

Olearia gardneri

COMMON NAMES

deciduous tree daisy

BIOSTATUS

Native

CATEGORY

Vascular

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION

Rare small-leaved shrub with wide-angled, reddish, round stems with a prominent raised ridge on opposite sides; stems bearing clusters of thin leaves; inhabiting river valleys of the southern North Island. Leaves 10–15 mm long by 7–10 mm wide, oval. Flowers small, white, in small groups at base of leaves.

FLOWER COLOURS

White

DETAILED DESCRIPTION

Deciduous shrub or small tree up to 3 m tall; stems often layering. **Bark** greyish–white, rough, grooved. **Branchlets** with 2 flanges, slender, dark reddish brown. **Leaves** of seedlings broadly deltoid, margins with 3–4 prominent teeth. Leaves of adults opposite or in fascicles of 2–4 on brachyblasts, spatulate, petioles 5–10 mm long; lamina 10–35 × 7–17 mm, broadly ovate-elliptic, light green above, more or less glabrous below with a few scattered long and silky hairs but no tomentum, margin entire, apex obtuse and apiculate. **Inflorescences** solitary or in fascicles of 2–6 capitula on brachyblasts. **Capitula** c. 5 × 4 mm, peduncles 6–10 mm long. **Involucral bracts** c. 16, obovate, glabrous, membranous, purple tinged, apex acute. **Florets** 10–19, white. **Ray florets** c. 9, 5 mm long, limb c. 1 mm long. **Disc florets** c. 10, 6 mm long, lower half of corolla tube with very short, rather glandular hairs. **Achenes** 1–2 mm long, narrow–obovate, with short patent or slightly antrorse hairs; pappus hairs 2–3 mm long.

SIMILAR TAXA

Olearia gardneri is allied to the South Island *O. hectorii* Hook.f. From that species it differs by the broadly deltoid, truncate, rather than oblanceolate juvenile leaves, by the smaller, distinctly less hairy adult leaves, white rather than yellow flowers, and narrowly lanceolate, toothed, finely hairy phyllaries (bracts surrounding the flowers). The phyllary hairs are long and wavy.

DISTRIBUTION

Endemic. New Zealand: North Island (formerly known from Hawke's Bay, southern central North Island (near Taihape) and Wairarapa. Now known only from the upper Turakina Valley, the vicinity of Mataroa near Taihape and from widely scattered sites in the eastern Wairarapa; in 2014 a new population was found east of Masterton, comprising more shrubs (some 400) than all other known populations combined.

HABITAT

The exact habitat preferences of this species are unclear. The majority of plants have been gathered from mataī/tōtara/kahikatea forest remnants on alluvial terraces, developed on calcareous siltstones. In these habitats *O. gardneri* is associated with the dense shrub tier dominated by numerous divaricating shrubs and trees, which is common to this forest type in the drier eastern North Island. Plants often grow adjacent to semi-permanent water pools or in sites flooded in winter.



In cultivation ex Mataroa. Photographer: Colin C. Ogle, Date taken: 01/10/2007, Licence: CC BY-NC.



Mt Bruce, Wairarapa. Photographer: John Barkla, Licence: CC BY.

CURRENT CONSERVATION STATUS

2023 | Threatened – Nationally Endangered | Qualifiers: CD, DPS, DPT, PF, RF

THREATS

Approx 500 adult specimens left in the wild. Many sites are single plants, often in ill-thrift and/or growing in severely deteriorated habitats. This species remains acutely threatened through recruitment failure (the seed cannot germinate through the dense grass swards which now surround most trees), the ill-thrift and presumed old-age of many of the surviving trees. Indications are that seed produced by many trees has very low viability, and there are concerns that the species may have a high level of self-incompatibility. This will seriously impact on current management practices which involve harvesting seed from the wild, germinating plants, and planting these back directly under their parent tree(s).

DETAILED TAXONOMY

FAMILY

Asteraceae

AUTHORITY

Olearia gardneri Heads

SYNONYMS

None

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

October–December

FRUITING

February–April

PROPAGATION TECHNIQUE

Can be grown from fresh seed when available. Hardwood cuttings will strike if taken after leaf fall and placed within a cold frame.

OTHER INFORMATION

BOTANICAL HISTORY NOTE

You can read more about the discovery of this plant in this Auckland Botanic Society [newsletter article](#). Numerous specimens grow in the grounds of the Masterton Office, New Zealand Department of Conservation, and at Pukaha Mount Bruce National Wildlife Centre.

ETYMOLOGY

olearia: Named after Johann Gottfried Olearius, a 17th-century German scholar, writer of hymns and author of *Specimen Florae Hallensis*

gardneri: Commemorating the New Zealand botanist Rhys O. Gardner (1949-).

CHROMOSOME NUMBER

2n = 108

PREVIOUS CONSERVATION STATUSES

2017 | Threatened – Nationally Endangered | Qualifiers: CD, RF

2012 | Threatened – Nationally Critical | Qualifiers: CD, RF

2009 | Threatened – Nationally Critical | Qualifiers: CD, RF

2004 | Threatened – Nationally Critical

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

de Lange PJ, Heenan PB, Norton DA, Rolfe JR, Sawyer JWD. 2010. Threatened Plants of New Zealand. Canterbury University Press, Christchurch. 471 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. <https://doi.org/10.1111/j.1095-8339.1998.tb02100.x>.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 1 July 2007. Description by P.B. Heenan and P.J. de Lange subsequently published in de Lange et al. (2010); revisions and additions C. Ogle 2018, mainly to note the 2014 find of a new, relatively large population near Masterton

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Olearia gardneri* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/olearia-gardneri/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/olearia-gardneri/>

PDF DATE

16 October 2024