

Cardamine lacustris

COMMON NAME

iti

SYNONYMS

Iti lacustris Garn.-Jones et P.N.Johnson

FAMILY

Brassicaceae

AUTHORITY

Cardamine lacustris (Garn.-Jones et P.N.Johnson) Heenan

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

NVS CODE

CARLCT

CHROMOSOME NUMBER

2n = 48

CURRENT CONSERVATION STATUS

2017 | At Risk – Naturally Uncommon | Qualifiers: EF, Sp

PREVIOUS CONSERVATION STATUSES

2012 | At Risk – Naturally Uncommon | Qualifiers: Sp

2009 | At Risk – Naturally Uncommon | Qualifiers: EF

2004 | Range Restricted

DISTRIBUTION

Endemic. New Zealand: South Island (Lakes Manapouri, Te Anau and also around small tarns in the eastern part of Fiordland).

HABITAT

A lake and tarn dwelling plant. It mostly grows on gently-shelving slopes usually within a sparse turf of other plants where a thin cover of silt or fine sand is lodged among firm and stable cobbles or gravels. In its main lake habitats these are sites which tend to be neither the most sheltered nor the most exposed available, but are subject to moderate wave action and the resultant periodic disturbance of sediments.

WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

Almost always is a hydrophyte, rarely in uplands (non-wetlands).



Cardamine lacustris. Photographer: Colin C. Ogle, Licence: CC BY-NC.



Ex. Cult Hamilton. Photographer: Gillian M. Crowcroft, Licence: All rights reserved.

DETAILED DESCRIPTION

Minute ephemeral or annual rosette herb. Stems on young plants very short, on older plants lateral, ascending at first, later prostrate, geniculate, rooting regularly, up to 50 mm long, reaching 0.8-2.0 mm diameter, glabrous or sometimes with sparse, fine, slightly recurved hairs. Leaves glabrous, or with sparse simple hairs on petiole, slightly glossy, dull green or tinged purplish-grey, in rosettes and clustered on stems. Early rosette leaves entire, linear-spathulate; later rosette and cauline leaves pinnatifid, 20-50 mm long; petiole 2-12 mm long, 0.5-1.0 mm wide; terminal lobe narrow-spathulate, 2-5 mm broad; lateral lobes narrowly oblong-spathulate, 4-10 mm long, sometimes single or in uneven numbers, but usually in 1-3 subopposite pairs. Peduncle glabrous, 1-2 mm long, reaching 2-5 mm long at fruiting. Sepals suberect, oblong, glabrous, green with narrow pale margins, 1.5-2.0 × 0.6-1.0 mm. Petals white, suberect, oblong- to obovate-spathulate, obtuse, 1.8-2.5 × 0.8-1.2 mm, weakly clawed; limb spreading. Stamens suberect; median stamens usually 2, rarely 4, 1.6-2.0 mm long; lateral stamens 1.0-1.5 mm long. Ovary ellipsoid, 1.0-1.6 mm long; stigma sessile, 0.4 mm diameter; locules each with 5-8 ovules. Silicle elliptic to oblong, 1.0-3.5 × 1.0-1.7 mm; valves pale straw coloured, thin, convex, glabrous, not veined or with 1 weak vein. Seeds c.5-8 in one row in each locule, pale to reddish brown, oblong, c.1 mm long.

SIMILAR TAXA

Cardamine lacustris is probably closely allied to *Cardamine mutabilis* (previously known by the tag name *Cardamine* 'tarn'), which inhabits the moist margins of tarns, kettles, and streams from Marlborough south through inland Canterbury to Otago and northern Southland. *Cardamine mutabilis* has a similar overall size and leaf shape to *C. lacustris* but differs by the long peduncles and a narrow, explosively dehiscent silique 10-15 times as long as its width.

FLOWERING

October - May (depends on water levels)

FLOWER COLOURS

White

FRUITING

November - July (depends on water levels)

LIFE CYCLE

Seeds are dispersed by ballistic projection, water and attachment (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown from fresh seed. Plants do best kept in a small pot partially submerged in water. Not that attractive for the garden but the leaves are edible and it could be used in cress sandwiches.

THREATS

Apparently not threatened but not that common either. Its presence is dictated by seasonal water levels. Some populations around Lake Manapuri and Te Anau may be threatened. Further research is required.

ETYMOLOGY

cardamine: From the Greek name kárdamon, referring to an Indian spice

lacustris: From the Latin lacus 'lake', meaning growing beside a lake

WHERE TO BUY

Not commercially available

ATTRIBUTION

Description from Garnock-Jones and Johnson (1987)

REFERENCES AND FURTHER READING

Garnock-Jones, P.J.; Johnson, P.N. 1987: *Iti lacustris* (Brassicaceae), a new genus and species from southern New Zealand. *New Zealand Journal of Botany* 25: 603-610. (the species was initially described as the segregate genus *Iti*).

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(4): 285-309.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/cardamine-lacustris/>