

Updated Auckland Threatened Flora List.

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This document is based on earlier threatened flora documents written by Dave Houston and David Havell – DOC 5533263

Background/Introduction

1. Appendix 6 of the Auckland CMS contains a list of the threatened and at-risk indigenous flora and fauna present in Auckland alongside their threat rankings at the time of publication.
2. Every 5 years the conservation status of species is reviewed by an expert panel, the most recent review of vascular plants was undertaken in 2017. (Conservation status of New Zealand indigenous vascular plants, 2017.). A national review of the current threatened vascular plant listing was due late 2022 and should be expected in 2023.
3. The Auckland Council has recently reviewed the regional conservation status of native plants within the Auckland region and will have some insights into the threats to native plants within the Auckland region which may be of value to the board, ([Conservation Status of Vascular Plant Species in Tāmaki Makaurau / Auckland Emma Simpkins, Jacinda Woolly, Peter de Lange Cameron Kilgour, Ewen Cameron, Sabine Melzer December 2022 Technical Report 2022/19](#))
4. This report details the current national conservation status of all indigenous plants, and therefore includes those listed in Table A6.1 of the Auckland CMS.
5. The report includes species newly listed as threatened as well as newly recognised taxonomic entities, and species included as a review of databases and plant records.

Details/Comment

6. In an earlier report to the board, (2019) it was noted that several plants had been added to the threatened plant list in 2017 because potential or actual plant disease impacts. Three plants, *Syzygium maire*, *Lophomyrtus bullata*, *Lophomyrtus obcordata* are now known to be severely damaged by Myrtle Rust. At least three other native myrtles are known to be infected to varying degrees depending on local conditions during growth and flowering. Further work on seedling susceptibility in some environments is required.
7. Earlier reports to the board on the list of threatened plants in CMS outlined changes to the threatened plant due to the 2017 national review of the conservation status of threatened plants. As the 2017 list has yet to be reviewed, there are no changes to list due to changes in conservation status. However, several species have been added to the list because database reviews and three have been removed because of misidentifications, and taxonomic review.
8. Several nationally critically threatened plants are at high risk of becoming nationally extinct in the wild, this includes Kōwhai ngutu-kākā, kākābeak, *Clianthus puniceus* which now only occurs in the wild in a few seed banks, and species such as *Libertia flaciddifolia* and *Veronica jovellaniodes* which are limited to one location each. Some plants are at high risk of regional extinction, for example *Veronica speciosa* is confined to one coastal outcrop in the Auckland region. Patches of threatened plants such as *Ophioglossum petiolatum* have been lost in Auckland, but on a more positive note

work by DOC staff, landowners, community groups and Auckland Council has maintained some threatened plant populations.

9. Biosecurity to protect native plants from overseas plant pest incursions into Auckland continues to remain important.
10. Island biosecurity in addition to protecting wildlife also protects threatened plant populations in biodiversity hotspots such as Hauturu O Toi (*Dactyloctenium*) and the Mokohinau.
11. Some threatened plants receive, or it is planned for them to receive management under the current business plan. These are mostly nationally critical species. Other threatened plants are protected by place- based programmes such as the Hauturu weed programme, or community programmes on Tamahunga or at Oakley Creek.
12. Threatened plant work within the region is greatly assisted by local botanists and especially the Auckland War Museum Herbarium who readily aid with records and identifications. This has resulted in greater understanding of the conservation status of many local species
13. Kermadec Island threatened plant species are now managed by the DOC Whangarei Office. Threatened plant management on Raoul has been affected by Health and Safety concerns as well as Covid. Like other areas the severity of Myrtle rust in the Kermadec pohutukawa on Raoul depends upon the location and season, some areas appear to be hardly affected at all, while others especially young shoots in damp shady areas can be severely affected.
14. Thirty- four species have been added to the list of national threatened or at risk species within Auckland Region as result of a database review and use Geographical Information Systems. At least 17 species are classified as Nationally Critical. Several threatened species are likely to be regionally extinct. Taxonomy reviews of several groups especially orchids may lead to additional threatened species within the region. Field studies are required to confirm the conservation status of several plants.

Conclusion

15. The native flora within the Auckland region contains many threatened and at-risk species. Plant diseases have contributed to some decline in Conservation Status, but other plants have declined because of habitat loss etc. Plant Conservation with the Auckland Region will require ongoing input from both DOC and the wider Auckland Community.

Auckland threatened flora status changes since CMS publication - 2017

Dave Havell – Biodiversity Group, Auckland.

Threat ranking	Common name	Scientific name	Key: Improved Worsened New *taxonomic change New Database Record High Risk Removed + proposed or actual work
Nationally Critical	Holloway's crystalwort	<i>Atriplex hollowayi</i>	(Old record, likely to be locally extinct)
	Copper Beard Orchid	<i>Calochilus herbaceous</i>	(new database record -one Auckland site) +
	Kōwhai ngutu-kākā, kākābeak	<i>Clianthus puniceus</i>	(high risk of extinction in the wild – seed banks) +
	Moss	<i>Cyclodictyon blumeinum</i>	(Raoul)
	Geranium	<i>Geranium aff. retrorsum</i>	(New database record, high risk, one site) +
	Native hibiscus	<i>Hibiscus diversifolius</i>	(mostly cultivated plants – one cemetery record)
		<i>Hibiscus richardsonii</i>	(unlikely, removed)
		<i>Juncus holoschoenus</i> var <i>holoschoenus</i> *	(Old records, some lost sites, survey required)
		<i>Leptinella dispersa</i> var <i>rupestris</i>	(New Database record– survey required, may be only site remaining) +
	Great Barrier Island kānuka	<i>Kunzea sinclairii</i>	(probably stable -monitoring required)
	A Piha moss	<i>Libertia flaccidifolia</i>	(high risk -one location) +
	Leafless mistletoe	<i>Lindbergia maritima</i>	(high risk -one location) +
	Dwarf musk	<i>Korthalsella salicornioides</i>	(patchy – hosts at risk from myrtle rust)
	Stalked adder's tongue fern	<i>Mazus novaezeelandiae</i> subsp. <i>Impolitus</i> f. <i>hirtus</i>	(removed – other form)
		<i>Ophioglossum petiolatum</i>	(probably stable populations on Aotea, site lost in Auckland))
	Sickle fern	<i>Pellaea</i> aff. <i>falcata</i> (b) (AK 330788; “Auckland volcanoes”)*	(not threatened removed)
		<i>Pimelea orthia</i>	(several database records within region – some old)
	Tauhinu	<i>Pomaderris phyllicifolia</i> *	
	Fireweed	<i>Senecio scaberulus</i>	(high risk -survey required) +
koheriki	<i>Scandia rosifolia</i>	(new database records – weed risk) +	
Maire tawake	<i>Syzygium maire</i>	(new database record – highly vulnerable to myrtle rust, National Programme)	
Auckland Mystery Parahebe	<i>Veronica jovellanoides</i> *	(high risk – one location, research required) +	

Threat ranking	Common name	Scientific name	Key: Improved Worsened New *taxonomic change New Database Record High Risk Removed + proposed or actual work
Nationally Endangered	Poor Knights spleenwort	<i>Asplenium pauperequitum</i> (survey required Aotea)	
	Sneezeweed A gumland liverwort Coastal cress Nau, Cook's scurvy grass	<i>Centipeda minima subsp. minima</i> (Casual maintenance – Kawau & Hauturu) <i>Geobelobryum unguiculatum</i> <i>Lepidium flexicaule</i> (Old record, likely to be extinct) <i>Lepidium oleraceum</i> (Island records – associated with seabirds) <i>Leptinella rotundata</i> (new finds on Waitakere coast) <i>Mazus novaezeelandiae subsp. Impolitus f. impolitus</i> (new database record and ID correction) <i>Microlaena carsei</i> (new database record)	
	Forget-me-not	<i>Myosotis pansa</i> * (struggling on DOC sites – weeds) <i>Phylloglossum drummondii</i> (old records likely to be extinct)	
Nationally Vulnerable	Kauri	<i>Agathis australis</i> (National Management Plan)	
	Water brome	<i>Amphibromus fluitans</i> (Aotea, probably stable)	
	Annual fern	<i>Anogramma leptophylla</i>	
	Kohurangi, Kirk's tree daisy	<i>Brachyglottis kirkii var. kirkii</i> (stable in strongholds)	
	Pua o Te Reinga, dactylanthus, flower of Hades	<i>Dactylanthus taylorii</i> (stable Hauturu) <i>Dichelachne micrantha</i> (new database record)	
	Turnip-rooted geranium	<i>Geranium retrorsum</i> <i>Juncus pauciflorus</i> (new database record) <i>Leptinella tenella</i> (new database record)	
	Rāwiri	<i>Kunzea linearis</i>* (Myrtle Rust)	
	Rawirinui, Kanuka	<i>Kunzea robusta</i> (new database record, Myrtle Rust)	
	Koru, colensoa	<i>Lobelia physaloides</i>* (One site Rakitu, outlier population) <i>Machaerina complanata</i> <i>Metrosideros albiflora</i> (Potentially affected myrtle rust) <i>Metrosideros carminea</i> (Infected by myrtle rust) <i>Metrosideros colensoi</i> (Meremere? Not otherwise known in Auckland)	

Threat ranking	Common name	Scientific name	Key: Improved Worsened New *taxonomic change
			New Database Record High Risk Removed + proposed or actual work

Metrosideros diffusa (Myrtle Rust)
Metrosideros excelsa (Occasionally infected by myrtle rust especially seedlings and young growth, where it can sometimes kill stems)
Metrosideros fulgens (Myrtle Rust)
Metrosideros parkinsonii (Myrtle Rust. Localised to Aotea and Hauturu O Toi, needs survey)

Metrosideros perforata (Myrtle Rust)
Metrosideros robusta (Myrtle Rust)
Metrosideros umbellata (myrtle Rust)

Native paspalum, scrobic
Native ox-tongue

Plumed greenhood
Dwarf greenhood
Matangaoa, New Zealand water cress

Poroporo, tupia, taapia
Waitakere Rock koromiko

Paspalum orbiculare
Picris burbridgeae
Pimelea tomentosa
Pittosporum virgatum (new database record, outer Islands))
Pterostylis tasmanica*
Pterostylus puberula*
Rorippa divaricata
Senecio repangae (new database record)
Solanum aviculare var. aviculare
*Veronica bishopiana**

Declining

Sea sedge
Sand coprosma
Sedge
Pinaki, native carrot
Sand spike sedge

Anthosachne kingiana subsp multiflora (new database record)
Carex litorosa
Coprosma acerosa
Cyperus insularis
***Daucus glochidiatus* (stronghold Rangitoto)**
Eleocharis neozelandica (local extinction of some sites – Dune wetlands)

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	Waiū-atua, shore spurge	<i>Euphorbia glauca</i> (Hauturu, otherwise Moutukorea, extinct at some sites)	
	Pīngao, golden sand sedge	<i>Ficinia spiralis</i>	
	Grass-leaved rush	<i>Juncus caespiticus</i>	
	Rauhuia, NZ true flax, NZ linen flax	<i>Linum monogynum</i> G.Forst. var. <i>monogynum</i>	
	Dwarf musk	<i>Mazus novaezeelandiae</i> subsp. <i>Novaezeelandiae</i>	
	Maire	<i>Mentha cunninghamii</i> (new database record)	
		<i>Mida salicifolia</i>	
	Stout water milfoil	<i>Myriophyllum robustum</i>	
	Pikirangi, pirita, red mistletoe	<i>Peraxilla tetrapetala</i>	
		<i>Pimelea longifolia</i> (new database record)	
	Kirk's kōhūhū	<i>Pittosporum kirkii</i>	
	Sand Tussock, hinarepe	<i>Poa billardierei</i> (new database record – struggling in many place)	
		<i>Polygonum plebium</i> (new database record, historic record Aotea)	
	Swamp leek orchid	<i>Prasophyllum hectorii</i> (historic records)	
	Para, para tawhiti, king fern	<i>Ptisana salicina</i>	
		<i>Pterostylis paludosa</i> (new database record)	
	Ranunculus urvilleanus	<i>Ranunculus urvilleanus</i>	
	Fireweed	<i>Senecio biserratus</i>	
	Pūhā, shore pūhā, New Zealand sow thistle	<i>Sonchus kirkii</i>	
	Spiranthes, ladies tresses	<i>Spiranthes novae-zelandiae</i>	
	Tupeia, white mistletoe	<i>Tupeia antarctica</i> (very localised – Motukino)	
	Tītīrangi	<i>Veronica speciosa</i> (one site, privately owned)	
		<i>Zoysia minima</i> (new database record)	
Recovering	Hairy willow herb	<i>Epilobium hirtigerum</i>*	
Relict	Giant – Maidenhair fern	<i>Adiantum formosum</i> (new database record)	
	rengarenga	<i>Arthropodium bifurcatum</i> (new database record)	
	Giant -flowered broom	<i>Carmichaelia williamsii</i>	

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	Pygmy sundew	<i>Drosera pygmaea</i>	
	Monoao	<i>Halocarpus kirkii</i>	
		<i>Nestegis apetala</i> (new database record)	
	Parapara	<i>Pisonia brunoniana</i>	
	Tawapou	<i>Planchonella costata</i> (new database record)	
	Mawhai	<i>Sicyos mawhai</i> (new database record)	
	Tūrepo, large-leaved milk tree	<i>Streblus banksii</i>	
Naturally Uncommon	Fern	<i>Arachniodes aristate</i> (Raoul Island)	
	Shuttleworth's spleenwort	<i>Asplenium shuttleworthianum</i> (Raoul Island)	
	Mokimoki	<i>Blechnum molle</i> *	
	Fern	<i>Blechnum norfolkianum</i>	
	Fern	<i>Blechnum zeelandicum</i> *	
	Pātōtara, parsley fern	<i>Botrychium australe</i>	
		<i>Bromus arenaria</i> (new database record)	
		<i>Bulbophyllum tuberculatum</i> (new database record)	
	orchid	<i>Caladenia alata</i> (new database record)	
	orchid	<i>Caladenia bartlettii</i> (new database record)	
	orchid	<i>Calochilus paludosus</i> (new database record)	
		<i>Calystegia marginata</i> (new database record)	
		<i>Corybas cryptanthus</i> (new database record)	
		<i>Corybas rivularis</i> (new database record)	
	Moss	<i>Cephaloziella aff. Pulcherrima</i>	
	Liverwort	<i>Cheilolejeunea "AK287598"</i>	
	Short-hair plume grass	<i>Dichelachne inaequiglumis</i>	
		<i>Disphyma australe</i> subsp. <i>stricticaule</i>	
	Great Barrier inaka	<i>Dracophyllum patens</i>	
	Liverwort	<i>Drepanolejeunea tematensis</i>	
	Liverwort	<i>Drepanolejeunea vesciculosa</i> subsp. <i>evesciculosa</i>	
	Moss	<i>Ectropothecium sandwichense</i>	

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	Sinclair's tamingi	<i>Epacris sinclairii</i>	
		<i>Gleichenia inclusora</i> (new database record Aotea)	
	Creeping fuchsia	<i>Fuchsia procumbens</i>	
	Giant hypolepis	<i>Hypolepis dicksonioides</i> (new database record)	
	Imperata	<i>Imperata cheesemani</i> (Raoul Island)	
	Beach morning glory	<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i> (Raoul Island)	
		<i>Lagenophora stipitata</i> (new database record)	
	Liverwort	<i>Lejeunea anisophylla</i>	
	Liverwort	<i>Lopholejeunea</i> "black"	
		<i>Myosotis antarctica</i> (new database record, old single record Waitakere)	
	Native ladder fern	<i>Nephrolepis flexuosa</i> (Raoul record)	
	Rawlings strap fern	<i>Notogrammitis rawlingsii</i> *	
		<i>Olearia allomii</i> (new database record Aotea endemic)	
		<i>Olearia angulata</i> (new database record)	
		<i>Oxalis thompsoniae</i> (new database record)	
	Kawakawa	<i>Piper excelsum</i> subsp. <i>Psittacorum</i> *	
		<i>Pittosporum ellipticum</i> (new database record)	
		<i>Pittosporum huttonianum</i> (new database record)	
		<i>Pomaderris hamiltonii</i> (new database record)	
		<i>Pomaderris rugosa</i> (new database record)	
		<i>Pseudopanax ferox</i> (new database record)	
		<i>Senecio marotiri</i> (new database record)	
		<i>Sicyos australis</i> (new database record)	
		<i>Sophora fulvida</i> (new database record)	
		<i>Tetragonia tetragonoides</i> (new database record)	
		<i>Thelymitra Formosa</i> (new database record)	
		<i>Thelymitra ixioides</i> (new database record)	
		<i>Thelymitra tholiformis</i> (new database record)	

Threat ranking	Common name	Scientific name	Key: Improved Worsened New *taxonomic change New Database Record High Risk Removed + proposed or actual work
Not threatened	Tūrutu, swamp blueberry Kawaka, New Zealand cedar	<i>Dianella haemastica</i> <i>Libocedrus plumosa</i> <i>Lobelia</i> aff. <i>Angulata</i> (AK212143)*	
Kermadec species			
Nationally Critical	Kermadec fireweed L'Esperance Rock fireweed Kermadec pōhutukawa	<i>Senecio kermadecensis</i> <i>Senecio esperensis</i> * <i>Metrosideros kermadecensis</i>	
Nationally Endangered	None listed		
Nationally Vulnerable	Kermadec koromiko	<i>Veronica breviracemosa</i>*	
Declining	Sedge	<i>Cyperus insularis</i>	
Recovering	None listed		
Relict	None listed		
Naturally Uncommon	Kermadec Islands hutu A Kermadec rasp fern Kermadec sedge Kermadec tree fern Milnes tree fern	<i>Ascarina lucida</i> var. <i>lanceolata</i> <i>Blechnum kermadecense</i> * <i>Blechnum norfolkianum</i> <i>Carex kermadecensis</i> <i>Cyathea kermadecensis</i> <i>Cyathea milnei</i> <i>Myrsine kermadecensis</i> (new database record)	
References			

Threat ranking	Common name	Scientific name	Key: Improved Worsened New *taxonomic change
			New Database Record High Risk Removed + proposed or actual work

[de Lange, P. J., Rolfe, J. R., Champion, P. D., Courtney, S. P., Heenan, P. B., Barkla, J. W., ... Hitchmough, R. A. \(2017\). Conservation status of New Zealand indigenous vascular plants, 2017. New Zealand Threat Classification Series 22.](#)

[Australasian Virtual Herbarium \(AVH.ala.org.au\)](http://AVH.ala.org.au)

[New Zealand Plant Conservation Network](#)