

Korthalsella salicornioides

COMMON NAME

dwarf mistletoe

SYNONYMS

Viscum salicornioides A.Cunn.

FAMILY

Viscaceae

AUTHORITY

Korthalsella salicornioides (A.Cunn.) Tiegh.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

KORSAL

CHROMOSOME NUMBER

2n = 28

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, Sp

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: Sp

2009 | At Risk – Naturally Uncommon | Qualifiers: EF

2004 | Sparse

BRIEF DESCRIPTION

Dense mass of green to reddish-yellow beaded succulent stems to 10cm long growing on twigs of another plant (mainly mānuka and kānuka). Leaves (stems) 3–10mm long by 1–3mm wide, round. Flowers tiny, fruit small, yellowish.

DISTRIBUTION

Endemic. New Zealand: North Island (from Te Paki south), South Island, Stewart Island/Rakiura. Easily overlooked.

HABITAT

Coastal to upper montane and subalpine (0–1300 m a.s.l.). A parasite found in forest and shrublands. Most commonly found parasitic on *Leptospermum scoparium* J.R.Forst. et G.Forst. (kahikatoa/mānuka) and species of *Kunzea* (rawiri/titiri/kānuka).



Black Jack. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



A Korthalsella plant growing on manuka. Photographer: A. J. Townsend, Licence: CC BY-NC.

DETAILED DESCRIPTION

Hemiparasitic, succulent, much branched, green, yellow-green, red-green to orange-green plant parasitising exposed branches and branchlets of host. Haustoria internal, dark green, encircling stele of host. Plants 30–100 × 10–450 mm, erupting from host bark, individual aerial structures lasting from 1–4 years before dehiscing and resprouting. **Branches** arising at narrow angles. **Internodes** terete, succulent to subsucculent, 3–10 × 1–3 mm, narrowed to a finely constricted node. **Collar** truncate, up to 0.5 mm long, sheathing at nodes. **Flowers** scarcely differentiated from barren stems, 3–10 × 1 mm. **Fruit** 1.5 mm long, ovoid to globular, dispersed by birds or ejected under hydraulic pressure.

SIMILAR TAXA

None. The two other species of *Korthalsella* Tiegh. endemic to New Zealand have flattened internodes and fewer branches arising at wider angles.

FLOWERING

October–March

FRUITING

October–May

LIFE CYCLE

Fleshy berries are dispersed by ballistic projection, attachment and possibly frugivory (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Difficult—should not be removed from the wild.

THREATS

An apparently naturally uncommon and biologically sparse species which can on occasion be locally abundant, but is more usually known from large parts of its likely range by only spot or scattered occurrences. In some parts of its range it is under threat due to the felling of its main host species (*Leptospermum* and *Kunzea*) for firewood and also to clear land for farming or pine plantations.

When myrtle rust (*Austropuccinia psidii*) was detected in New Zealand (May 2017) the conservation status of *Korthalsella salicornioides* was upgraded as a precautionary measure to 'Threatened – Nationally Critical' because, on best advice, it was believed that no indigenous Myrtaceae had resistance to the myrtle rust disease (de Lange et al. 2018). *Korthalsella salicornioides* is almost exclusively parasitic on species of *Leptospermum* and *Kunzea*, both genera in the Myrtaceae family. 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 that, over time, infected specimens will die. Only time will tell if wild populations of *Kunzea* and *Leptospermum* 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.

ETYMOLOGY

korthalsella: After Korthals, botanist

salicornioides: Like *Salicornia* (glasswort)

WHERE TO BUY

Not commercially available

HOSTS

The most host-specific of the three New Zealand species of the genus, the favoured host is *Leptospermum scoparium* followed by *Kunzea* species. However *Sophora chathamica* Cockayne, *Myrsine australis* (A.Rich.) Allan, *Dracophyllum acerosum* Berggg., *Melicope simplex* A.Cunn. and *Gaultheria antipoda* G.Forst. are sometimes also parasitised.

ATTRIBUTION

Fact sheet prepared by P.J. de Lange for NZPCN (1 June 2013).

REFERENCES AND FURTHER READING

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NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/korthalsella-salicornioides/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/korthalsella-salicornioides/>