

Dactylanthus taylorii

COMMON NAME

Wood rose, pua o te reinga, flower of Hades

SYNONYMS

None known.

FAMILY

Mystropetalaceae

AUTHORITY

Dactylanthus taylorii Hook.f.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Yes

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

DACTAY

CURRENT CONSERVATION STATUS

2012 | Threatened – Nationally Vulnerable | Qualifiers: CD, PD, RF, Sp

PREVIOUS CONSERVATION STATUSES

2009 | Threatened – Nationally Vulnerable | Qualifiers: CD, PD, RF, Sp

2004 | Serious Decline

DISTRIBUTION

Distributed from Northland down to the Wairarapa. Historically recorded in the Kahurangi National Park area of northern South Island.

HABITAT

Dactylanthus grows parasitically on the roots of about 30 species of native hardwood trees and shrubs such as *Griselinia littoralis* and *Pseudopanax arboreus* and *Pittosporum tenuifolium*. The plant prefers damp but well drained places and is often found at the head of small streams. It has been found at altitudes from near sea level to 1200m.



Inflorescences. Photographer: Chris Ecroyd



An image of Dactylanthus inflorescence.
Photographer: Department of Conservation

FEATURES

Dioecious, achlorophyllous, holoparasitic, root-parasite. Rhizomes mostly buried just below soil surface, usually terminal on host root and attached over a broad irregular surface to expanded end of host root; \pm hemispherical, globose, up to 600 mm diameter, surface dark brown, externally covered with hard angular or warty papillae and old flower and fruiting bases, internally fleshy and \pm starchy. Shoots seasonal, numerous, arising irregularly and mostly from base of rhizomes, unbranched 100–300 \times 10–15 mm long, covered with glossy, dark brown, maroon-brown to red-brown, membranous, sessile, imbricating scale leaves; lamina 5–20 \times 5–9 mm, broadly deltoid, claw-like, long-tapering from base, subacute to acute, entire, glabrous, becoming larger and paler toward shoot apex. Inflorescence a terminal capitulum of 15–28 spadices, 20–40 mm diameter, surrounded by an involucre of brown, cream, pink, red or yellow scale leaves, these up to 30 \times 15 mm; spadix-axis erect, 20–25 mm long, \pm grooved, flowers crowded on upper 2/3, occasionally diffusely scattered, sometimes admixed with bracts in lower 1/3. Flowers densely crowded; male perianth segments, 0–4 filamentous; stamen usually 1, rarely 2, subsessile or sessile, filament 0.2–0.45 mm, anther bilobed, white, pollen whitish, abundant; female perianth segments 2, usually unequal, adnate to ovary, ovary 2-loculed, style $>$ ovary, filiform, stigma simple. Fruit 1.5–1.8 mm, ovate, asymmetric, angular, dark purple-brown to black brown, terminal end bearing remnant style and perianth. Nut 1.3–1.5 mm, elliptic to elliptic-ovate, asymmetric, glossy dark red-brown or purple-brown, glabrous.

SIMILAR TAXA

None but sometimes confused with galls and root galls found on beech trees, Rhizobium and Frankia nodules and other growths on exposed roots and basal trunks have been collected as wood rose. *Dactylanthus* can be distinguished from these by the presence of small circular scars on the exposed tuber left by former buds and flowering shoots.

FLOWERING

January to May

FLOWER COLOURS

White

FRUITING

January to August

LIFE CYCLE

Fleshy nuts are dispersed by granivory and water (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Unknown.

THREATS

Habitat destruction, collectors of wood roses and browsing animal such as possums. Cattle destroy plants through trampling. Decline in numbers of short-tailed bats may have also caused a decline in this species. Rats and pigs are also major browsing threats alongside possums.

WHERE TO BUY

Not available for sale.

FURTHER INFORMATION

For further information or to join Friends of *Dactylanthus* newsletter distribution list contact Paul Cashmore, DOC *Dactylanthus* Recovery Group leader (pcashmore@doc.govt.nz).

[Dactylanthus Recovery Plan \(DOC\)](#)

ATTRIBUTION

Factsheet and description prepared for NZPCN by P.J. de Lange. Description based on Allan (1961) and additional observations of herbarium specimens by P.J. de Lange.

REFERENCES AND FURTHER READING

- Allan, H.H. 1961. *Flora of New Zealand. Volume I. Indigenous Tracheophyta: Psilopsida, Lycopsida, Filicopsida, Gymnospermae, Dicotyledones*. Wellington, Government Printer.
- la Cock, G.D.; S. Holzapfel; D. King, and S. Singers. 2005. *Dactylanthus taylorii* recovery plan, 2004–2014. Threatened Species Recovery Plan 56. Department of Conservation
- Hill, H. 1926. *Dactylanthus Taylori*. Order Balanophoreae; Tribe Synomorieae. Transactions and proceedings of the Royal Society, Vol. 56.
- Image of Dactylanthus - rhizome and pistillate flowers (Transactions of the NZ Institute, Vol 56).
- Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285–309
- Ju, H-J.; Hu, J-M.; Anderson, F.E.; Der, J.P.; Nickrent, D.L. 2015: Phylogenetic relationships of Santalales with insights into the origins of holoparasitic Balanophoraceae. *Taxon* 64 (3): 491–506.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/dactylanthus-taylorii/>