

Olearia gardneri

COMMON NAME

deciduous tree daisy

SYNONYMS

None

FAMILY

Asteraceae

AUTHORITY

Olearia gardneri Heads

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

CHROMOSOME NUMBER

2n = 108

CURRENT CONSERVATION STATUS

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

PREVIOUS CONSERVATION STATUSES

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

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

2004 | Threatened – Nationally Critical

BRIEF 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.

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.



Seedling grown from Wairarapa. Photographer: Tony Silbery, Licence: CC BY-NC.



Wairarapa. Photographer: Tony Silbery, Licence: CC BY-NC.

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.

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.

FLOWERING

October–December

FLOWER COLOURS

White

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.

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).

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–)

NOTE

Numerous specimens grow in the grounds of the Masterton Office, New Zealand Department of Conservation, and at Pukaha Mount Bruce National Wildlife Centre.

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

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>.

NZPCN FACT SHEET CITATION

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MORE INFORMATION

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