

Section 32 Evaluation Report for the Proposed Otago Land and Water Regional Plan

Appendix 2: Threatened freshwater-dependant species of the Otago Region

**This Section 32 Evaluation Report should be read together with the Proposed
Otago Land and Water Regional Plan**



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Abbreviations

NZTCS	New Zealand Threat Classification System
NES	National Environmental Standard
NPS	National Policy Statement
pLWRP	Proposed Otago Land and Water Regional Plan 2024

Appendix 2 – Threatened freshwater-dependent species of the Otago Region

Table 1: Assessment of 140 candidate species for inclusion in APP6 of the pLWRP, based on their threat status (NZTCS) and which freshwater-dependence criteria they met (as assessed by Thorsen 2022). Species were included in APP6 where they met the criteria for nationally critical, nationally endangered, or nationally vulnerable AND at least one of three freshwater-dependence criteria (A, B or D). Appendix 1 of this report contains more information about the freshwater-dependence criteria.

Species name	Common name(s)	Threat status	A	B	C	D	E	F	Included?
Bats									
<i>Chalinolobus tuberculatus</i>	long-tailed bat	Nationally Critical			✓	✓		✓	Yes
Birds									
<i>Ardea modesta</i>	white heron, kōtuku,	Nationally Critical		✓		✓		✓	Yes
<i>Botaurus poiciloptilus</i>	Australasian bittern, matuku hūrepo,	Nationally Critical	✓			✓		✓	Yes
<i>Himantopus novaezelandiae</i>	black stilt, kakī,	Nationally Critical	✓			✓		✓	Yes
<i>Chlidonias albostratus</i>	black-fronted tern, tarapirohe, tarapiroe	Nationally Endangered		✓		✓		✓	Yes
<i>Egretta sacra sacra</i>	reef heron, matuku moana,	Nationally Endangered			✓	✓		✓	Yes
<i>Anas superciliosa</i>	grey duck, pāpera,	Nationally Vulnerable	✓			✓		✓	Yes
<i>Hydroprogne caspia</i>	Caspian tern, taranui,	Nationally Vulnerable			✓	✓		✓	Yes
<i>Hymenolaimus malacorhynchos</i>	whio, blue duck, kōwhiowhio, kowhiowhio, mountain duck, blue mountain duck	Nationally Vulnerable	✓			✓		✓	Yes
<i>Podiceps cristatus australis</i>	Australasian crested grebe, southern crested grebe, great crested grebe, pūteketeke, puteketeke, kamana, kāmana	Nationally Vulnerable	✓			✓		✓	Yes
<i>Leucocarbo carunculatus</i>	king shag, kawau,	Nationally Endangered						✓	No
<i>Nestor notabilis</i>	kea,	Nationally Endangered			✓			✓	No

<i>Eudynamys taitensis</i>	long-tailed cuckoo, koekoeā, koekoea, kohoperoa, long-tailed koel	Nationally Vulnerable							✓	No
<i>Falco novaeseelandiae novaeseelandiae</i>	eastern falcon, kārearea,	Nationally Vulnerable			✓				✓	No
<i>Nestor meridionalis meridionalis</i>	South Island kākā, kākā, bush parrot, brown parrot, kawkaw, South Island kaka	Nationally Vulnerable			✓				✓	No
<i>Porphyrio hochstetteri</i>	South Island takahē, takahē, South Island takahe	Nationally Vulnerable			✓				✓	No
<i>Anarhynchus frontalis</i>	wrybill, ngutu-pare,	Nationally Increasing		✓		✓			✓	No
<i>Anas chlorotis</i>	brown teal, pāteke,	Nationally Increasing	✓			✓			✓	No
Fish										
<i>Galaxias</i> "species D"	Clutha flathead galaxias (Clutha River)	Nationally Critical	✓			✓			✓	Yes
<i>Galaxias</i> "Teviot"	Teviot flathead galaxias (Teviot River)	Nationally Critical	✓			✓			✓	Yes
<i>Galaxias cobitinis</i>	lowland longjaw galaxias (Kakanui River)	Nationally Critical	✓			✓			✓	Yes
<i>Neochanna burrowsius</i>	Canterbury mudfish	Nationally Critical	✓			✓			✓	Yes
<i>Galaxias</i> "Nevis"	Nevis galaxias (Nevis River)	Nationally Endangered	✓			✓			✓	Yes
<i>Galaxias</i> aff. <i>paucispondylus</i> "Manuherikia"	alpine galaxias (Manuherikia River)	Nationally Endangered	✓			✓			✓	Yes
<i>Galaxias anomalus</i>	Central Otago roundhead galaxias	Nationally Endangered	✓			✓			✓	Yes
<i>Galaxias eldoni</i>	Eldon's galaxias	Nationally Endangered	✓			✓			✓	Yes
<i>Galaxias pullus</i>	dusky galaxias	Nationally Endangered	✓			✓			✓	Yes
<i>Galaxias</i> "Pomahaka"	Pomahaka galaxias (Pomahaka River)	Nationally Vulnerable	✓			✓			✓	Yes
<i>Galaxias</i> "southern"	southern flathead galaxias (Southland, Otago)	Nationally Vulnerable	✓			✓			✓	Yes

<i>Galaxias aff. paucispondylus</i> "Southland"	alpine galaxias (Southland)	Nationally Vulnerable	✓			✓		✓	Yes
<i>Galaxias depressiceps</i>	Taieri flathead galaxias	Nationally Vulnerable	✓			✓		✓	Yes
<i>Galaxias gollumoides</i>	Gollum galaxias	Nationally Vulnerable	✓			✓		✓	Yes
<i>Geotria australis</i>	kanakana, lamprey	Nationally Vulnerable	✓			✓		✓	Yes
Invertebrates									
<i>Alsolemia cresswelli</i>	land snail	Nationally Critical						✓	No
<i>Asaphodes frivola</i>	Remuremu looper moth	Nationally Critical			✓			✓	No
<i>Bembidion chalmeri</i>		Nationally Critical			✓			✓	No
<i>Eulimnadia marplei</i>	clam shrimp	Nationally Critical	✓			✓		✓	Yes
<i>Nesoperla patricki</i>	stonefly	Nationally Critical	✓			✓		✓	Yes
<i>Oeconesus angustus</i>	caddisfly	Nationally Critical	✓			✓		✓	Yes
<i>Pimeleocoris roseus</i>		Nationally Critical						✓	No
<i>Sporophyla oenospora</i>	snout moth	Nationally Critical						✓	No
<i>Taraperla johnsi</i>	stonefly	Nationally Critical	✓			✓		✓	Yes
<i>Vesicaperla trilinea</i>	stonefly	Nationally Critical				✓		✓	Yes
<i>Zelandobius crawfordi</i>	stonefly	Nationally Critical	✓			✓		✓	Yes
<i>Zelandobius edwardsi</i>	stonefly	Nationally Critical	✓			✓		✓	Yes
<i>Zelandobius mariae</i>	stonefly	Nationally Critical	✓			✓		✓	Yes
<i>Kiwisaldula laelaps</i>	shore bug	Nationally Endangered				✓			Yes
<i>Maoricrambus oncobolus</i>	moth	Nationally Endangered	✓					✓	Yes

<i>Olinga fumosa</i>	caddis	Nationally Endangered	✓			✓	✓	Yes
<i>Pseudoeconesus paludis</i>	caddisfly	Nationally Endangered	✓			✓	✓	Yes
<i>Asaphodes stinaria</i>	moth	Nationally Vulnerable			✓		✓	No
<i>Cephalissa siria</i>	moth	Nationally Vulnerable					✓	No
<i>Declana toreuta</i>		Nationally Vulnerable					✓	No
<i>Edpercivalia tahatika</i>	caddisfly	Nationally Vulnerable	✓			✓		Yes
<i>Gingidiobora nebulosa</i>	moth	Nationally Vulnerable					✓	No
<i>Orocrambus sophistes</i>	moth	Nationally Vulnerable					✓	No
<i>Pseudoeconesus</i> n. sp. T	caddisfly	Nationally Vulnerable	✓			✓	✓	Yes
<i>Theoxena scissaria</i>	moth	Nationally Vulnerable					✓	No
<i>Xanthorhoe frigida</i>	loopier moth	Nationally Vulnerable					✓	No
Reptiles								
<i>Oligosoma burganae</i>	Burgan skink	Nationally Endangered					✓	No
<i>Oligosoma grande</i>	grand skink	Nationally Endangered					✓	No
<i>Oligosoma otagense</i>	Otago skink	Nationally Endangered					✓	No
<i>Oligosoma</i> aff. <i>chloronoton</i> "West Otago"	lakes skink, West Otago green skink	Nationally Vulnerable					✓	No
<i>Oligosoma</i> aff. <i>inconspicuum</i> "North Otago"	North Otago skink, Oteake skink	Nationally Vulnerable					✓	No
<i>Oligosoma</i> aff. <i>waimatense</i> "alpine rock"	alpine rock skink	Nationally Vulnerable					✓	No
<i>Oligosoma waimatense</i>	scree skink	Nationally Vulnerable					✓	No

<i>Woodworthia</i> "Raggedy"	Raggedy Range gecko	Nationally Vulnerable							✓	No
Seals and sea lions										
<i>Phocarctos hookeri</i>	New Zealand sea lion	Nationally Vulnerable			✓				✓	No
Lichens										
<i>Ramalina pollinaria</i>		Nationally Critical							✓	No
Plants										
<i>Brachyscome linearis</i>		Nationally Critical	✓			✓			✓	Yes
<i>Cardamine mutabilis</i>		Nationally Critical	✓						✓	Yes
<i>Chenopodium detestans</i>	New Zealand fish-guts plant	Nationally Critical	✓						✓	Yes
<i>Crassula peduncularis</i>		Nationally Critical	✓			✓			✓	Yes
<i>Korthalsella salicornioides</i>	mistletoe, dwarf mistletoe, leafless mistletoe	Nationally Critical				✓			✓	Yes
<i>Lagenophora montana</i>	papataniwha	Nationally Critical			✓	✓			✓	Yes
<i>Lophomyrtus obcordata</i>	rohutu, New Zealand myrtle	Nationally Critical			✓	✓				Yes
<i>Neomyrtus pedunculata</i>	rohutu, myrtle	Nationally Critical				✓				Yes
<i>Ourisia modesta</i>	creeping foxglove	Nationally Critical	✓			✓			✓	Yes
<i>Puccinellia raroflorens</i>	saltgrass	Nationally Critical	✓						✓	Yes
<i>Triglochin palustris</i>	marsh arrow grass	Nationally Critical	✓			✓			✓	Yes
<i>Carex cirrhosa</i>	curly sedge	Nationally Endangered	✓			✓			✓	Yes
<i>Carex strictissima</i>	bastard grass, hook sedge	Nationally Endangered			✓	✓			✓	Yes

<i>Chaerophyllum colensoi</i> var. <i>delicatulum</i> (CHR 73872; Hauhungaroa Range)	mountain myrrh	Nationally Endangered	✓					✓	Yes
<i>Crassula multicaulis</i>		Nationally Endangered	✓			✓		✓	Yes
<i>Euchiton ensifer</i>	creeping cudweed	Nationally Endangered	✓			✓		✓	Yes
<i>Gratiola concinna</i>		Nationally Endangered	✓			✓		✓	Yes
<i>Hypericum rubicundulum</i>		Nationally Endangered			✓	✓		✓	Yes
<i>Mazus novaezeelandiae</i> subsp. <i>impolitus</i> f. <i>impolitus</i>	dwarf musk/matt leaved mazus	Nationally Endangered	✓			✓		✓	Yes
<i>Ranunculus brevis</i>		Nationally Endangered	✓			✓		✓	Yes
<i>Wurmbea novae-zelandiae</i>		Nationally Endangered			✓	✓	✓	✓	Yes
<i>Althenia bilocularis</i>		Nationally Vulnerable	✓			✓			Yes
<i>Amphibromus fluitans</i>	water brome	Nationally Vulnerable	✓			✓		✓	Yes
<i>Carex capillacea</i>	sedge	Nationally Vulnerable	✓			✓		✓	Yes
<i>Carex rubicunda</i>	sedge	Nationally Vulnerable	✓			✓		✓	Yes
<i>Coprosma obconica</i>		Nationally Vulnerable			✓	✓		✓	Yes
<i>Eryngium vesiculosum</i>	sea holly, coastal eryngo	Nationally Vulnerable				✓		✓	Yes
<i>Juncus pauciflorus</i>	leafless rush	Nationally Vulnerable			✓	✓			Yes
<i>Leptospermum scoparium</i> var. <i>scoparium</i>	manuka, tea tree, kahikatoa	Nationally Vulnerable				✓		✓	Yes
<i>Libertia peregrinans</i>	New Zealand iris, mikoikoi	Nationally Vulnerable			✓	✓		✓	Yes
<i>Melicytus flexuosus</i>		Nationally Vulnerable			✓	✓		✓	Yes

<i>Metrosideros diffusa</i>	white rata	Nationally Vulnerable				✓		✓	Yes
<i>Metrosideros umbellata</i>	southern rata	Nationally Vulnerable				✓		✓	Yes
<i>Myosurus minimus</i> subsp. <i>novae-zelandiae</i>	New Zealand mousetail, bearded mousetail	Nationally Vulnerable			✓	✓		✓	Yes
<i>Pittosporum obcordatum</i>	heart-leaved kohuhu	Nationally Vulnerable			✓	✓		✓	Yes
<i>Ranunculus recens</i>		Nationally Vulnerable	✓			✓		✓	Yes
<i>Ranunculus ternatifolius</i>		Nationally Vulnerable			✓	✓		✓	Yes
<i>Tetrachondra hamiltonii</i>		Nationally Vulnerable			✓	✓	✓	✓	Yes
<i>Trithuria brevistyla</i>		Nationally Vulnerable	✓					✓	Yes
<i>Carmichaelia curta</i>	Waitaki Broom, whip broom	Nationally Critical						✓	No
<i>Ceratocephala pungens</i>		Nationally Critical			✓			✓	No
<i>Craspedia incana</i>	woollyhead	Nationally Critical						✓	No
<i>Epilobium pictum</i>	grassland willow herb	Nationally Critical						✓	No
<i>Lepidium kirkii</i>	Kirk's scurvy grass, salt pan cress	Nationally Critical						✓	No
<i>Leptinella conjuncta</i>		Nationally Critical						✓	No
<i>Myosotis umbrosa</i>		Nationally Critical			✓			✓	No
<i>Simplicia laxa</i>	simplicia	Nationally Critical						✓	No
<i>Olearia hectorii</i>	deciduous tree daisy, Hectors tree daisy	Nationally Endangered			✓			✓	No
<i>Ranunculus acraeus</i>		Nationally Endangered						✓	No
<i>Senecio dunedinensis</i>	fireweed	Nationally Endangered						✓	No
<i>Veronica cupressoides</i>	cypress hebe	Nationally Endangered			✓			✓	No

<i>Atriplex buchananii</i>	Buchanan's orache	Nationally Vulnerable			✓			✓	No
<i>Carex albula</i>	white sedge	Nationally Vulnerable						✓	No
<i>Carex inopinata</i>	grassy mat sedge	Nationally Vulnerable						✓	No
<i>Carex uncifolia</i>	sedge	Nationally Vulnerable			✓			✓	No
<i>Carmichaelia corrugata</i>	common dwarf broom	Nationally Vulnerable						✓	No
<i>Carmichaelia crassicaulis</i> subsp. <i>racemosa</i>	slender coral broom	Nationally Vulnerable						✓	No
<i>Carmichaelia juncea</i>		Nationally Vulnerable					✓	✓	No
<i>Carmichaelia kirkii</i>	climbing broom, Kirk's broom	Nationally Vulnerable						✓	No
<i>Carmichaelia nana</i>	dwarf broom	Nationally Vulnerable			✓			✓	No
<i>Convolvulus verecundus</i>	trailing bindweed, tussock bindweed	Nationally Vulnerable						✓	No
<i>Geranium retrorsum</i>	turnip-rooted geranium	Nationally Vulnerable						✓	No
<i>Lachnagrostis tenuis</i>	wind grass	Nationally Vulnerable			✓			✓	No
<i>Myosotis brevis</i>		Nationally Vulnerable			✓			✓	No
<i>Myosotis elderi</i>		Nationally Vulnerable						✓	No
<i>Myosotis glauca</i>		Nationally Vulnerable						✓	No
<i>Olearia fimbriata</i>		Nationally Vulnerable						✓	No
<i>Pimelea sericeovillosa</i> subsp. <i>pulvinaris</i>	cushion pimelea	Nationally Vulnerable						✓	No
<i>Pittosporum patulum</i>	pitpat	Nationally Vulnerable						✓	No
<i>Raoulia monroi</i>	fan-leaved mat daisy	Nationally Vulnerable						✓	No

<i>Sonchus novae-zelandiae</i>	dryland sow thistle	Nationally Vulnerable							✓	No
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[11](#) Thorsen, M., 2022. Mapping threatened and rare freshwater-dependent flora and fauna within the Otago Region. Ahikā Consulting Ltd., for Otago Regional Council.