Muehlenbeckia astonii

COMMON NAMES
shrubby tororaro, wiggywig, mingimingi

BIOSTATUS
Native – Endemic taxon

CURRENT CONSERVATION STATUS
2023 | Threatened – Nationally Endangered | Qualifiers: CD, PF, RF
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION
Rare brownish shrub with tangled zig-zagging branches bearing small heart shaped leaves and white fruit with a black seed on top. Twigs orange. Leaves 2-15mm wide, with large dent at tip, on a 3-10mm long often brown grooved stalk, in clusters. Flowers small.

FLOWER COLOURS
Green, White

DETAILED DESCRIPTION
Deciduous, gynodioecious shrub forming dense, interwoven masses up to 4 x 4 m. Stems 10-20 mm diam., maroon-black, cane-like, numerous, arising from a stout, woody, rootstock, 0.5-1 m diam. Branches numerous. Branchlets slender, flexuous, divaricating and interlacing. Leaves in fascicles of 2-5 on short branchlets, or widely spaced along elongated emergent branchlets; petiole slender 3-10 mm; leaf lamina 2-15 mm diam., broadly-obcordate, rarely pandurate or entire; apex usually notched 1(-4) times, cuneately narrow to base. Flowers green or white, on short, axillary fascicles. Male and perfect flowers present on the same plant, the male flower bearing 8 functional stamens, and a rudimentary gynoecium; perfect flowers with functional stamens and gynoecium; female flowers on separate plants, ovary bluntly trigonous; stigmas 3, fimbriate, androecium rudimentary. Fruit an exposed 2-2.5 x 1.25 mm trigonous, dull black rugose nut; surrounding tepals white, succulent.

SIMILAR TAXA
Muehlenbeckia complexa is somewhat similar but this is a scrambler, not a shrub and has twining, tangled, tomentose, orange-brown young stems with no distinct trunk nor thickened branches. The nuts of M. complexa fruits has shiny faces, while those of M. astonii are distinctly rugose

DISTRIBUTION
Endemic. North and South Islands. In the North Island known from Honeycomb Light (Eastern Wairarapa) south to Cape Palliser and just west of Sinclair Head. In the South Island in Marlborough formerly present on the Wairau Bar and Wither Hills, now known only from Clifford Bay, the lower Awatere Catchment to Cape Campbell and Kekerengu. Also in North Canterbury, on Banks Peninsula near Lake Forsyth and on Kaitorete Spit. An old herbarium specimen in Kew suggests it may have once been in the lower Waitaki Valley, South Canterbury.

Fruit. In cultivation ex Wainuiomata. Photographer: Jeremy R. Rolfe, Date taken: 22/04/2007, Licence: CC BY.

Stipule. In cultivation. Photographer: Jeremy R. Rolfe, Date taken: 28/12/2014, Licence: CC BY.

HABITAT
Coastal to lowland. This species is associated with “grey” scrub communities, largely confined to drier lowland parts of eastern New Zealand. It is found on moderate to high fertility soils. The plant is often found in association with Coprosma crassifolia Colenso, Coprosma propinqua A,Cunn., Muehlenbeckia complexa (A.Cunn.) Messn. (small-leaved pohuehue), Discaria toumatou Raoul (matagouri), Olearia solandri Hook.f. (coastal tree daisy), Ozothamnus leptophyllus (G.Forst.) I.Breitwieser et J.M.Ward (tauhinu) and Rubus squarrosus Fritsch (leafless lawyer).

THREATS
The survival in the wild of Muehlenbeckia astonii is threatened by lack of regeneration due to competition from exotic grasses, browsing animals and trampling. It is also threatened by loss of its original habitat through disturbance, fragmentation and fire. Many of the shrubby tororaro that survive in the wild are single plants isolated from others of their species. Because male and female flowers occur on separate plants, these specimens have no opportunities to reproduce.

GENUS
Muehlenbeckia

FAMILY
Polygonaceae

AUTHORITY
Muehlenbeckia astonii Petrie

SYNONYMS
None

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
August - January (- May).

FRUITING
October - June.

PROPAGATION TECHNIQUE
Easy from fresh seed and hardwood cuttings, which should be taken in winter. An excellent shrub for hedges and wind breaks. Once established very drought tolerant. The deciduous habit is unusual, and the bare, interlacing, wiry dark stems in winter are as attractive as the bright green foliage seen in summer. The fleshy white fruits are sugary, edible, and attract birds and lizards to the garden. Will hybridise with other Muehlenbeckia species, so if pure seed is needed grow well away from other species. Most horticultral stock is female and so will not set viable seed. Male plants have varying frequencies of perfect flowers, and so can set viable seed.

CULTIVATION
Commonly available from most commercial plant and specialist native plant nurseries. Popular in amenity plantings in some cities, e.g. Wellington.

PLANT OF THE MONTH
This plant has been featured as a Plant of the Month – see Trilepidea: NZPCN newsletter for March 2006 for the full story.

ETYMOLOGY
muehlenbeckia: Named after a botanist named Muehlenbeck
astonii: After Aston

NVS CODE
MUEAST

CHROMOSOME NUMBER
2n = 20

PREVIOUS CONSERVATION STATUSES
2017 | Threatened – Nationally Endangered | Qualifiers: CD, RF
2012 | Threatened – Nationally Endangered | Qualifiers: CD, RF
2009 | Threatened – Nationally Endangered | Qualifiers: CD, RF
2004 | Threatened – Nationally Vulnerable
Jump to current conservation status

REFERENCES AND FURTHER READING
de lange, Peter and Cathy Jones (2000). Shrubby tororaro (Muehlenbeckia astonii) recovery plan (2000-2010). Threatened Species Recovery Plan 31. Department of Conservation

ATTRIBUTION
Fact sheet prepared for NZPCN by P.J. de Lange December 2004. Original description by P.J. de Lange.

NZPCN FACT SHEET CITATION
Please cite as: de Lange, P.J. (Year at time of access): Muehlenbeckia astonii Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.
https://www.nzpcn.org.nz/flora/species/muehlenbeckia-astonii/ (Date website was queried)

MORE INFORMATION
https://www.nzpcn.org.nz/flora/species/muehlenbeckia-astonii/

PDF DATE
25 May 2026