

Freycinetia banksii

COMMON NAME

kiekie

SYNONYMS

Freycinetia baueriana subsp. *banksii* (A.Cunn.) B.C.Stone

FAMILY

Pandanaceae

AUTHORITY

Freycinetia banksii A.Cunn.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Lianes - Monocots

NVS CODE

FREBAN

CHROMOSOME NUMBER

$2n = 62$

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Endemic. New Zealand: North and South Islands to about the Clarence river in the east and Fiordland in the west. More common in the wetter parts of the South Island.

HABITAT

Coastal to montane forest, usually in wet sites although once established it can tolerate very dry conditions. Often coastal in karst country where it may form huge tangles that make access extremely difficult.



A kiekie flower. Photographer: DoC



Kiekie fruit. Photographer: DoC

FEATURES

Densely branched, somewhat brittle, woody, climber producing numerous, weakly ascending to ascending dense cane-like stems from which roots freely emerge. Stems up to 40 mm diameter, deeply marked with scars of old leaves, usually branched in upper third, often somewhat interlacing such that the stems form dense tangles. Leaves densely tufted toward stem ends, spirally arranged; lamina 1.5-2 x 0.15-0.25 m; sheathing bases pale, otherwise dark green to green, usually yellow spotted, blemished or striped, strongly pleated, long attenuate, triangular in transverse section, margins and midrib distinctly though finely scabrid to spinulose. Inflorescences of 1-8 spadices, each simple and solitary in axil of 2-4 foliaceous bracts at stem apex; bracts thick, succulent towards base, white to purplish, edible (sweet tasting). Peduncle 10-40 mm, whitish, stout, glabrous; spadix 70-80 x 15-20 mm, pale yellow, cream, off white, cylindrical to slightly flattened, the axis hidden by tightly packed flowers such that individual flowers not easily determined. Male of several stamens each with a long filament, ovate anther and producing copious, confluent pollen, ovary rudimentary. Female with 6-12 purplish staminodes at base of flattened, vertically elongated ovary, 2-4 x 1 mm x 2 mm tall, long sides grooved between staminodes; stigmas 6-12, sessile, arranged around a long groove; locule narrow, placentae forming ridged around it. Fruits to 150 x 30 mm, brownish when ripe, sweet tasting (like caramel), borne on stiff woody peduncles. Individual fruits (phalanges) 8 x 2 x 10 mm, compressed laterally, thin-walled proximally, broadest 1/3 from base and almost woody towards apex. Seed 1 mm long, narrow, on a long, slender funicle.

SIMILAR TAXA

None. Stone (1973) made a combination at subspecies rank for *F. banksii* within the Norfolk Island endemic *F. baueriana*. Subsequent research, especially by Huyhn (1993), and added to and summarised by de Lange et al. (2005) shows quite clearly why both these taxa should be maintained at species rank. They differ significantly with respect to their phyllotaxis, leaf width, margin (entire in *F. baueriana*, scabrid in *F. banksii*), vein tessellation (abundant in *F. baueriana*, absent in *F. banksii*) colour (glaucous in *F. baueriana*, dark green with yellow flecks/spots in *F. banksii*), degree of pleating (absent in *F. baueriana*, present in *F. banksii*), and the floral bract colour (white to purplish in *F. banksii*, salmon pink to orange in *F. baueriana*) - as well as the over all growth habit.

FLOWERING

August - November

FLOWER COLOURS

Green, White

FRUITING

January - May

LIFE CYCLE

Viscid phalanges are dispersed by frugivory and attachment (Thorsen et al., 2009).

PROPAGATION TECHNIQUE

Easy from fresh seed and rooted pieces but tends to be quite slow to establish. An attractive vine with beautiful edible flowers and fruits. It deserves to be more widely grown.

THREATS

Not Threatened - however, over large parts of its range it is experiencing reproductive failure due to rats which eat the flowers and fruits. Possums also eat the flowers and fruits but it has been shown that they help disperse the seeds. Freycinetia is one of the few New Zealand species with flowers said to be suited to bat pollination

ETYMOLOGY

freycinetia: Named by Charles Gaudichaud-Beaupré (1789-1854) after Admiral Louis de Freycinet (1779-1842) who was a 19th century French navigator and explorer. Freycinet was the commander of the circumglobal expedition on which Charles Gaudichaud-Beaupré (1789-1854) was the botanist and was the first to collect and describe the genus Freycinetia.

banksii: Named after Sir Joseph Banks, 1st Baronet, GCB, PRS (24 February 1743 - 19 June 1820) was an English naturalist, botanist and patron of the natural sciences.

CULTURAL USE/IMPORTANCE

The succulent bracts, flowers and sweet tasting fruits were eaten by Maori. The leaves were also used to weave coarse mats and vessels for temporarily holding food. Is a highly prized fibre for Maori weaving, used in fine whāriki (mats) and kete (baskets). It was also used for its inner fibres for binding toki (adzes).

ATTRIBUTION

Fact Sheet Prepared for NZPCN by: P.J. de Lange 4 April 2004. Description based on Moore & Edgar (1970).

REFERENCES AND FURTHER READING

de Lange, P.J.; Gardner, R.O.; Sykes, W.R.; Crowcroft, G.M.; Cameron, E. K. Stalker, F.; Christian, M.L.; Braggins, J.E. 2005: Vascular flora of Norfolk Island: some additions and taxonomic notes. *New Zealand Journal of Botany* 43: 563-596.

Huyhn K-L 1993. Some new distinctive features between *Freycinetia banksii* Cunn. (Pandanaceae) of New Zealand and *F. baueriana* Endl. of Norfolk Is. *Candollea* 48: 501-510.

Moore, L.B.; Edgar, E. 1970: *Flora of New Zealand*. Vol. II, Wellington, Government Printer.

Stone, B.C. 1973: Materials for a Monograph of *Freycinetia* Gaudich. XIV. On the Relation between *F. banksii* A. Cunn. of New Zealand and *F. baueriana* Endl. of Norfolk Island, with Notes on the Structure of the Seeds. *New Zealand Journal of Botany* 11: 241-246.

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

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MORE INFORMATION

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