Halocarpus bidwillii

COMMON NAME
bog pine

SYNONYMS
Dacrydium bidwillii Kirk

FAMILY
Podocarpaceae

AUTHORITY
Halocarpus bidwillii (Kirk) Quinn

FLORA CATEGORY
Vascular – Native

ENDEMIC TAXON
Yes

ENDEMIC GENUS
Yes

ENDEMIC FAMILY
No

STRUCTURAL CLASS
Trees & Shrubs - Gymnosperms

NVS CODE
HALBID

CHROMOSOME NUMBER
2n = 18

CURRENT CONSERVATION STATUS
2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES
2009 | Not Threatened
2004 | Not Threatened

BRIEF DESCRIPTION
Much-branched, shrubs or small trees. Foliage distinctly dimorphic (less obvious in adults but usually evident in shaded foliage and on basal branches). Branchlets initially 4-angled, slender (thread-like), leaves bronze-green, yellow-green (often red-tinged). Fruits comprising a dark dark brown, black-brown to dark purple-brown seed sitting within a fleshy, waxy white cup.

DISTRIBUTION
Endemic. New Zealand: North, South and Stewart Islands from the Central Volcanic Plateau and Kaingaroa Plain south but in the North Island patchy. Records of Halocarpus bidwillii from Te Moehau (Colville, Coromandel Peninsula) are referable to H. biformis.

HABITAT
Lowland to subalpine (strictly montane to alpine in the North Island). A shrub or small tree of wetland margins, bogs, poorly draining heathland, frost-flats, river beds and also dry, stony ground and tussock grassland. Halocarpus bidwillii can be locally dominant.
FEATURES
Dioecious, spreading or erect, much-branched shrub or small tree up to 4.8 m tall. Trunk 0.3-0.4 m d.b.h, usually multiple, rarely solitary, sometimes spreading. Bark firm, flaking in irregular shards, exposed surface grey, usually covered in lichens, undersides red to red-brown. Branches spreading, bases sometimes layering on contact with soil (in extreme examples give rise to a ring of clonal shrubs surrounding ‘parent’); branchlets initially tetragonal, becoming ± terete with age, 1.2-2.0 mm diameter. Foliage dimorphic; juveniles linear, coriaceous, rigid, apetiolate, spreading; lamina 5.0-10.0 × 1.0-1.5 mm, bronze green to yellow-green, sometimes tinged red, obtuse to subacute, midvein distinct; adults leaves closely imbricate, coriaceous; lamina 1-2 mm long, obtuse to subacute. Male strobili solitary, terminal and sessile, 2.8-4.6 mm long; apiculus obtuse. Female cones sessile, terminal, each surrounded by leaf-like, elongated bracts (1-5 of which are fertile), and terminating in a central sterile appendage. Carpidia solitary or paired, subterminal, larger than associated bracts. Epimatium adnate to base of carpidium; dorsiventrally compressed and striated, initially green, maturing dark-brown to black with the region around the micropyle swelling to form a fleshy, waxy-white (very rarely yellowish), persistent aril collar at the proximal end of the carpidium; the aril cupular to v-shaped under seed. Seed glabrous, smooth, 3.0-4.5 mm long (including aril), dark brown, black-brown to dark purple-brown, glossy, ovate-oblong, compressed.

SIMILAR TAXA
Easily recognised when fruiting by the waxy white (very rarely yellowish) arils subtending the seed. Vegetatively it is distinguished from the other Halocarpus by the smaller much-branched shrub to small tree growth habit, weakly keeled leaves (prominently so in H. biformis), and more slender, initially tetragonal, branchlets. The seeds of Halocarpus bidwillii are distinguished from H. biformis (with which it most often confused) by the ventral and dorsal surfaces usually prominently longitudinally grooved (sometimes only on the ventral surface) (see Webb & Simpson 2001).

FLOWERING
October - December

FLOWER COLOURS
No flowers

FRUITING
February - June

LIFE CYCLE
Arrilate seeds are dispersed by frugivory (Thorsen et al., 2009).

PROPAGATION TECHNIQUE
Easily grown from seed. Can be struck from semi-hardwood and hardwood cuttings - but often fickle. best grown in an open site in a well drained but moist soil. Dislikes drought and humidity.

THREATS
Not Threatened - though uncommon and in decline within some parts of its North Island, eastern and southern South Island range.

ETYMOLOGY
halocarpus: From the Greek hals ‘sea’, ‘salty’ and karpos ‘fruit’
bidwillii: Named after the botanist - John Carne Bidwill (born 1815 and died 16 March 1853)

ATTRIBUTION
REFERENCES AND FURTHER READING

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

MORE INFORMATION