# Kunzea serotina

## COMMON NAMES
makahikātoa, kānuka

## BIOSTATUS
Native – Endemic taxon

## CURRENT CONSERVATION STATUS
2023 | Not Threatened | Qualifiers: PD
Jump to previous conservation statuses

## CATEGORY
Vascular

## STRUCTURAL CLASS
Trees & Shrubs - Dicotyledons

## SIMPLIFIED DESCRIPTION
Small columnar tree of mountains and intermontane basins of the North and South Islands. Bark copiously flaking, and often massing at trunk base in piles like wood shavings. Branches obliquely fastigiate ascending, bearing masses of small dark green to bronze green leaves and clusters of small white flowers. Branchlets finely, copiously covered in short, erect hairs. Leaves to 6.3 mm long, coriaceous. Flowers borne in dense 'corymbiform' clusters, white with a red centre. Fruit a small dry capsule 1.2–3.0 × 1.2–3.4 mm.

## FLOWER COLOURS
White

## DETAILED DESCRIPTION
Erect, columnar to tightly pyramidal, fastigiate, densely branched shrubs or trees 3–20 × 2–4 m developing with time into less densely branched, open pyramidal crowns. **Trunk** usually single, very rarely 2–3 arising from base, 0.10–0.86 m d.b.h., with basal portion of trunk covered in numerous, curled, chartaceous bark remnants. **Bark** chartaceous, greyish-white to pinkish-white, heavily cracked, often crumpled, detaching as inrolled, curled, sinuous, irregular pieces, pieces often congregating in branch forks and forming deep drifts at trunk base. **Branches** numerous arising at or near trunk base; short and stout, obliquely ascending, fastigiate; branchlets numerous, very leafy; indumentum copious, sericeous; persistent, divergent 0.05–0.08 µm, apices curved or slightly curled. **Leaves** heterophyllous; seedling, subadult leaves and that of reversion shoots, spreading to patent; lamina 0.8–7.8 × 0.6–1.2 mm, red-green, pale green suffused with red, rarely bright green, linear-lanceolate to lanceolate; flat or involute, apex acute to obtuse, finely cuspidate; adult leaves, usually densely aggregated along brachyblasts, lamina 2.0–6.3 × 0.8–1.8 mm, dark glossy green or bronze-green, linear-oblanceolate, oblanceolate to obovate; strongly recurved from about ½ of total length, apex initially acute to subacute, maturing obtuse to rounded, often cuspidate; base attenuate; glandular punctate, glabrous, very rarely with fine antrorse hairs near base; lamina margin sparsely hairy, usually in one interrupted row failing well short of leaf apex. **Inflorescence** a compact 1–12-flowered corymbiform botryum up to 25 mm long, borne on alternate, distinctly spiralled, densely leafy, brachyblasts up to 15 mm long. **Pherophylls** deciduous, mostly foliose, 0.9–2.5 mm long, green to bronze-green, spathulate, spathulate-orbicular, rarely pandurate or lanceolate, margins and apex finely ciliate. **Flower buds** clavate to



In cultivation ex Te Porere. Photographer: Jeremy R. Rolfe, Date taken: 19/07/2007, Licence: CC BY.




Desert Road. Photographer: Jeremy R. Rolfe, Date taken: 11/03/2015, Licence: CC BY.

pyriform, apex flat to weakly domed prior to bud burst, calyx valves not or scarcely meeting. **Fresh flowers** 2.8–8.8 mm diam. **Hypanthium** 1.6–3.4 × 1.5–3.8 mm, dark green or red-green, drying brown-green to red-brown; urceolate to campanulate terminating in a distinctly thicker rim bearing five persistent calyx lobes; copiously dotted with red oil glands, finely puberulent to ± glabrescent; hairs if present short, divergent. **Calyx lobes** 5, upright, 0.8–1.2 × 0.7–1.2 mm, persistent, ovate to broadly ovate, central portion of lobe pale green or yellow-green, with margins usually cream to pale pink, surface glandular punctate, oil glands usually pink in exposed situations otherwise ± colourless, glabrous except ciliate margins. **Receptacle** pink at anthesis, darkening to dark crimson magenta after fertilisation. **Petals** 5–6, 1.4–2.0 × 1.2–2.0 mm, white, sometimes basally flushed pink, narrowly orbicular to broadly ovate or cuneate, apex obtuse to rounded, margins ± frayed to finely and irregularly toothed, oil glands yellow when fresh, when dried very pale yellow to colourless. **Stamens** 20–38 in 1–2 weakly defined whorls, arising from receptacular rim, filaments white occasionally tinged rose-pink toward base. **Anthers** dorsifixed, 0.04–0.06 × 0.02–0.04 mm, testiculate to ellipsoid. **Pollen** white. **Anther connective gland** prominent, orange often flushed rose when fresh, drying dark orange-brown or purple, spheroidal, distinctly papillate. **Ovary** 3–5 locular, each with 10–23 ovules in two rows on each placental lobe. **Style** 0.6–1.2 mm long, white; stigma capitate, scarcely wider than style, usually flat to very weakly domed, greenish-white, cream or pale pink, surface finely papillate. **Fruits** rarely persistent 1.2–3.0 × 1.2–3.4 mm, light brown to grey, finely hairy, urceolate to shortly-campanulate, rarely cupular, splits concealed by dried, suberect to erect, free portion of hypanthium and incurved calyx lobes. **Seeds** 0.60–1.00 × 0.48–0.60 mm, narrowly oblong, oblong, oblong-obovate, orange-brown to dark brown, surface coarsely reticulate.

## SIMILAR TAXA

*Kunzea serotina* is frequently sympatric with *Kunzea robusta*, and to a lesser extent *K. ericoides* and *K. tenuicaulis*. *Kunzea serotina* is distinguished from these species by the obliquely ascending, fastigiate branches, divergent branchlet hairs mostly divergent 0.03–0.12 mm long; pherophylls foliose, mostly spathulate (sometimes pandurate), and by the flower petals which have yellow oil glands when fresh or dry.

## DISTRIBUTION

Endemic. New Zealand: North Island (from Central Volcanic Plateau south through central North Island and east to southern Wairarapa), South Island (easterly from Marlborough to Central Otago).

## HABITAT

*Kunzea serotina*, in the North Island part of its range is mostly a montane to subalpine species, extending into lowland sites in forest flats and other places where temperature inversions occur. In the South Island it is more wide ranging but still most confined to mountain areas and intermontane basins.

## THREATS

When myrtle rust (*Austropuccinia psidii*) was detected in New Zealand (May 2017) the conservation status was upgraded as a precautionary measure from 'Not Threatened' to 'Threatened – Nationally Vulnerable' because, on best advice, it was believed that no indigenous Myrtaceae had resistance to the myrtle rust disease (de Lange et al. 2018). Currently there have been no reports of infected wild trees of *Kunzea* but inoculation trials of the New Zealand species has demonstrated they are susceptible, and further that over time, infected specimens will die. Only time will tell if wild populations of *Kunzea* will be threatened by this rust fungus.
Myrtle rust (*Austropuccinia psidii*) is an invasive fungus that threatens native myrtle species. Learn more myrtlerust.org.nz.

## GENUS

Kunzea

## FAMILY
Myrtaceae

## AUTHORITY
Kunzea serotina de Lange et Toelken

## SYNONYMS
None - first described in 2014

## ENDEMIC TAXON
Yes

## ENDEMIC GENUS
No

## ENDEMIC FAMILY
No

## FLOWERING
November–May

## FRUITING
January–December

## PROPAGATION TECHNIQUE
Easily grown from fresh seed. Can be grown with difficulty from semi-hard and hardwood cuttings. Although *Kunzea serotina* will flourish in any well drained soil, planted in full sun it does best in cooler climates.

## ETYMOLOGY
**kunzea**: Named after Gustav Kunze (4 October 1793, Leipzig -30 April 1851), 19th century German botanist from Leipzig who was a German professor of zoology, an entomologist with an interest mainly in ferns and orchids
**serotina**: Late flowering

## MANAAKI WHENUA ONLINE INTERACTIVE KEY
Key to the Myrtaceae of New Zealand

## NVS CODE
KUNSER

## CHROMOSOME NUMBER
2n = 22

## PREVIOUS CONSERVATION STATUSES
2017 | Threatened – Nationally Vulnerable | Qualifiers: DP, De
2013 | Not Threatened
Jump to current conservation status

## REGIONAL CONSERVATION STATUSES
Otago: 2025 | Regionally Not Threatened | Qualifiers: De Help
The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Otago conservation status information is sourced from the "Conservation Status of Indigenous Vascular Plants in Otago, 2025" Jarvie S et al. (2025) report.

## REFERENCES AND FURTHER READING
de Lange PJ. 2014. A revision of the New Zealand *Kunzea ericoides* (Myrtaceae) complex. *Phytokeys 40*: 185 p. https://doi.org/10.3897/phytokeys.40.7973.
de Lange PJ, Rolfe JR, Barkla JW, Courtney SP, Champion PD, Perrie LR, Beadel SM, Ford KA, Breitwieser I, Schönberger I, Hindmarsh-Walls R, Heenan PB, Ladley K. 2018. Conservation status of New Zealand indigenous vascular plants, 2017. *New Zealand Threat Classification Series 22*. Department of Conservation, Wellington, NZ. 82 p. https://www.doc.govt.nz/globalassets/documents/science-and-technical/nztcs22entire.pdf.

## ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 25 August 2014. Description modified from de Lange (2014).

## NZPCN FACT SHEET CITATION

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## MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/kunzea-serotina/

## PDF DATE

27 May 2026