climate are likely to increase the frequency and/or severity of these events in the future. If YES = CI Qualifier Use of the Climate Impact Qualifier would indicate the need for more in-depth research, ongoing monitoring of climate impacts, and potentially a climate change adaptation plan for the taxon

Continued on next page

List of National Qualifiers from the New Zealand Threat Classification System

Code	Qualifier	Qualifier Type	Description
CD	Conservation Dependent	Pressure Management Qualifier	The taxon is likely to move to a worse conservation status if current management ceases. The term ‘management’ can include indirect actions that benefit taxa, such as island biosecurity. Management can make a taxon CD only if cessation of the management would result in a worse conservation status. The influence of the benefits of management on the total population must be considered before using CD. The benefit of managing a single subpopulation may not be adequate to trigger CD, but may trigger Partial Decline (PD). Taxa qualified CD may also be PD because of the benefits of management.
CR	Conservation Research Needed	Pressure Management Qualifier	Causes of decline and/or solutions for recovery are poorly understood and research is required.
EW	Extinct In The Wild	Pressure Management Qualifier	The taxon is known only in captivity or cultivation or has been reintroduced to the wild but is not self-sustaining. Assessment of a reintroduced population should be considered only when it is self-sustaining. A population is deemed to be self-sustaining when the following two criteria have been fulfilled: it is expanding or has reached a stable state through natural replenishment and at least half the breeding adults are products of the natural replenishment, and it has been at least 10 years since reintroduction
EF	Extreme Fluctuations	Pressure Management Qualifier	The taxon experiences extreme unnatural population fluctuations, or natural fluctuations overlaying human-induced declines, that increase the threat of extinction. When ranking taxa with extreme fluctuations, the lowest estimate of mature individuals should be used for determining population size, as a precautionary measure.

Continued on next page

List of National Qualifiers from the New Zealand Threat Classification System

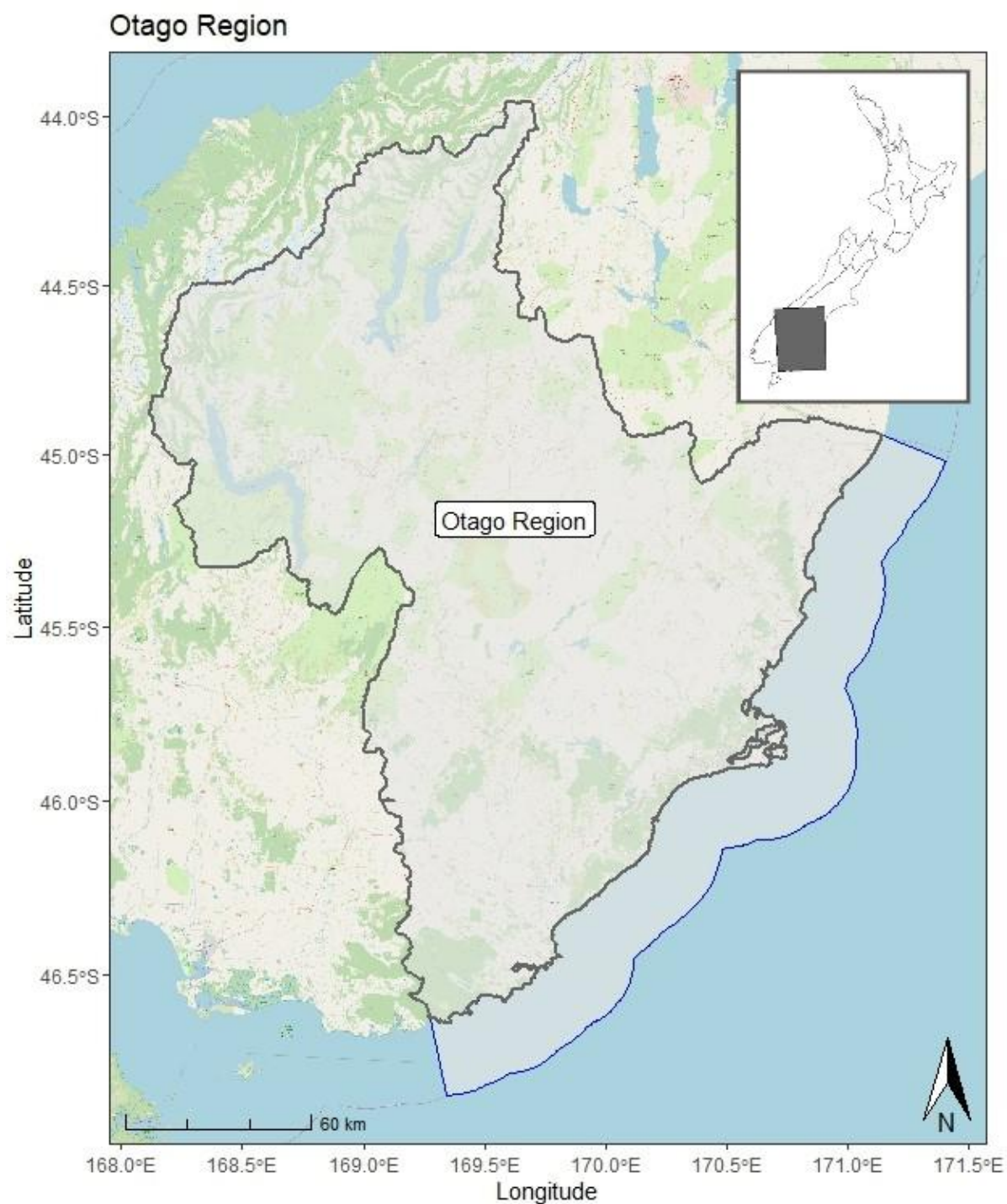
Code	Qualifier	Qualifier Type	Description
INC	Increasing	Pressure Management Qualifier	There is an ongoing or forecast increase of > 10% in the total population, taken over the next 10 years or three generations, whichever is longer. This qualifier is redundant for taxa ranked as 'Recovering'.
PD	Partial Decline	Pressure Management Qualifier	The taxon is declining over most of its range, but with one or more secure populations (such as on offshore islands). Partial decline taxa (e.g., North Island kākā <i>Nestor meridionalis septentrionalis</i> and Pacific gecko <i>Dactylocnemis pacificus</i>) are declining towards a small stable population, for which the Relict qualifier may be appropriate.
PF	Population Fragmentation	Pressure Management Qualifier	Gene flow between subpopulations is hampered as a direct or indirect result of human activity. Naturally disjunct populations are not considered to be 'fragmented'.
PE	Possibly/Presumed Extinct	Pressure Management Qualifier	A taxon that has not been observed for more than 50 years but for which there is little or no evidence to support declaring it extinct. This qualifier might apply to several Data Deficient and Nationally Critical taxa.
RF	Recruitment Failure	Pressure Management Qualifier	The age structure of the current population is such that a catastrophic decline is likely in the future. Failure to produce new progeny or failure of progeny to reach maturity can be masked by apparently healthy populations of mature specimens.

Continued on next page

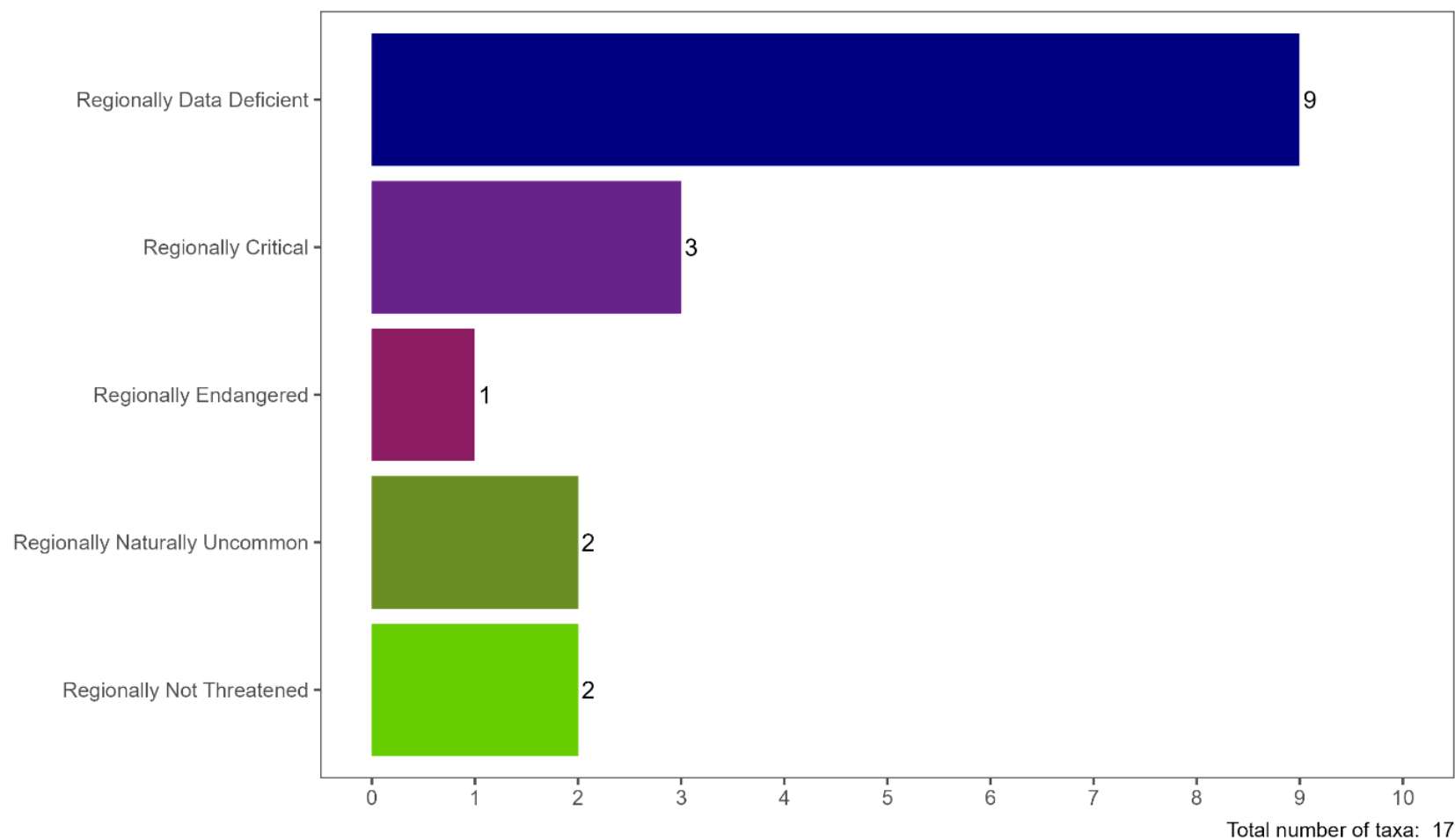
List of National Qualifiers from the New Zealand Threat Classification System

Code	Qualifier	Qualifier Type	Description
Rel	Relict	Pressure Management Qualifier	The taxon has declined since human arrival to less than 10% of its former range but its population has stabilised. The range of a relictual taxon takes into account the area currently occupied as a ratio of its former extent. Reintroduced and self-sustaining populations within or outside the former known range of a taxon should be considered when determining whether a taxon is relictual. This definition is modified from the definition of the At Risk – Relict category in the NZTCS manual (Townsend et al. 2008). The main difference is that trend is not included in the qualifier definition. This enables the qualifier to be applied to any taxon that has experienced severe range contraction, regardless of whether that contraction continues or has been arrested. This qualifier complements the ‘Naturally Uncommon (NU)’ qualifier which can be applied to taxa whose abundance has declined but which continue to occupy a substantial part of their natural range.

Appendix 4: Map of the Otago Region, showing the coastal marine area. Inset map shows Otago in relation to the remainder of Aotearoa New Zealand.



Appendix 5. Regional conservation status for 17 indigenous vascular plants in the Otago region not assessed in the national assessment (de Lange et al. 2024). See Figure 1 for the threat statuses of the 1307 indigenous vascular plants in Otago also assessed national nationally (de Lange et al. 2024).



Appendix 6: Indigenous vascular plants found only in Otago

Name and Authority	Common Name	Regional Conservation Status	National Conservation Status	Distributional Notes
<i>Abrotanella patea</i> Heads		Regionally Naturally Uncommon	Naturally Uncommon	Eastern and Central Otago: Rock and Pillar Range, Lammerlaw Top, Umbrella Mountains, Garvie Mountain
<i>Acaena</i> aff. <i>rorida</i> (OTA 59561; Pool Burn)	bidibidi	Regionally Critical	Nationally Critical	Maniototo and Macraes
<i>Anisotome</i> (b) (CHR 511716); "Otago bog"		Regionally Naturally Uncommon	Naturally Uncommon	Pisa Range
<i>Anthosachne aprica</i> (Á.Löve & Connor) C.Yen & J.L.Yang	blue wheat grass	Regionally Vulnerable	Naturally Uncommon	Central Otago
<i>Apium</i> "inland saline"		Regionally Critical		Central Otago
<i>Brachyscome</i> "Taiari"		Regionally Critical		Central Otago
<i>Brachyscome humilis</i> G.Simpson & J.S.Thomson	daisy	Regionally Naturally Uncommon	Naturally Uncommon	Rock and Pillar Range and Lammerlaw/Lammermoor Ranges
<i>Cardamine sciaphila</i> Heenan	cress	Regionally Critical	Nationally Critical	Central Otago - the highest parts of the Dunstan Mountains and Pisa Range
<i>Carex</i> aff. <i>aucklandica</i> "Dunstan"		Regionally Data Deficient		
<i>Carex applanata</i> Thorsen & de Lange		Regionally Endangered	Naturally Uncommon	Central Otago, including the Old Woman, Old Man, Umbrella, Garvie, Pisa and The Remarkables Range

Continued on next page

Regional endemic continued

Name and Authority	Common Name	Regional Conservation Status	National Conservation Status	Distributional Notes
Carex aff. wakatipu (e) (CHR 472041; Bendigo)		Regionally Data Deficient		
<i>Carmichaelia compacta</i> Petrie	Cromwell broom	Regionally Declining	Naturally Uncommon	Central Otago, centred on the Kawarau and Cromwell Gorges and immediate surrounding area, also near Alexandra, Omakau, and Cromwell
<i>Celmisia haastii</i> var. <i>tomentosa</i> G.Simpson & J.S.Thomson	daisy	Regionally Naturally Uncommon	Naturally Uncommon	Rock and Pillar Range
<i>Celmisia lindsayi</i> Hook.f.	Lindsay's Daisy	Regionally Naturally Uncommon	Naturally Uncommon	Coast from Clutha River to Chaslands Mistake
<i>Craspedia</i> (ll) (CHR 629757; Otago)		Regionally Data Deficient	Not Threatened	
<i>Craspedia</i> (y) (CHR 516260; Cape Saunders)		Regionally Critical	Nationally Critical	Otago Peninsula
<i>Craspedia argentea</i> Breitw. & K.A.Ford, sp. nov.		Regionally Critical	Nationally Critical	One location in the Upper Clutha Catchment, Central Otago
<i>Festuca matthewsii</i> subsp. <i>pisamontis</i> Connor		Regionally Naturally Uncommon	Naturally Uncommon	Central Otago: Dunstan, Pisa, and Kopuwait Old Man Range

Continued on next page

Regional endemic continued

Name and Authority	Common Name	Regional Conservation Status	National Conservation Status	Distributional Notes
<i>Gingidia grisea</i> Heenan		Regionally Declining	Naturally Uncommon	North-eastern Otago, from near the Millhouse (Herbert) south to Mt Watkin/Hikaroroa (Waikouaiti), east to Macraes Flat and then west to Shag and Moeraki Points.
<i>Helichrysum simpsonii</i> subsp. <i>tumidum</i> (Cheeseman) de Lange & Blanchon		Regionally Vulnerable	Nationally Vulnerable	Otago Peninsula
<i>Kelleria villosa</i> var. <i>barbata</i> Heads		Regionally Naturally Uncommon	Naturally Uncommon	Rock and Pillar Range
<i>Lepidium crassum</i> Heenan & de Lange	thick-leaved scurvy grass	Regionally Endangered	Nationally Endangered	Once found in the Waitaki Valley, an inland location, to coastal locations from Oamaru to North Head, Waikawa Harbour in the south Catlins. Now most common on Otago Peninsula, but occurs in small populations from near Kakanui, North Otago to The Nuggets, South Otago
<i>Lepidium kirkii</i> Petrie	salt-pan cress	Regionally Critical	Nationally Critical	Formerly widespread on saline/sodic soils from the Ida Valley and Maniototo plains south to Alexandra in the Manuherikia Valley, but now only known only Central Otago

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regional endemic continued

Name and Authority	Common Name	Regional Conservation Status	National Conservation Status	Distributional Notes
<i>Leptinella</i> aff. <i>pectinata</i> (a) (CHR 580894; Nevis)		Regionally Vulnerable	Nationally Vulnerable	One location in Nevis Valley
<i>Luzula traversii</i> var. <i>tenuis</i> Edgar	wood-rush	Regionally Endangered	Naturally Uncommon	Central Otago
<i>Melicytus</i> aff. <i>crassifolius</i> (b) (CHR 616706; Cape Saunders)		Regionally Critical	Nationally Critical	Otago Peninsula
<i>Montia</i> aff. <i>fontana</i> (CHR 681612; “Otago alpine flush”)		Regionally Naturally Uncommon		The Remarkables Range
<i>Myosotis albosericca</i> Hook.f.		Regionally Critical	Nationally Critical	One location on the southern Dunstan Range, Central Otago
<i>Myosotis bryonoma</i> Meudt, Prebble & Thorsen	forget-me-not	Regionally Naturally Uncommon	Naturally Uncommon	High-elevation bogs and wet places in mountain ranges of Otago
<i>Myosotis glabrescens</i> L.B.Moore	Forget-me-not	Regionally Critical	Nationally Critical	Hector Mountains and Harris Mountains
<i>Myosotis goyenii</i> Petrie subsp. <i>goyenii</i>		Regionally Declining	Naturally Uncommon	Central Otago
<i>Myosotis hikuwai</i> Meudt et al. 2022.		Regionally Endangered	Nationally Endangered	One location on outwash gravel terraces, near Wānaka
<i>Myosotis oreophila</i> Petrie		Regionally Critical	Nationally Critical	Central Otago

Continued on next page

Conservation status of indigenous vascular plants in Otago

Regional endemic continued

Name and Authority	Common Name	Regional Conservation Status	National Conservation Status	Distributional Notes
<i>Myosotis umbrosa</i> Meudt, Prebble & Thorsen		Regionally Critical	Nationally Critical	Rock and Pillar and Lammerlaw Ranges
<i>Oxalis</i> aff. <i>magellanica</i> (CHR 472028: "Otago alpine flush")		Regionally Naturally Uncommon		
<i>Pimelea</i> <i>sericeovillosa</i> subsp. <i>alta</i> C.J.Burrows		Regionally Naturally Uncommon	Naturally Uncommon	Pisa Range
<i>Poa pygmaea</i> Buchanan		Regionally Naturally Uncommon	Naturally Uncommon	Pisa Range and Mount St Bathans
<i>Ranunculus</i> (c) (CHR 472008; Garvie Range)		Regionally Naturally Uncommon	Data Deficient	Garvie Range
<i>Solenogyne</i> <i>christensenii</i> (Petrie) de Lange, Jian Wang ter & Barkla, comb. nov.		Regionally Critical	Nationally Critical	One location in the upper Clutha Valley. Believed extinct from the Hanmer Plains, Canterbury.



Find out more:

www.orc.govt.nz/environment/biodiversity/regional-threat-assessments/

or visit:

www.orc.govt.nz/environment/biodiversity/



Otago
Regional
Council