

# 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

2018 | Threatened – Nationally Endangered

## 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 10-15mm long by 7-10mm wide, oval. Flowers small, white, in small groups at base of leaves.

## DISTRIBUTION

Endemic. North Island. Formerly known from the Hawkes Bay, southern Central North Island (near Taihape) and Wairarapa. Now only known 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



Wairarapa. Photographer: Tony Silbery

## HABITAT

The exact habitat preferences of this species are unclear. The majority of plants have been gathered from Matai/Totara/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 semi-permanent water pools or in sites flooded in winter.

## FEATURES

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. Inflorescence 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 110 adult specimens left in the wild. The majority occur on unprotected land next to a reserve near Taihape. Most other 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 Area Office, Wellington Conservancy, New Zealand Department of Conservation, and at Mt 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, P.J.; Heenan, P.B.; Norton, D.A.; Rolfe, J.R.; Sawyer, J.W.D. 2010: Threatened Plants of New Zealand. Canterbury University Press, Christchurch.

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.

## 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/>