

Notothlaspi viretum

COMMON NAME

Red Hills penwiper

SYNONYMS

None - first described in 2019. Previously known by the tag name "Notothlaspi (a) (CHR 363071; Red Hills)"

FAMILY

Brassicaceae

AUTHORITY

Notothlaspi viretum Heenan

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Yes

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

CHROMOSOME NUMBER

$2n = 90-100$

CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, OL, St

BRIEF DESCRIPTION

Alpine herb forming compact green cushions on ultramafic rocks. Cushions comprised of numerous closely placed rosettes. Leaves narrowly linear to lanceolate (when bruised smelling of cress), bright green. Flowers white. Fruit a green silicle.

DISTRIBUTION

Endemic. New Zealand: South Island (Richmond Range—Red Hills).

HABITAT

Known from two sites only between 1540–1700 m a.s.l. where the species is confined to rocky outcrops, sparsely vegetated open stable to semi-stable scree, and on coarse sand and soil derived from ultramafic harzburgite rock.



Richmond Ranges. Photographer: Chris Ecroyd, Licence: CC BY-NC.



Richmond Ranges. Photographer: Chris Ecroyd, Licence: CC BY-NC.

DETAILED DESCRIPTION

Perennial herb, with short lateral stems, stems 1.0–1.7 mm diameter, usually forming compact cushions of few to numerous rosettes. **Leaves** 9.0–26.0 mm long, rosulate or spreading on stems; lamina 7.0–17.0 mm long, 0.7–2.4 mm wide, linear to linear-narrowly lanceolate, green, coriaceous, glabrous on abaxial and adaxial surfaces; margin usually entire, occasionally 1-pinnatifid; apex attenuate, tip obtuse with a prominent hydathode, base attenuate; petiole 2.0–10.0 mm long, often indistinct from lamina. **Inflorescence** axillary, flowers solitary; peduncle 7–10 mm long, 0.4–1.0 mm diameter, ascending, glabrous. **Sepals** 3.7–4.5 mm long, 1.2–1.5 mm wide, linear-lanceolate, green, glabrous, margin entire, apex subacute, base truncate. **Petals** 5.5–6.5 mm long, 1.6–2.4 mm wide, white, limb obovate to broadly elliptic, patent to reflexed; apex obtuse; base cuneate, tapering to a 2–3 mm long claw. **Stamens** 6; filaments linear, two 2.4–4.0 mm long, four 3.4–5.4 mm long; anthers 0.9–1.0 mm long, cream to pale yellow. **Ovary** 2.2–3.0 mm long, 1.2–1.8 mm wide, compressed, green, glabrous; ovules 5–8 per locule; style 2.0–2.1 mm long, terete; stigma capitate, 0.4–0.5 mm diameter. **Silicle** 4.3–5.2 mm long, 4.5–5.1 mm wide, green, glabrous, obcordate, angustiseptate; valves keeled, winged, wing c. 0.5 wide at base, up to 2.3 mm wide at apex, wing extended to form an apical notch to silicle; style persistent, up to 1.2 mm long. **Seeds** 0.8–1.1 mm long, 0.6–0.9 mm wide, orbicular-oblong, brown.

SIMILAR TAXA

An ultramafic endemic that is distinguished from *Notothlaspi australe* by the compact cushion growth habit with the plants producing numerous closely placed rosettes, and by the green, linear to linear-narrowly lanceolate leaves that are 7.0–17.0 mm long and 0.7–2.4 mm wide.

FLOWERING

December–January

FLOWER COLOURS

White

FRUITING

February–April

PROPAGATION TECHNIQUE

Not known from cultivation.

THREATS

As *Notothlaspi* (a) (CHR 363071; Red Hills), *N. viretum* was assessed as having a conservation status of Threatened – Nationally Critical by de Lange *et al.* (2018). This assessment considers that *Notothlaspi viretum* is confined to one location with an area of occupancy less than or equal to 1 hectare. Currently the sole known population is believed to be stable. Heenan (2019) suggest that hybridisation with *N. australe* may pose a long term threat as *N. viretum* is sympatric with *N. australe* and plants possibly representing hybrids were observed during a visit to the type locality in April 1997.

ETYMOLOGY

notothlaspi: Southern cress

viretum: Meaning 'grass green'

ATTRIBUTION

Fact sheet prepared by P.J. de Lange (28 March 2019). Description from Heenan (2019).

REFERENCES AND FURTHER READING

Heenan PB. 2019. A taxonomic revision of *Notothlaspi* (Brassicaceae), a specialist alpine genus from New Zealand. *Phytotaxa* 399(3): 248–260. <https://doi.org/10.11646/phytotaxa.399.3.7>.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/notothlaspi-viretum/>