

Special Plants of Wāwāhi Waka/Pigeon Island, Lake Whakatipu



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Special Plants of Wāwāhi Waka/Pigeon Island Neill Simpson

Wāwāhi Waka/Pigeon Island is a 285 ha island owned by Queenstowns Lakes District Council. It is ecologically significant as it contains lowland podocarp hardwood forest almost locally extinct in the Whakatipu Basin due to human wrought changes to the landscape.

Another important feature of these Islands is that they are free of all predators (mice, rats, stoats, ferrets, opossums, goats, deer, pigs and rabbits). This makes them available for the possible future introduction of threatened species of birds, insects and lizards. Bird life is prolific now and karearea have nested here on the ground for at least two years recently.

Noteworthy plants found here include:

- Four species of podocarps found on the Islands (kahikatea, mataī, miro, thin-barked tōtara).
- Kahikatea and miro not found elsewhere in the Whakatipu area and matai is uncommon.
- Other tree species not found in the Whakatipu area are pōkākā (Elaeocarpus hookerianus) and tūrepo/small-leaved milk tree (Streblus heterophyllus).
- Kamahi (Weinmannia racemosa) reaches its eastern limit here although it occurs along the eastern coastal areas of the South Island.
- Other rare and endangered species of plants include 4 species of mistletoes (Korthalsella clavata, Korthalsella lindsayii, Alepis flavida, Ileostylis micranthus)
- 10 species of Coprosma grow here.
- Fierce lancewood (Pseudopanax ferox) is listed as At Risk Naturally Uncommon in the Threatened Plant list. The population was much reduced here after the wild fires in 1996 and 2003.
- rōhutu (Lophomrytus obcordata) is listed as Threatened Nationally Critical. There is a good population on Wāwāhi/Pigeon Island. A good population also of poataniwha (Melicope simplex) that is rare elsewhere in the district.
- There is a good stand of old, mature tawhairaunui/red beech forest on Wāwāhi Waka/Pigeon Island that could be a roosting site for short tailed bats. Some trees could be 300-400 years old. The only equivalent places locally are at Bobs Cove and Routeburn/Dart but neither areas contain kahikatea, miro, pokaka or turepo.

Lophomyrtus obcordata

COMMON NAME

rōhutu

SYNONYMS

Eugenia obcordata Raoul, Myrtus obcordata (Raoul) Hook.f.

FAMILY

Myrtaceae

AUTHORITY

Lophomyrtus obcordata (Raoul) Burret

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Yes

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

LOPOBC

CHROMOSOME NUMBER

2n = 22

CURRENT CONSERVATION STATUS

2018 | Threatened – Nationally Critical

PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Bushy shrub with a corded smooth trunk under flakes of bark bearing small thick heart-shaped leaves. Leaves 5-10mm long, with a distinct notch at tip. Flowers white, single, 6mm wide, with many filaments from white glossy centre, on a stalk to 20mm long. Fruit red to black.

DISTRIBUTION

Endemic. North and South Islands. Patchy and often absent over large parts of the country. More common in the eastern North and South island though locally prominent in some parts of western Northland and Auckland.

HABITAT

Coastal to montane in forest - though mostly found in coastal and lowland forested habitats. *Lophomyrtus obcordata* is often rather local over large parts of its North Island range though it seems to be reasonably common on the Pouto, Kaipara and Awhitu Peninsulas where it grows on stable sand dunes in a forest dominated by *Kunzea amathicola* (known as rawiritoa to northern Maori (de Lange 2014)). *Lophomyrtus obcordata* is also occasionally dominant in alluvial forest remnants of the eastern South Island. In these places it is often parasitised by the dwarf mistletoe *Korthalsella lindsayi*.



In cultivation. Photographer: Jeremy Rolfe



In cultivation. Photographer: Jeremy Rolfe

FEATURES

Shrub up to c.6 m tall. Trunk slender, up to 02 m diameter. Bark greyish pink, chartaceous, flaking in large, irregular shards, underbark pale cream. Branches numerous, erect, compactly branched to spreading. Branchlets intially 4-angled maturing subterete, rather brittle, minutely pubescent. Leaves opposite (sometimes in fascicles), coriaceous, puberulent when young (hairs patent), becoming glabrous with age, glandular punctate, oil glands colourless, leaf lamina and petioles shortly decurrent with branchlet; petiole 0.7-1.0 mm long, brittle; leaf lamina 5-12 × 5-10 mm, obcordate, cuneately narrowed to base, adaxially dark green to grey-green (sometimes tinged red), paler beneath (sometimes tinged pink). Flowers 4-merous, 6-8 mm diameter, borne in axillary, solitary monads on slender, 10-14(-20) mm long, pubescent pedicels. Hypanthium subturbinate, not extending beyond ovary summit, glandular punctate, oild glands colourless (rarely pink tinged), calyx lobes 4, 1.0-1.8 mm long, persistent, spreading, pubescent, oblong, acute. Petals 6-8 × 5-8 mm, suborbicular, white, margins entire to slightly irregular, oil glands colourless. Stamens 60-80(-100 or more), free, in 4 weakly defined whorls, filaments 6-8 mm long, anthers cream, dorsifixed, latrorse. Ovary inferior, 2-3-locular, ovules numerous, in a single row on each linear placenta. Style 6-8 mm long, slender, white, stigma capitate, scarcely dilated. Fruit a broadly ovate, bright to dark red (rarely black or violet) 6-7 mm long berry. Seeds numerous, reniform, 2.0-4.3 mm diameter, testa pale brown, glossy ± smooth, very hard.

SIMILAR TAXA

Lophomyrtus bullata differs from L. obcordata by having much larger, distinctly bullate ("bubbly") suborbicular rather than non-bullate obcordate leaves. Neomyrtus pedunculata could be confused with Lophomyrtus obcordata but it has obovate-oblong to obovate rather than obcordate leaves, and 5-merous flowers. Often in places where the ranges of Lophomyrtus bullata and L. obcordata overlap the hybrid L. ×ralphii can be found (and sometimes only this hybrid is present the parents presumably having died out for that area). Like Lophomyrtus bullata the hybrid has suborbicular leaves, only smaller (up to 16 × 12 mm), and less distinctly or weakly bullate. It is fully fertile and often forms introgressive hybrid swarms. Lophomyrtus ×ralphii is popular in cultivation.

FLOWERING

November - March

FLOWER COLOURS

Cream, White

FRUITING

January - May

PROPAGATION TECHNIQUE

Easily grown from fresh seed. Can also be grown from semi-hardwood and hardwood cuttings. Lophomyrtus obcordata is an attractive and remarkably hardy shrub that does well in a wide range of situations. of the two species in the genus, L. obcordata is more commonly grown and sold by nuseries though even then it is still surpassed in nurseries by the diversity of freakish forms and variegated mutants derived from the hybrid L. $\times ralphii$ (L. $bullata \times L$. obcordata). Myrtle rust $(Austropuccinia\ psidii)$ however now poses a serious threat to this species both in the wild and in cultivation.

THREATS

Seriously threatened by the arrival of myrtle rust (*Austropuccinia psidii*) in New Zealand (de Lange et al. 2018). Learn more at <u>myrtlerust.org.nz</u>

ETYMOLOGY

lophomyrtus: From the Greek lophos (crest) and myrtus (myrtle)

obcordata: Heart-shaped and notched at the tip

ATTRIBUTION

Fact sheet including description prepared for NZPCN by P.J. de Lange 9 February 2011. Seed description modified from Webb & Simpson (2001).

REFERENCES AND FURTHER READING

de Lange, P.J. 2014: A revision of the New Zealand *Kunzea ericoides* (Myrtaceae) complex. *PhytoKeys 40*: 1-185. de Lange P.J., Rolfe J.R., Barkla J.W., Courtney S.P., Champion, P.D., Perrie, L.R., Beadel S.M., Ford K.A., Breitwieser I., Schönberger I., Hindmarsh-Walls R., Heenan P.B., Ladley K. 2018. Conservation status of New Zealand indigenous vascular plants. 2017. *New Zealand Threat Classification Series*, 22: 1–82.

Webb, C.J.; Simpson, M.J.A. 2001: Seeds of New Zealand Gymnosperms and Dicotyledons. Christchurch, Manuka Press.

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): Lophomyrtus obcordata Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

https://www.nzpcn.org.nz/flora/species/lophomyrtus-obcordata/ (Date website was queried)

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/lophomyrtus-obcordata/

Prumnopitys taxifolia

COMMON NAME

mataī, black pine

SYNONYMS

Dacrydium taxifolium Banks et Solander ex D.Don in Lamb., Dacrydium mai A.Cunn., D. mayi Houtte. ex Gord., Podocarpus matai Lamb. Ex Hook.f., Prumnopitys spicata Kent in Veitch, Stachycarpus spicatus (Mirbel) Masters, Podocarpus taxifolia

FAMILY

Podocarpaceae

AUTHORITY

Prumnopitys taxifolia (D.Don) de Laub.

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

Nο

STRUCTURAL CLASS

Trees & Shrubs - Gymnosperms

NVS CODE

PRUTAX

CHROMOSOME NUMBER

2n = 38

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North, South and Stewart Islands. Uncommon on Stewart Island.

HABITAT

Lowland forest. Often in drier climates, where it can dominate alluvial soils which are waterlogged/flooded in winter and dry in summer. Seems to prefer base-rich substrates and soils.

FEATURES

Dioecious conifer 25(-30) m tall. Trunk 1-2 m diam. Bark dark brown (almost black), falling in thick circular flakes, leaving a distinctive hammer-like scar patterning on trunk. Wood dark brown to rich yellow-brown, very hard. Juveniles filiramulate, with distinctive, dark brown, slender, flexuous, divarciating branchlets. Leaves brown, pale yellow, or dirty white, 5-10 x 1-2 mm, linear-lanceolate, apex acute; adults dark green, somewhat glaucous above, glaucous below, 10-15 x 1-2 mm, subdistichous, linear, straight to subfalcate, obtuse, often apiculate. Male cones (strobili) in spikes, 30-50 mm long, with 10-30 cones per spike. Ovules on short axillary branches, 3-10 per 40 mm long spike. Fruit a fleshy, oily, aromatic, terpene-tasting, purple-black drupe with a glaucous bloom. Stone more or less circular (5.5-)6-8.5 mm diam., surface dull to semi-glossy, pale orange-yellow to light orange-yellow.



Photo of tree bark. Photographer: DoC



Whirinaki, May. Photographer: John Smith-Dodsworth

SIMILAR TAXA

Easily recognised by the distinctive filiramulate divaricating juvenile to subadult growth form, charcoal grey hammered bark, dark green to glaucous adult foliage, spicate male cones, and by the ovoid, plum-coloured drupes.

FLOWERING

(October-) November - February

FLOWER COLOURS

No flowers

FRUITING

Fruits take 12-18 months to mature. Ripe fruits may be found throughout the year.

PROPAGATION TECHNIQUE

Easily grown from fresh seed. Seed may take up to 2 years to germinate Can be grown from hard-wood cuttings but rather slow to strike.

THREATS

Not Threatened, although as a forest-type it has been greatly reduced through widespread logging. Very few intact examples of matai-dominated forest remain in the country.

ETYMOLOGY

prumnopitys: From the Greek prymnos 'hindmost' or 'stern' and pitys 'pine', referring to the location of the resin duct

WHERE TO BUY

Commonly cultivated and frequently sold by most commercial nurseries and outlets - usually from plants raised from seed, however some nurseries stock cutting grown plants raised from adult foliage, thus bypassing the filiramulate, divaricating juvenile growth-form. A very popular garden tree.

CULTURAL USE

Gum from the trunk is the basis for "Matai Beer", a deep, rich brew still made in some parts of the country. The dark, hard, durable timber is much sought after for floors and furniture.

ATTRIBUTION

Prepared by P.J. de Lange for NZPCN, 3 February 2006. Description based on Allan (1961)

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Government Printer, Wellington

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/prumnopitys-taxifolia/

Elaeocarpus hookerianus

COMMON NAME

pōkākā

SYNONYMS

None

FAMILY

Elaeocarpaceae

AUTHORITY

Elaeocarpus hookerianus Raoul

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Nο

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

ELAHOO

CHROMOSOME NUMBER

2n = 30

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Small tree with distinct small narrow glossy olive-green and brown wavy leaves to 5cm long on zig zagging interlacing branches on juvenile plants that then develop much larger adult leaves 3-11cm long by 1-3cm wide on straight erect twigs. Flowers white, lacy, drooping, in small sprays. Fruit dark purple, oval.

DISTRIBUTION

Endemic. North, South and Stewart Islands - uncommon from Auckland north.

HABITAT

Common tree of lowland to montane forests.

SIMILAR TAXA

The juvenile and sub adult form of this species is well marked, and could only be confused with the unrelated Pittosporum turneri. It can be distinguished from that by the branches being circular rather than hexagonal, and by the more diverse array of leaf shapes, and usually by the greater preponderance of linear-lanceolate, deeply lobed or serrated leaves. In its adult stage it is somewhat similar to hinau but has much smaller, uniformly darker coloured leaves, and smaller flowers and fruits.



Pinehaven, Upper Hutt. Photographer: Jeremy Rolfe



Mataroa, Taihape, April. Photographer: John Smith-Dodsworth

FLOWERING

October - January

FLOWER COLOURS

White

FRUITING

November - March (- June)

LIFE CYCLE

Fleshy drupes are dispersed by frugivory (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easy from fresh fruit - though can be slow to germinate. Moderately easy in most soils, light and moisture regimes. Although it does best in a deep, moist, well mulched soil., it is rather hardy and once established is remarkably drought tolerant. Occasionally hybridises with hinau.

ETYMOLOGY

elaeocarpus: Olive-seed

hookerianus: Named after Sir Joseph Dalton Hooker (born 1817) - a world famous botanist who travelled on the Antarctic expedition of 1839 under the command of Sir James Ross and wrote "Handbook of New Zealand Flora" published in 1864-67 describing many specimens sent to Kew by collectors. He died in 1911 and has a memorial stone at Westminster Abbey London.

WHERE TO BUY

As with hinau, pokaka is a beautifully tree which should be more widely grown. The interlacing, divaricating juvenile to sub adult growth form is quite popular with modern landscape gardeners, as such pokaka is more often sold by commercial nurseries than hinau.

REFERENCES AND FURTHER READING

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

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/elaeocarpus-hookerianus/

Podocarpus laetus

COMMON NAME

mountain tōtara, Hall's tōtara, thin-barked tōtara, tōtara-kiri-kōtukutuku

SYNONYMS

Podocarpus hallii Kirk; Podocarpus cunninghamii Colenso

FAMILY

Podocarpaceae

AUTHORITY

Podocarpus laetus Hooibr. ex Endl.

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

INO

ENDEMIC FAMILY

Nο

STRUCTURAL CLASS

Trees & Shrubs - Gymnosperms

NVS CODE

PODCUN

CHROMOSOME NUMBER

2n = 34

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North, South and Stewart Islands.

HABITAT

Lowland, montane to lower subalpine forest (but notably more common in montane forest). Often found on impoverished soils, immature (skeletal) soils, or sites that are naturally stressed by drought or extreme temperature fluctuations.

FEATURES

Robust dioecious conifer up to 20 m tall. Trunk stout, 1-1.5 m diam., clad in papery, thin, freely flaking reddish-grey bark. Trunk without branches at base, branches slender, erect, spreading or somewhat drooping. Leaf bud significantly broader than the diam., of the branchlet, surrounded by caducous, papery, ovate bracts. Leaves yellow-green, green, or brownish-green, erect, leathery; juvenile 25-50 x 4-5 mm, adults 20-30 x 3-4 mm., narrow-linear to linear-lanceolate, acute to acuminate, apex very pungent, mid-vein distinct. Male cones (strobili) axillary, 10-25 mm, solitary or up to 5 on a common peduncle. Female branchlets axillary, ovules solitary or paired. Receptacle of 2-4 scales, irregularly elliptic-oblong to obovate-oblong, maturing as a red, swollen, succulent, sweet tasting "fruit" this surmounted by a 1(-2) elliptic, elliptic-oblong or ovate-oblong, (5-)6.5-8.5 mm long, grey nut brown or dark brown (green when fresh) seed.



Photo of Halls totara bark. Photographer: DoC



Halls totara, male cones. Photographer: DoC

SIMILAR TAXA

Distinguished from Podocarpus totara var. totara by the leaf bud which is wider than the diameter of the branchlet (resembles a meat ball on a stick), and by the broadly ovate bud bracts. The bark is generally papery - hence "thin barked totara", the leaves (especially juveniles and subadults) are longer and broader with a very sharp, pungent leaf tip. Hybridises with P. totara var. totara and hybrids can only reliably be distinguished by bud scale and bud diameter characters. See also Gardner (1990) in references below.

FLOWERING

(August-) October (-December)

FLOWER COLOURS

No flowers

FRUITING

Fruits take a year or so to ripen, and may be found throughout the year, usually peaking at about the same time that cones are produced. They are most frequently seen between April and May

PROPAGATION TECHNIQUE

Easily grown from fresh seed and hard-wood cuttings.

ETYMOLOGY

podocarpus: Foot or stalk fruit **laetus**: From the Latin laetus 'bright'

WHERE TO BUY

Uncommon in cultivation. Not often seen in gardens though it is commercially available.

TAXONOMIC NOTES

Molloy (2015) has outlined the complex taxonomic history of Hall's totara noting that there are three valid names that could be used for this species, *P. hallii* Kirk, *P. cunninghamii* Colenso and *P. laetus* Hooibr. ex Endl. Molloy (2015) concludes that *Podocarpus laetus* is the earliest legitimate and validly published name, and in the absence of any final ruling on the matter that name is now used here. Previously it had been recommended that *P. cunninghamii* should be used (see Molloy 1985; de Lange & Rolfe 2010).

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (8 January 2005). Description adapted from Kirk 1889 and Allan 1961).

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Wellington, Government Printer.

Connor, H.E.; Edgar, E. 1987: Name changes and Nomina Nova IV. New Zealand Journal of Botany 25:

de Lange, P.J.; Rolfe, J.R. 2010: New Zealand Indigenous Vascular Plant Checklist. Wellington, New Zealand Plant Conservation Network. 164pp.

Gardner, R. 1990. Totara and Halls totara. Auckland Botanical Society Journal, 45: 27-28.

Kirk, T. 1889: The Forest Flora of New Zealand. Wellington, Government Printer.

Molloy, B.P.J. 1985: The continuing saga of native conifer nomenclature. *DSIR Botany Division Newsletter 102*: 26-27.

Molloy, B.P.J. 2015: The correct name for the New Zealand endemic conifer Hall's totara

(Araucariales: Podocarpaceae). Phytotaxa 220: 101-116.

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/podocarpus-laetus/

Pectinopitys ferruginea

COMMON NAME

miro, brown pine

SYNONYMS

Podocarpus ferruginea D.Don, Stachypitys ferruginea (D.Don) Bobrov et Melikyan nom. illegit., Stachycarpus ferruginea (D.Don) Tieghem, Prumnopitys ferruginea (D.Don) Laubenf.

FAMILY

Podocarpaceae

AUTHORITY

Pectinopitys ferruginea (G.Benn. ex D.Don in Lamb.) C.N.Page

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

Nο

STRUCTURAL CLASS

Trees & Shrubs - Gymnosperms

NVS CODE

PRUFER

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

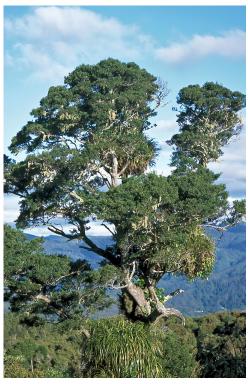
Endemic. North, South and Stewart Islands.

HABITAT

Common tree of lowland to montane forest.

FEATURES

Stout tree up to 25 m tall. Trunk 1-1.5 m diam., in adults clear of branches for 2/3 of length. Bark thick, grey. Falling in thick, sinuous flakes. Leaves feathery, dark green, green to bronze-green, distichous, erect, narrow-linear, acute, falcate to subfalcate, acute to subacute, mid vein distinct, margins recurved, juveniles up to 30 mm long, those of adults 15-25 x 2-3 mm. Male cones (strobili) solitary, axillary, 5-15 mm long. Ovules solitary (rarely paired), on short branchlets 10 or less mm. long. Fruit a broadly oblong to sub–spherical red, pink-red fleshy drupe up to 20 mm long - fleshy, oily, smelling and tasting strongly of terpenes. Stone elliptic to broadly elliptic 11-17 mm long, dark brown to black-brown.



Eastern Hutt hills. Photographer: Jeremy Rolfe



Stokes Valley, Lower Hutt. Photographer: Jeremy Rolfe

SIMILAR TAXA

The bright green to bronze-green, feathery foliage, and pink-red, to red plum-like drupes are quite unlike any other New Zealand conifer. However young miro plants might be confused with yew (Taxus baccatus), but can be distinguished by their lack of petioles.

FLOWERING

June - August - October

FLOWER COLOURS

No flowers

FRUITING

Fruits take 12-18 months to mature. Ripe fruits are mainly found from November - April

PROPAGATION TECHNIQUE

Easily grown from fresh seed. Seed may take up to 2 years to germinate. Can be grown from hard-wood cuttings but rather slow to strike.

THREATS

Not Threatened, although as a forest-type it has been greatly reduced through widespread logging. Very few intact examples of miro-dominated forest remain in the country.

ETYMOLOGY

ferruginea: Rust coloured

CULTURAL USE/IMPORTANCE

The large, oily, red fruits are an important part of the diet of the New Zealand Wood Pigeon/Kereru/Kukupa (Hemiphaga novaezelandiae).

TAXONOMIC NOTES

Stachypitys proposed by Bobrov & Melikyan (2000) is regarded as illegitimate because it is a parahomonym of Stachyopitys a fossil conifer genus. More recently Page (2019) created the genus Pectinopitys to accommodate New Zealand miro, allied species in Eastern Australia (one), New Caledonia (one), and three South American species. It has long been recognised that miro was an 'ill fit' in Prumnopitys, which was why Bobrov & Melikayn (2000) made an attempt to move it out of that genus, so this more recent segregation should come as no surprise.

ATTRIBUTION

Prepared by P.J. de Lange for NZPCN, 3 February 2006. Description based on Allan (1961)

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Government Printer, Wellington

Bobrov, A.V.F.Ch.; Melikyan, A.P. 2000: Morphology of female reproductive structures and an attempt of the construction of phyogenetic system of orders Podocarpales, Cephalotaxales and Taxales. *Botanicheskii Zhurnal (Moscow & Lenningrad)* 85(7):50–68.

Page, C.N. 2019: New and maintained genera in the taxonomic alliance of *Prumnopitys* s.I (Podocarpaceae), and circumscription of a new genus: *Pectinopitys*. *New Zealand Journal of Botany* 57(1): 137-153.

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): Pectinopitys ferruginea Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

https://www.nzpcn.org.nz/flora/species/pectinopitys-ferruginea/ (Date website was queried)

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/pectinopitys-ferruginea/

Dacrycarpus dacrydioides

COMMON NAME

kahikatea, white pine

SYNONYMS

Dacrydium excelsum D.Don in Lamb., Dacrydium ferrugineum Houttee ex Gord., Dacrydium thuioides Banks et Solander ex Carr., Nageia excelsa Kuntze, Podocarpus dacrydioides Richard, Podocarpus thujoides R.Br. In Bennett, Podocarpus excelsus (D.Don) Druce; Podocarpus excelsus (D.Don.) Druce

FAMILY

Podocarpaceae

AUTHORITY

Dacrycarpus dacrydioides (A.Rich.) de Laub.

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Gymnosperms

NVS CODE

DACDAC

CHROMOSOME NUMBER

2n = 20

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. North, South and Stewart Islands

HABITAT

Lowland forest, formerly dominant on frequently flooded, and/or poorly drained alluvial soils. Occasionally extends into lower montane forest. Once the dominant tree of a distinct swamp forest type all but extinct in the North Island - the best examples remain on the West Coast of the South Island.



Kahikatea. Photographer: DoC



Upper Hutt. Photographer: Jeremy Rolfe

FEATURES

Stout, dioecious, cohort-forming conifer, 50 (-65) m. tall. Trunk 1(-2) m diam., often fluted and buttressed. Bark grey to dark-grey, falling in thick, sinuous flakes. Wood white, odourless. Trunks bare for 3/4 of length, subadults with a distinctive columnar growth habit, branches arising from 1/3 to 1/2 of trunk length. Branchlets slender, drooping. Leaves of juveniles subdistichous, subpatent, narrow-linear, subfalcate, acuminate, decurrent, 3-7 x 0.5-1mm red, wine-red, dark-green to green.; of subadults less than or equal to 4 mm., dark green or red; those of adults 1-2 mm., imbricating, appressed, keel, subtrigonous, lanceolate-subulate to acuminate with broader base, brown-green or glaucous. Male cones terminal, oblong, 10 mm. Pollen pale yellow. Ovule, terminal, solitary glaucescent. Receptacle fleshy, oblong, compressed, warty, 2.5-6.5 mm., yellow to orange-red. Seed broadly obovate to circular (4-)4.5-6 mm diam., purple-black, thickly covered in glaucous bloom.

SIMILAR TAXA

A distinctive tree of usually swampy alluvial terraces. The columnar growth form of subadults, buttressed and fluted trunk bases, scale-like leaves, and terminal fruits bearing the distinctive circular seeds serve to immediately distinguish this species from all other indigenous conifers.

FLOWERING

October - January

FLOWER COLOURS

No flowers

FRUITING

February - April

PROPAGATION TECHNIQUE

Easily grown from fresh seed. Can be grown from hard-wood cuttings but rather slow to strike.

THREATS

Not Threatened, although as a forest-type it has been greatly reduced through widespread logging. Very few intact examples of kahikatea-dominated forest remain in the North Island.

ETYMOLOGY

dacrycarpus: Tear shaped fruit dacrydioides: Like a dacrydium

WHERE TO BUY

Commonly cultivated and frequently sold by most commercial nurseries and outlets. A very popular garden tree. A form with distinctly glaucous foliage is occasionally on offer.

CULTURAL USE/IMPORTANCE

Kahikatea is New Zealands tallest indigenous tree. The white odourless timber was used extensively to make butter boxes, for much of the late 1800s and early 1900s. It was this practice which all but eliminated kahikatea-dominated swamp forest from the North Island and northern South Island.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 12 January 2004: Description adapted from Allan (1961).

REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I. Wellington, Government Printer.

Gardner, R. 2001. Notes towards an excursion Flora. Rimu and kahikatea (Podocarpaceae). Auckland Botanical Society Journal, 56: 74-75

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): Dacrycarpus dacrydioides Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

https://www.nzpcn.org.nz/flora/species/dacrycarpus-dacrydioides/ (Date website was queried)

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/dacrycarpus-dacrydioides/

Streblus heterophyllus

COMMON NAME

small-leaved milk tree, tūrepo

SYNONYMS

Paratrophis microphylla (Raoul) Cockayne, Epicarpus microphyllus Raoul, Epicarpurus microphyllus Raoul, Taxotrophis microphylla (Raoul) F. Muell.; Trophis? opaca Banks et Sol. ex Hook; Paratrophis heterophylla Blume



Moraceae

AUTHORITY

Streblus heterophyllus (Blume) Corner

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

Nο

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

STRHET

CHROMOSOME NUMBER

2n = 28

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

A thin-twigged bushy shrub bearing small 5-10mm long leaves that have large gaps in the edge growing into a tree with small oval slightly toothed leaves. Adult leaves 8-25mm long, sometimes "fiddle-shaped", vein network easily visible underneath. Flowers small in short spike. Fruit red, 4-5mm wide.

FLOWER COLOURS

Red/Pink, White

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/streblus-heterophyllus/



Eastern Hutt hills. Photographer: Jeremy Rolfe



Turepo. Photographer: Wayne Bennett

Pterophylla racemosa

COMMON NAME

kāmahi, tawheo, tawhero, tawherowhero

SYNONYMS

Weinmannia racemosa L.f.

FAMILY

Cunoniaceae

AUTHORITY

Pterophylla racemosa (L.f.) Pillon et H.C.Hopkins

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Nο

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

WEIRAC

CHROMOSOME NUMBER

2n = 30

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Tree to small shrub, young stems bearing deciduous stipules, leaves variable but as adults most simple, with deeply toothed margins, flowers white or pink, clustered in spike-like racemes

DISTRIBUTION

Endemic. North, South, Stewart Island. The exact northern limits of Pterophylla racemosa are uncertain but probably lie somewhere along the Manukau Harbour and Hunua Ranges across the Kamai Range. North of here the distinction between P. racemosa and P. sylvicola is often confused. This needs further study.



Stokes Valley, Lower Hutt. Photographer: Jeremy Rolfe



Stokes Valley, Lower Hutt. Photographer: Jeremy Rolfe

HABITAT

Coastal to subalpine. A widespread and common tree of disturbed habitats in coastal and lowland to montane forest, often becoming locally dominant in higher altitude montane forest in the higher ranges of the North Island and western South Island.

FEATURES

Tree up to 28 m tall often forming a narrowly domed canopy (but this will vary according to local conditions). Trunk up to 1.2 m diameter. Branches numerous, erect to spreading, Foliage heterophyllous. with distinct seedling, juvenile and adult leaves (reversion shoots common). Stipules caducous, 3-6 mm long, lanceolate, finely pubescent, yellow-green to pinkish. Seedling and juvenile leaves membranous to subcoriaceous, 10-60 × 10-30 mm; lamina simple to 3-lobed or 3-foliolate, ovate-elliptic to elliptic or lanceolate, apices subacute to acute, margins serrate to incised-serrate; adult leaves coriaceous, on petioles up to 20 cmm long, lamina 30-100 × 20-40 mm lamina simple, elliptic, ovate-elliptic to broad-ovate, apices obtuse to subacute, margins rather coarsely, bluntly serrate. Inflorescences in racemose; racemes 60-1140 mm long, rachises and pedicels finely, pilose-pubescent; pedicels 2-4 mm long, clustered, ascending to spreading. Sepals 1.0-1.5 mm. long, ovate, persistent; petals 4(-5), 2-3 mm long, ovate-oblong, white, cream or pale pink; stamens 8-10, exserted, filaments up 10 mm long, white or pinkish white, anthers 0.2-0.3 mm diameter, cream; nectaries 8, red; ovary, narrowly ovoid 0.8 mm diameter, covered in appressed hairs, carpels 2, free almost to base. Styles 3-4 mm long, pale pink, persistent; stigma 0.2-0.4 mm, pink or pale pink, punctate. Fruit a pubescent, broadly cylindrical capsule 4.0-5.8 x 2.7-3.1 mm, initially greyish drying honey-brown or dark brown. Seeds numerous, 1.0-1.5 mm long, narrowly elliptic to elliptic-oblong, orange-brown, apices bearing dense hair tufts, otherwise glabrous.

SIMILAR TAXA

Fact Sheet Under Development

FLOWERING

July - January

FLOWER COLOURS

White

FRUITING

October - May

PROPAGATION TECHNIQUE

Easily grown from fresh seed. Can also be grown from semi-hardwood cuttings. This is an attractive tree tolerant of a wide range of conditions and soil types though it does best in high light, and in free-draining soil. The flowers are very attractive to a range of insects and birds

ETYMOLOGY

racemosa: Raceme bearing

ATTRIBUTION

Fact sheet prepared for NZPCN by P.J. de Lange (13 October 2012). Description prepared by P.J. de Lange.

REFERENCES AND FURTHER READING

McKenzie, R. 1960. The distributional overlap of *Weinmannia sylvicola* and *Weinmannia racemosa*. Auckland Botanical Society Journal, 17: 7-8

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): Pterophylla racemosa Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

https://www.nzpcn.org.nz/flora/species/pterophylla-racemosa/ (Date website was queried)

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/pterophylla-racemosa/

Korthalsella clavata

SYNONYMS

Viscum clavatum Kirk, Korthalsella kindsayi var. clavata (Kirk) Danser

FAMILY

Viscaceae

AUTHORITY

Korthalsella clavata (Kirk) Cheeseman

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Nο

ENDEMIC FAMILY

Nο

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

KORCLA

CHROMOSOME NUMBER

2n = 28

CURRENT CONSERVATION STATUS

2018 | At Risk - Declining

PREVIOUS CONSERVATION STATUSES

2012 | At Risk - Naturally Uncommon | Qualifiers: Sp

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Flattened beaded succulent very small (to 8cm) shrub growing on twigs of another plant. Leaves (flattened stems) 5-10mm long by 1.5-3.5mm wide, widest towards tip. Flowers tiny, fruit small, green, on short spike.

DISTRIBUTION

Endemic. North and South Islands from near Whakamaru south to Cape Turakirae and the Wairarapa. In the South Island throughout, though notably more common in the east.

HABITAT

Coastal to subalpine. Usually found parasitising shrubs within grey scrub communities, also found on shrubs and trees within montane alluvial forest. No clear host preference is as yet evident, though regional patterns may exist (this needs study).

FLOWERING

October - March

FLOWER COLOURS

Green

FRUITING

October - June



At Lake Rotoiti, Nelson, December. Photographer: John Smith-Dodsworth



L. Rotoiti, Nelson. December. Photographer: John Smith-Dodsworth

LIFE CYCLE

Fleshy berries are dispersed by ballistic projection, attachment and possibly frugivory (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild

ETYMOLOGY

korthalsella: After Korthals, botanist

clavata: From the Latin clavatus 'club-shaped'

WHERE TO BUY

Not commercially available.

REFERENCES AND FURTHER READING

Rebergen, A., Sawyer, J.W.D. 2005. Korthalsella clavata in the lower North Island. Wellington Botanical Society Bulletin, 49: 11-15

Nickrent, D.L.; Malécot, V.; Vidal-Russell, R.; Der, J.P. 2010: A revised classification of Santalales. Taxon 59: 538-558.

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

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/korthalsella-clavata/

Korthalsella lindsayi

COMMON NAME

leafless mistletoe, dwarf mistletoe

SYNONYMS

Viscum lindsayi D.Oliver, Heterixia lindsayi Tiegh nom. illeg., Korthalsella lindsayi (Oliv.) Endl. var. lindsayi

FAMILY

Viscaceae

AUTHORITY

Korthalsella lindsayi (Oliv.) Engl.

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

KORLIN

CHROMOSOME NUMBER

2n = 28

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Dense mass of flattened beaded succulent stems to 10cm long growing on twigs of another plant. Leaves (flattened stems) 5-12mm long by 3-9mm wide, widest towards upper middle. Flowers tiny, fruit small, green, on short spike.

DISTRIBUTION

Endemic. North and South Islands. In the North Island generally uncommon from Pureora south to about the Hawkes Bay and Wairarapa, there after abundant. In the South Island throughout, though apparently more common in the east.

HABITAT

Coastal to subalpine but more usually found in lowland and coastal situations. Usually associated with lowland alluvial and coastal forest. Parasitising a diverse range of shrubs, trees and vines with not clear host preference evident, though regional patterns may exist (this needs further study).

FLOWERING

October - March



Wairoa. Photographer: Bec Stanley



Woodside gorge, November. Photographer: John Smith-Dodsworth

FRUITING

October - June

LIFE CYCLE

Fleshy berries are dispersed by ballistic projection, attachment and possibly frugivory (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild

ETYMOLOGY

korthalsella: After Korthals, botanist

WHERE TO BUY

Not commercially available.

REFERENCES AND FURTHER READING

Nickrent, D.L.; Malécot, V.; Vidal-Russell, R.; Der, J.P. 2010: A revised classification of Santalales. Taxon 59: 538-558.

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

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/korthalsella-lindsayi/

Pseudopanax ferox

COMMON NAME

fierce lancewood

SYNONYMS

Panax ferox Kirk

FAMILY

Araliaceae

AUTHORITY

Pseudopanax ferox Kirk

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Νo

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

PSEFER

CHROMOSOME NUMBER

2n = 48

CURRENT CONSERVATION STATUS

2012 | At Risk - Naturally Uncommon | Qualifiers: PD, Sp

PREVIOUS CONSERVATION STATUSES

2009 | At Risk - Naturally Uncommon | Qualifiers: CD, RF 2004 | Sparse

BRIEF DESCRIPTION

Small tree with a striking juvenile form consisting of down pointing roundish long narrow very tough leaves that have irregular blunt bumps along the edge which grows into a bushy small tree bearing long narrow leathery leaves that have a few teeth on the margin towards the tip and produces 8-9mm wide purple fruit.

DISTRIBUTION

Endemic. North and South Islands. In the North rather patchy, known from Ahipara, Woodhill Forest (South Kaipara), the Moawhango and southern Rimutaka Range. In the S. Island more widespread but easterly from the Marlborough Sounds to Southland.



Auckland University ex unknown provenance. Photographer: Bec Stanley



Auckland University ex unknown provenance. Photographer: Bec Stanley

HABITAT

Coastal to subalpine (10-800 m a.s.l.) on consolidated sand dunes (dune forest), in grey scrub overlying pumice, on recent alluvial (coarse gravels), limestone outcrops, boulder fall, cliff faces, talus slopes and scarps. Also found as a sparse component of seasonally drought-prone but otherwise cold and wet alluvial forests. This species prefers drier habitats and conditions than P. crassifolius (Sol. ex A.Cunn.) C.Koch.

FEATURES

Gynodioecious small tree up to 8 m tall. Trunk slender, longitudinally deeply grooved and ridged, bark fawn, mottled grey-white, often finely encrusted with lichens. Seedling leaves patent, 15-40 x 3-6 mm, dark or light chocolate brown to almost black, linear-lanceolate, margins deeply lobed with hooked ends; sapling and unbranched juvenile leaves strongly deflexed, 100-500 x 6-15 mm, light brown mottled with fawn and white near lobes or dark chocolate brown, mottled with fawn and white near lobes, coriaceous, very thick and rigid, margins set with closely-spaced to more or less distant, broadly and broad-based, somewhat raised, rounded, prominently and sharply hooked lobes; midrib raised, 2 mm wide, leaf apex terminating in 2-6 crowded, hooked lobes; leaves at branching stage similar but shorter, sub- to ascending, sometimes more deeply and sharply lobed before passing into adult foliage. Adult leaves 50-150 x 10-20 mm, dark or light chocolate brown, oblong to linear-obovate or broadly lanceolate, narrowing to a stout petiole 10-20 mm long; apex obtuse or mucronate-apiculate, retuse, bluntly serrate to entire, veins evident above. Umbels terminal, compound, staminate and perfect umbels with 5-12 rays, 30-50 mm long; flowers more or less racemosely distributed, trending to umbellules in perfect flowers; pistillate with rays 10-30 mm long, umbellules 2-5-flowered. Stamens 4-5, ovary 5-loculed, 5-ovuled; style branches 5, fused, sometimes free at tips. Fruit 8-9 mm diameter, brown or purple-brown, ovoid, fleshy.

SIMILAR TAXA

Pseudopanax crassifolius is similar but the sapling and subadult leaves are green to dark green, usually with smaller, narrow-based, straight teeth, and the adult has much broader, greener, elliptic-cuneate, lanceolate to linear-obovate, acute or obtuse, entire to sinuate or rarely coarsely serrated leaves. P. crassifolius is a much larger tree reaching up to 20 m in good conditions.

FLOWERING

November - April

FRUITING

December - June

PROPAGATION TECHNIQUE

Easily grown from fresh seed and can be struck from semi-hardwood cuttings - though necessarily of adult foliage. A very tough plant that favours highly fertile but dry soils in full sun to dappled light. It can tolerate poor fertility soils as well and is drought tolerant. Juvenile foliage is exceptional and so it is well known from cultivation.

THREATS

Probably warrants a higher threat listing. P. ferox is biologically sparse but it is also threatened by possum, deer and goat browse, because juvenile plants command high prices in the nursery trade accessible populations have and continue to be plundered for seedlings and ripe fruit. Hybridisation with P. lessonii (DC.) K.Koch has been reported from several northern populations, if substantiated, the long-term effect hybridism may have on the viability of P. ferox at these sites has yet to be evaluated. The most secure populations seem to be the one in the southern North Island and a few island populations in the Marlborough Sounds and those in the more remote parts of the southeastern South Island.

ETYMOLOGY

pseudopanax: False cure

ferox: From the Latin ferox 'fierce', usually referring to very spiny plants

ATTRIBUTION

Fact sheet prepared by P.J. de Lange for NZPCN (1 June 2013)

NZPCN FACT SHEET CITATION

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

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/pseudopanax-ferox/

Melicope simplex

COMMON NAME

poataniwha

FAMILY

Rutaceae

AUTHORITY

Melicope simplex A.Cunn.

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Nο

ENDEMIC FAMILY

Nο

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

MELSIM

CHROMOSOME NUMBER

2n = 36

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened 2004 | Not Threatened

BRIEF DESCRIPTION

Bushy widely branched shrub bearing small rounded rough-edged leaves with a joint where they attach to a flattened stalk. Leaf blade 5-10mm, rounded, thick, margin rough, young leaves with three leaflets. Flowers cream, star-shaped. Fruit dry, in 2-4 parts.

FLOWER COLOURS

Green, White

ETYMOLOGY

melicope: Honey cut

simplex: Simple, not compound

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/melicope-simplex/



Melicope simplex. Photographer: Wayne



Melicope simplex. Photographer: Wayne Bennett

Fuscospora fusca

COMMON NAME

red beech

SYNONYMS

Fagus fusca Hook. f., Nothofagus fusca (Hook.f.) Oerst.

FAMILY

Nothofagaceae

AUTHORITY

Fuscospora fusca (Hook.f.) Heenan et Smissen

FLORA CATEGORY

Vascular - Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

Nο

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

NVS CODE

NOTFUS

CHROMOSOME NUMBER

2n = 26

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

BRIEF DESCRIPTION

Tall forest tree bearing masses of small sharply-toothed leaves that also have a small hairy pit at the junction of the veins. Trunk flaky. Leaves 2-4cm long. Flowers and fruit small and usually inconspicuous but change colour of tree when in flower.

DISTRIBUTION

North and South Islands - 37° southwards, except Mount Egmont.

HABITAT

Lowland to montane forest.



Cobb Valley. Photographer: John Smith-Dodsworth



Kaitoke Ridge Track, Upper Hutt. Photographer: Jeremy Rolfe

FEATURES

Tree up to 30 metres tall; trunk up to 2 metres or more in diameter, often strongly buttressed. Leaves rather thin, coriaceous, $20\text{-}40 \times 15\text{-}25$ mm., on petioles up to 4 mm. long; lamina glabrous except on veins below, broad-ovate to ovate-oblong, coarsely, rather deeply sharply serrate with 6-8 pairs of teeth; venation distinct; fringed domatia 1-2 in basal vein axils. Staminate inflorescences 1-8 per branchlet; peduncles glabrous, up to 4 mm. long, bearing 1-3 or rarely 5 subsessile flowers. Perianth 5 mm. long, campanulate; shallowly obtusely 5 lobed, sparsely to rather densely pubescent. Stamens 8-11; anthers 3 mm. long, red, yellow, or straw coloured. Pistillate inflorescences 1-5 per branchlet, sessile, ovoid to globose, 3 mm. long, glabrate, usually 3-flowered. Lateral flowers trimerous, terminal dimerous; stigmas ligulate, distinctly bilobed. Cupule pubescent, 4-partite; segments attenuate, up to 10 mm. long; glands between segments and bracts. Nuts 7 mm. long, triquetrous or flat; wings broad at base, attenuate.

FLOWERING

September – December

FLOWER COLOURS

Red/Pink, Yellow

FRUITING

November - March

ETYMOLOGY

fusca: Brown tinged with grey or black

ATTRIBUTION

Description adapted by M. Ward from Allan (1961).

REFERENCES AND FURTHER READING

Allan, H. H. 1961 Flora of New Zealand. Volume I. Wellington, N. Z. pg. 398.

Anonymous. 1957. Construction of key for the genus Nothofagus. Auckland Botanical Society Journal, 14: 2-3 Greenwood, R.M. 1951. The Red Beech. Wellington Botanical Society Bulletin, 25: 6-9.

Heenan, P.B.; Smissen, R.D. 2013: Revised circumscription of *Nothofagus* and recognition of the segregate genera *Fuscospora*, *Lophozonia*, and *Trisyngyne* (Nothofagaceae). *Phytotaxa 146*: 1-31. http://dx.doi.org/10.11646/phytotaxa.146.1.1

MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/fuscospora-fusca/