# Lepidium obtusatum

SYNONYMS None

FAMILY Brassicaceae

AUTHORITY Lepidium obtusatum Kirk

FLORA CATEGORY Vascular – Native

ENDEMIC TAXON Yes

ENDEMIC GENUS No

ENDEMIC FAMILY No

STRUCTURAL CLASS Herbs - Dicotyledons other than Composites

CURRENT CONSERVATION STATUS 2017 | Extinct

# **PREVIOUS CONSERVATION STATUSES**

2012 | Extinct 2009 | Extinct 2004 | Extinct

## DISTRIBUTION

Endemic. North Island, Waitakere Coastline (between Karekare and the Manuaku Heads), and Wellington (Seatoun to Fort Dorset). Not seen since 1917 (northern population) and 1950 (southern population on the Miramar peninsula in Wellington) and now presumed extinct. Not known in cultivation. First collected in the Wellington area prior to 1892 and near the Manukau Heads in 1870.

## HABITAT

The Manukau specimens are furnished with scant information. It would appear that these where collected from cliff faces. The Wellington plants grew mainly in fine beach gravel and stable talus slopes between Seatoun and Point Dorset. At this site it may also have grown on cliff faces.





Lepidium obtusatum - probably the last gathering ever made of this species (1950). Photographer: Ewen Cameron, Licence: CC BY-NC.



Seatoun, Wellington. Photographer: Peter J. de

### **DETAILED DESCRIPTION**

Glabrous decumbent to semi-erect herb forming circular patches up to 300 mm diam. Stems stout, fleshy, somewhat flexuous. Rosette and basal leaf petioles, broad, flat up to 80 mm long. Lamina 30-70 x 5-20 mm, fleshy, succulent, oblong-cuneate, obovate, coarsely crenate-serrate, dark green. Cauline leaves subsessile to sessile, lamina (5-)10-20(-50) x (3-) 5(-15) mm, fleshy-succulent, obovate, ovate to broadly ovate, crenate, rarely toothed, dark green. Inflorescence a terminal raceme (20-)3(-50) mm long, these numerous. Flowers 3-4 mm diam.; pedicels 3-5 mm, erecto-patent sometimes decurved; sepals broadly ovate-oblong, c.1.5. mm long; petals white, obovate < or = to sepals. Stamens 4(-6). Silicle  $4.5-5.5 \times 4-4.5 \text{ mm}$ , broadly ovate, shallowly notched at apex, slightly winged; style very short; stigma = notch. Seeds broadly ovoid to triangular, orange brown,  $2 \times 2 \text{ mm}$ .

#### **SIMILAR TAXA**

Traditionally allied to the Lepidium banksii Kirk, from which it is easily distinguished by the decumbent to suberect growth habit, obovate, oblong-crenate leaves, very long petiolate rosette leaves, and glabrous pedicels. Recently obtained (2005) nrDNA ITS/ETS sequences suggest that although nested within the L. oleraceum group of Lepidia it was not closely allied to either L. banksii or L. oleraceum s.s.

FLOWERING December - July

FLOWER COLOURS White

**FRUITING** December - July

## LIFE CYCLE

Mucilaginous seeds are dispersed by attachment and possibly wind and water (Thorsen et al., 2009).

#### **PROPAGATION TECHNIQUE**

Not Applicable. However, seed obtained from a 1938/39 (exact year of collection not clear) and sown in 1993 took up water and began to germinate but then died. Possibly this experiment should be repeated but as an extinct species, seed is obviously limited.

#### **THREATS**

The Wellington population seems to have been eliminated through a combination of habitat destruction and over collection by people. It is not clear why this species disappeared from the Waitakere Coastline.

#### ETYMOLOGY

**lepidium**: Scale-shaped (pods) **obtusatum**: Obtuse, or blunt

#### WHERE TO BUY

Extinct plant so unavailable.

#### **NOTES ON ITS STATUS**

Only one account of this species appearance when alive is known, and that suggests it was a very fleshy, succulent herb with dark green leaves. Specimens from the Manukau Harbour differ from Wellington plants by their much more coarsely toothed rosette leaves and semi-erect to erect rather than creeping habitat. The Wellington population appears to have alway been of rather restricted occurrence and its loss seems to have been due to a combination of excessive plant collection by botanists, weed invasion and destruction of the main population as a consequence of gravel extraction. There have been numerous surveys for this species in the Wellington area but the Manukau (Waitakere Heads) have hardly been surveyed. Indications are that it was already very uncommon in that area when it was discovered.

# ATTRIBUTION

Fact Sheet by P.J. de Lange: Description adapted from de Lange et al. (2013).

# **REFERENCES AND FURTHER READING**

de Lange, P.J. 2005. A final word from Lepidium obtusatum? Wellington Botanical Society Bulletin, 49: 7-8. de Lange, P.J.; Heenan, P.B.; Houliston, G.; Rolfe, J.R.; Mitchell, A.D. 2013: New *Lepidium* (Brassicaceae) from New Zealand. Phytokeys 24:1-147pp., doi: 10.3897/phytokeys.24.4375.

Norten, D.A. and P.J. de Lange. 1999. Coastal cress (Nau) recovery plan. Threatened Species Recovery Plan 26. Department of Conservation

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

## NZPCN FACT SHEET CITATION

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

# **MORE INFORMATION**

https://www.nzpcn.org.nz/flora/species/lepidium-obtusatum/