Libocedrus plumosa

COMMON NAME
Kawaka, NZ cedar

SYNONYMS
Thuja doniana Hook., Libocedrus doniana (Hook.) Endl.

FAMILY
Cupressaceae

AUTHORITY
Libocedrus plumosa (D.Don) Sarg.

FLORA CATEGORY
Vascular – Native

ENDEMIC TAXON
Yes

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Trees & Shrubs - Gymnosperms

NVS CODE
LIBPLU

CHROMOSOME NUMBER
2n = 22

CURRENT CONSERVATION STATUS
2018 | Not Threatened

PREVIOUS CONSERVATION STATUSES
2009 | At Risk – Naturally Uncommon
2004 | Sparse

DISTRIBUTION
Endemic. North and South Islands. In the North present from Te Paki (Radar Bush) south to about the southern Kawhia Harbour (in the west) and near Gisborne (in the East), thence disjunct to north-west Nelson, where it grows locally around the Golden Bay area from about Puponga south to the Anatori River.

HABITAT
Coastal to lowland mixed broadleaf/hardwood forest. Often found in association with kauri (Agathis australis (D.Don.) Lindl.). Often on ridge lines, spurs, or forming apparently even-aged cohorts in sites of former major disturbance, such as in or around stabilised slips, slumps, or areas of major wind throw damage. This species tends to colonise more fertile soils and soils overlying high fertility (base-rich) substrates.
FEATURES
Evergreen, monoecious tree up to 35 m tall, 2-3 m d.b.h. Bark thin, scaly, light-brown to greyish-brown, peeling readily in long irregular, inrolled strips. Branches spreading or ascending, branchlets numerous, spreading, arranged in dense sprays in tiers above each other, forming a pyramidal crown in young trees, becoming conical, rounded or irregular in older specimens. Foliage in flattened sprays except when cone-bearing, ultimate branches subopposite to alternate, 15-35 x 2-6 mm, leafy, flattened, long persistent. Leaves decussate, on lateral branchlets shortly decurrent, imbricate, dimorphic, rhombic 1-2 x 1 mm, apiculate to acute, appressed, partially covered at base by 2-6 x 1.5-2 mm, divergent, bilaterally flattened, slightly curved laterals with entire margins and free apices; leaves on older trees smaller and monomorphic. Male cones terminal, solitary, subglobose to ovoid, 3-5 mm, yellowish-green, maturing light brown. Female cones terminal subtended by weakly dimorphic leaves; comprising 2 decussate pairs of acute 4-6 mm long, spreading bracts subtended by 3-4 pairs of similar, gradually shorter leaves, the upper pair developing within one growing season to become thin, woody, and forming a cone 12-18 mm long. Seeds 2-4, ovoid, flattened, with an acute apex 3-5 mm long, brown, with a whitish hilum and 2 opposite, thin membranous wings of very unequal shape and size, the smaller a narrow strip less than 1 mm wide, the larger irregular oval-oblong, 6-8 x 3-4.5 mm, yellowish-brown.

SIMILAR TAXA
Libocedrus bidwillii is somewhat similar but within the range of L. plumosa it is confined to montane cloud forests (> 600 m.a.s.l.). It differs by the more or less quadrangular ultimate branchlets, nearly monomorphic leaves, and by the bracts subtending the cone bracts being less than or about 1/3 the size of the actual cone scales.

FLOWERING
July - September

FLOWER COLOURS
No flowers

FRUITING
July - June

PROPAGATION TECHNIQUE
Easily grown from fresh seed which germinates within 4-8 months of sowing. An attractive conifer that makes and excellent specimen tree. It does best in a free draining, moderately fertile and moist soil, though once established it can tolerate considerable drought. It is moderately cold hardy but dislikes severe frosts. This species does not like much competition from other broad-leaf trees and to do best it should be planted as solitary specimens or as a monospecific plantings (in a stand).

THREATS
A widespread and at times locally common, though generally naturally sparse species. Although it was logged when suitable trees were found, its general scarcity meant that logging has had little effect on its overall distribution and abundance. This species may even have benefited from past logging because it is at its most abundant in places that were once heavily logged, and/or burned. In fact field evidence suggests that Libocedrus plumosa needs regular disturbance to maintain itself.

ETYMOLOGY
libocedrus: Frankincense cedar
plumosa: Feathery

ATTRIBUTION
REFERENCES AND FURTHER READING


NZPCN FACT SHEET CITATION

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

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