

Pua ō te reinga/dactylanthus

Dactylanthus taylorii

ALSO CALLED WAE WAE ATUA, PUTIPUTI Ō TE PŌURI AND 'WOODROSE'.

Unique features

Dactylanthus is New Zealand's only completely parasitic flowering plant and the southern most member of its mainly tropical family. It occurs only in New Zealand.

Dactylanthus is completely dependent on its host plant for food and water. It is a root parasite with no green leaves, growing completely or partially under the ground. It lives on about 30 species of native trees and shrubs including mahoe, lemonwood, lancewood, kohuhu, wineberry, broadleaf, fivefinger, pate, karamu and putaputaweta.

Bat pollinated

Dactylanthus has a close relationship with the short tailed bat (another endangered New Zealand species). The bats are excellent pollinators of dactylanthus. They are attracted by the sweet smelling nectar produced by the flowers and pollinate the flowers while taking nectar. Rats and mice can also pollinate dactylanthus.

Distribution

In the past dactylanthus was found throughout the North Island and northern South Island. It is currently known from throughout the North Island. It is also present on Little Barrier Island.

Status

Listed as Chronically Threatened - Serious Decline, and ranked as a plant with a high priority for conservation action by the Department of Conservation.



Clockwise from left:
Dactylanthus plant,
male inflorescence, female
inflorescence.
(approx. actual size)
Photos: B. O'Brien,
A. Holzapfel, R. J. Talbot.

Populations

It is hard to locate dactylanthus, as it grows partially underground, making it difficult to estimate the number of plants in one area. There are likely to be only a few thousand plants left, as the rate of loss is high and the rate of reproduction low.

Reproduction

There are separate male and female plants. Seed can remain viable for at least seven years in the soil. Dactylanthus has been cultivated and took at least four years from sowing seed to flowering. The seed is not adapted for long distance dispersal.

At risk!

Possum and rat browse are the major threats to dactylanthus. They have been recorded on video seeking out and destroying both the flowers and flower buds. A single possum can prevent a whole population from reproducing. More recently, pigs have been found to be a more serious threat; uprooting clumps. Other threats include deer, goats, stock, habitat clearance and loss of pollinators. The species has also declined due to collectors destroying dactylanthus to obtain the 'woodrose'. This is the part of the host root to which dactylanthus is attached, and which becomes deformed as a result of this attachment.

Recovery of dactylanthus

A national recovery plan has been published by the Department of Conservation to coordinate conservation effort and ensure the survival of dactylanthus. Plants are caged to prevent browser damage and key pests are controlled at selected sites. New populations have been established through seed sowing. Ongoing research continues to shed light on the ecology of the species.

You can help

Please report any sightings of dactylanthus plants or the collection and sale of woodroses to your nearest Department of Conservation office.

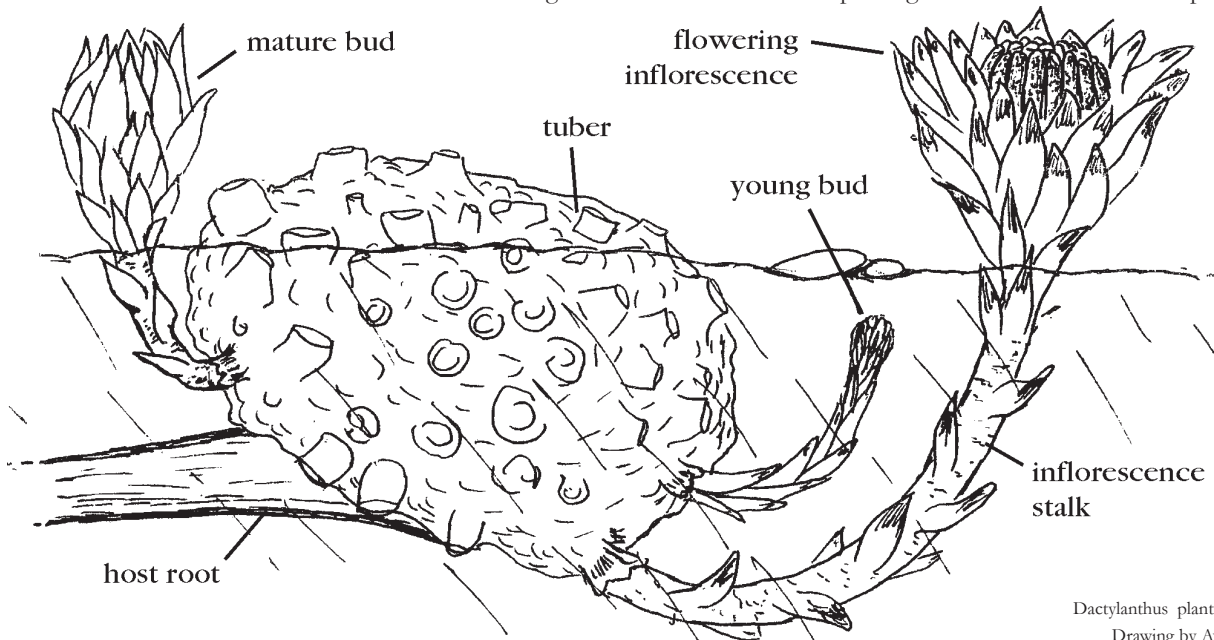
To find out more

- "In search of the woodrose" by C. Ecroyd (1993), *Forest and Bird* No. 267 (February).
- "Flower of Hades" by K. Warne and J. Woods (1990), *New Zealand Geographic* No. 6.
- "The ecology of *Dactylanthus taylorii* and threats to its survival" by C. Ecroyd (1996), *New Zealand Journal of Ecology* Vol. 20 (1).
- "*Dactylanthus taylorii* Recovery Plan 2004-14" by Department of Conservation (2005), *Threatened Species Recovery Plan Series* No. 56. Department of Conservation, Wellington.

See also: www.doc.govt.nz

www.nzpcn.org.nz

www.wikipedia.org



Dactylanthus plant (actual size)
Drawing by Avi Holzapfel