LATEST ASSESSMENT OF CONSERVATION STATUS OF NEW ZEALAND VASCULAR PLANTS – WHAT DOES IT MEAN FOR THE BAY OF PLENTY?

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Conservation status of all New Zealand plant species is re-evaluated approximately every three years by an experienced team of botanists. Changes are required because additional information has become available, or because habitat has changed for better or worse. In some cases criteria for categories have been changed slightly. The status reflects the national situation for each species. However this is not necessarily a reflection of their situation in the Bay of Plenty, largely because of presence or absence of suitable habitat and historical land uses.

"Checklist of Indigenous and Naturalised vascular plants in the Bay of Plenty" (Beadel et al, 2009), a Rotorua Botanical Society publication, includes for each species the conservation status from the most recent assessment at that time, "Threatened and uncommon plants of New Zealand (2008 revision)" (de Lange et al, 2009). It lists for the Bay of Plenty 32 species considered Threatened, and a further 92 species At Risk, plus eight insufficiently known and three Vagrants or Colonisers, a total of 135 taxa. Vagrants are species whose presence is considered naturally transitory in New Zealand; Colonisers are species thought to have arrived without direct or indirect help from humans and have been successfully reproducing in the wild since 1950 (Townsend, 2008). Neither category is included within the Threatened or At Risk groups.

The latest evaluation, "Conservation status of New Zealand indigenous vascular plants, 2012" (de Lange et al, 2012), was made available in August 2013 as a free downloadable PDF on the Department of Conservation website: (http://www.doc.govt.nz/publications/science-and-technical/products/series/new-zealand-threat-classification-series , de Lange, 2013)

Status changes

Of the species listed in the 2009 Bay of Plenty checklist, there are changes of national status for 24 taxa, and status of some species has deteriorated (Table 1). The 2012 list has 33 of these species classed as Threatened (one more than in 2009), 90 listed as At Risk (two less than in 2009), and eight insufficiently known, plus three Colonisers or Vagrants, giving a total of 134 species. Thus, the total is one less, but there is one more considered Threatened than in 2009. Three species from the 2009 list are now considered Not Threatened, and two species have moved from being considered Not Threatened to the At Risk list.

Of the 24 changes, 13 species have changed rank but remain assessed as Threatened (seven species, four one or two steps better, three one step or two steps worse) or At Risk (six species, three better, three worse). The other six have changed between Threatened, At Risk and Not Threatened categories. The status of one of these species, (*Juncus pauciflorus*), has deteriorated from At Risk to Threatened. But four species have better status: one species, (*Lobelia carens*), has improved from Threatened – Nationally Endangered to At Risk - Declining, probably because more information has now become available for this recently published species; three species have improved in status from At Risk to Not Threatened, probably also because of new information. These are *Dianella haematica*, formerly At Risk-Declining, also a recently published species; *Lobelia perpusilla*, formerly At Risk-Naturally Uncommon; and *Ranunculus limosella*, formerly At Risk-Declining.

Of the remaining five species, two have probably been extinct in the Bay of Plenty for a long while, not having been there recorded since the 19th Century (*Atriplex hollowayi*, *Daucus glochidiatus*). Another two species, *Isoetes kirkii* (formerly Not Threatened, now At Risk-Declining) and *Lepilaena bilocularis* (formerly At Risk-Naturally Uncommon, now Threatened-Nationally Vulnerable), both freshwater aquatic species that show preference for low nutrient waters, have not been recorded in the Bay of Plenty in recent

decades. This is not unexpected considering the deterioration of water quality of many of our lowland lakes and rivers. The fifth species, *Pterostylis tasmanica*, also known as *Plumatochilos tasmanicum,* has an unvalidated record from Rotorua from the 1950s (as *Pterostylis plumosa*, Ecroyd et al 1990), but may, according to the NZ Orchid Group website (www.nativeorchids.co.nz) be present in the northern Kaimai Ranges, including the Te Aroha Ecological District, which is within the Bay of Plenty region.

Table1. Status changes for BOP species 2014

2012 list	2009	2012	change	still T	still AR	AR to T	T to AR	AR to NT	NT to AR
Amphibromus fluitans	NE	NV	better	T					
Atriplex hollowayi α	NV	NC	worse	T					
Centipeda minima subsp. *minima*	NC	NE	better	T					
Daucus glochidiatus α	NC	NV	better	T					
Lepidium oleraceum	NV	NE	worse	T					
Pterostylis puberula 2009: *Linguella puberula*	NC	NV	better	T					
Myosotis saxosa	NE	NC	worse	T					
Pterostylis micromega	NC	NE	better	T					
Pterostylis tasmanica ß 2009: *Plumatochilos tasmanicum*	NE	NV	better	T					
Utricularia australis	NE	NC	worse	T					
Christella aff. *dentata* " thermal"	AR-D	AR-NU	better		AR				
Ficinia spiralis 2009: *Desmoschoenus spiralis*	AR-Relict	AR-D	worse		AR				
Pellaea falcata	AR-Relict	AR-D	worse		AR				
Prasophyllum hectorii (also incorrectly as *P. patens* s.l.)	AR-Relict	AR-D	worse		AR				
Schoenus fluitans	AR-D	AR-NU	better		AR				
Thelypteris confluens	AR-D	AR-NU	better		AR				
Juncus pauciflorus	AR-D	NV	worse			NV			
Lepilaena bilocularis µ	AR-NU	NV	worse			NV			
Lobelia carens	NE	AR-D	better				AR-D		
Dianella haematica	AR-D	NT	better					NT	
Lobelia perpusilla	AR-NU	NT	better					NT	
Ranunculus limosella	AR-D	NT	better					NT	
Isoetes kirkii µ	NT	AR-D	worse						AR-D

Zostera muelleri subsp. *novazelandica* 2009: subsp. *novozelandica*	NT	AR-D	worse						AR-D
Total: 24				**10**	**6**	**2**	**1**	**3**	**2**

α = extinct in BOP; μ = may be extinct in BOP; ß = location validity uncertain
T = Threatened; AR= At Risk

Threat classification (from de Lange 2009)

NC	Threatened - Nationally Critical
NE	Threatened - Nationally Endangered
NV	Threatened - Nationally Vulnerable
AR-D	At Risk - Declining
AR-R	At Risk - Relict
AR-NU	At Risk - Naturally Uncommon
V	Vagrant
Col	Non-Resident Native - Coloniser
DD	Data Deficient

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