

Libertia cranwelliae

COMMON NAMES

Cranwell's iris, Cranwell's mikoikoi

BIOSTATUS

Native

CATEGORY

Vascular

STRUCTURAL CLASS

Herbs - Monocots

DETAILED DESCRIPTION

Plants consisting of leafy fans crowded or emerging at intervals from far-spreading horizontal stolons; stolons c. 3–5 mm diameter, bright yellow. Leaves 150–900 mm × 5–11 mm, the two surfaces similar; inclined to turn yellow where exposed to full sun; leaf bases yellow; nerves many, median ones crowded to form a midrib; margins not scabrid, leaf in transverse section convex lens-shaped, two rows of vascular bundles present, marginal vascular bundles present, sclerenchyma present on inside of leaf sheath. Peduncles long (2/3 the length of inflorescence) but inflorescences short (2/3 the length of the leaves), flowers and fruits not reaching top of leaves. Panicle narrow, sparsely branched; lower bracts long (180–250 mm), lanceolate and orange-green, upper bracts smaller and membranous brown, occurring singly; 1–3 flowers per branch. Pedicels stout, 5–16 mm long, glabrous. Flower bud sometimes yellowish or brown, usually similar size to ovary sometimes smaller, flowers 20–35 mm diameter; tepals all white internally, widely patent; outer tepals usually > ½ the length of the inner, narrower, elliptical, flattened, with an apiculus; inner tepals oval-elliptical, shortly unguiculate, not usually covering outer tepals, cleft at tip. Staminal filaments very shortly connate; anthers c. 3 mm long, yellow. Ovary yellowish green, ribbed cupiform, greater than or equal to perianth bud; style branches not winged, pointing outwards. Capsule large, up to 20 mm long, barrel-shaped, ripening from green to yellow-orange to black or grey-black, ± indehiscent, apex sometimes splitting slightly. Seeds dispersed when capsule disintegrates. Seeds c.1.5 ×1.5 mm, globose to angular, orange-brown in colour.

SIMILAR TAXA

Libertia cranwelliae is most similar to *L. ixioides* from which it is distinguished by the wide spreading, elongate, yellow stolons, leafy fans spreading some distance from parent plant, and leaves with inconspicuous venation. According to Blanchon et al. (2002) it is reproductively isolated from both *L. ixioides* or *L. grandiflora*. Plants are further distinguished from all other New Zealand *Libertia* by their 5S rDNA, and cpDNA (trnL-trnF) sequence.

DISTRIBUTION

Endemic. New Zealand: North Island (East Cape from near Hicks Bay south to the Kopuapounamu valley)

HABITAT

Coastal forest on cliff faces, in seepages, on stream and river banks.

CURRENT CONSERVATION STATUS

2023 | Threatened – Nationally Critical | Qualifiers: DPT, OL

THREATS

Recently (2006) rediscovered in the wild by Graeme Atkins at one site near East Cape where there are c.30 plants growing in coastal forest. This site is threatened by weeds, goats, cattle and red deer. *Libertia cranwelliae* has not been rediscovered at its former locations at the Awatere River and Kopuapounamu Valley.



Adaxial leaf surface, in cultivation, Wellington. Photographer: Colin C. Ogle, Date taken: 24/10/2015, Licence: CC BY-NC.



Leaf fans off rhizomes, in cultivation, Wellington. Photographer: Colin C. Ogle, Date taken: 24/10/2015, Licence: CC BY-NC.

DETAILED TAXONOMY

FAMILY

Iridaceae

AUTHORITY

Libertia cranwelliae Blanchon, B.G.Murray et Braggins

SYNONYMS

None (first described in 2002)

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

September - November

FRUITING

January - December

LIFE CYCLE AND DISPERSAL

Seeds are possibly dispersed by wind (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easily grown by division of whole plants. Fresh seed germinates readily.

OTHER INFORMATION

ETYMOLOGY

libertia: Named after Marie-Anne Libert, (1782-1865) born & died in Malmedy, province of Liège, Belgium; botanist and mycologist

CHROMOSOME NUMBER

$2n = 228$

PREVIOUS CONSERVATION STATUSES

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

2012 | Threatened – Nationally Critical | Qualifiers: DP

2009 | Threatened – Nationally Critical | Qualifiers: DP

2004 | Data Deficient

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

Blanchon, D.J.; Murray, B.G.; Braggins, J.E. 2002: A taxonomic revision of *Libertia* (Iridaceae) in New Zealand. *New Zealand Journal of Botany* 40: 437–456.

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

ATTRIBUTION

Description modified from: Blanchon et al. (2002)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/libertia-cranwelliae/>

PDF DATE

31 October 2024