



ēra i tipu ki Waiwiri mai rānō



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Alectryon excelsus subsp. *excelsus*

Common Name(s):

New Zealand ash, titoki

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North and South Islands from Te Pahi to Banks Peninsula

Habitat:

A widespread coastal to lowland forest tree. Often favouring well drained, fertile, alluvial soils along river banks and associated terraces. It is also a major component of coastal forests, particularly those developed within exposed situations or on basaltic or andesite volcanics. It is a common offshore island tree within the Hauraki Gulf. The large fruits are bird dispersed and so titoki trees often occur as a sparse components of most lowland forest types, throughout the North Island.

Features*:

Tree between 10m and 20m tall. Branches stout, erect, all parts invested with fine, velutinous, ferruginous hairs. Bark brown. Adult leaves dark green, matt when mature, imparipinnate, alternate 80-260 mm long. Leaflets 3-7 pairs; lamina 45-105 x 19-40 mm, subcoriaceous, lanceolate, oblong or narrowly-ovate, apex, subacute often acuminate, rarely obtuse; base cuneate, truncate to oblique, upper leaf surface matt; lamina margin entire or deeply serrated 1-4 times near apex. Inflorescences axillary 90-120 mm long, sparingly branched panicles. Flowers bisexual or staminate. Petals absent. Stamens 5-8 in bisexual and 6-10 in staminate flowers, crimson. Stigma ovoid, in staminate flowers ovary tholiform, style absent, in perfect flowers broadly urceolate, style 1.5-2 mm, erect. Fruits sessile, 1-2-lobed, 14-20 x 9-14 mm, pubescent, globular, carina 3-5 mm long on one side. Seed 7-10 x 4-8 mm, subglobose, black, lustrous, sarcotesta fleshy, scarlet, papillose.

Flowering:

October - December (-June)

Fruiting:

November - August

Threats:

Not Threatened

*Attribution:

Fact Sheet prepared by P.J. de Lange (1 August 2005). Description by P.J. de Lange based in part on de Lange et al. (1999).

References and further reading:

Cameron, E.K. 1998. Frost resistance in titoki *Alectryon*. *Auckland Botanical Society Journal* 53: 15.

de Lange, P.J.; Cameron, E.K.; Murray, B.G. 1999: *Alectryon excelsus* subsp. *grandis* (Sapindaceae): a new combination for an uncommon small tree endemic to the Three Kings Islands, New Zealand. *New Zealand Journal of Botany* 37: 7-16.

Duguid, F. 1961. Flowering in titoki. *Wellington Botanical Society Bulletin* 32: 16

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1486



Caption: Algies Bay, Auckland
Photographer: John Sawyer



Caption: Carter Scenic Reserve
Photographer: John Sawyer

Astelia banksii

Common Name(s):

Coastal astelia, shore kowharawhara

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Confined to the North Island where it occurs in coastal situations south to about the Kawhia and Tauranga Harbours

Threats:

Not Threatened

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* 2009 Vol. 11 No. 4 pp. 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1527



Caption: *Astelia banksii*

Photographer: Wayne Bennett



Caption: Flower of *Astelia banksii*

Photographer: Wayne Bennett

Beilschmiedia tawa

Common Name(s):

Tawa

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Common throughout the North Island. In the South Island common from Cape Farewell east through the Marlborough Sounds. Extending south of their only in the east where it almost reaches Kaikoura (the southern limit is just north of the main town).

Habitat:

Major canopy dominant in the lowland and lower montane forests of the North Island and northern South island. May form pure stands but usually occurs in close association with podocarps such as rimu (*Dacrydium cupressinum*).

Features*:

Evergreen tree up to 35 m tall. Trunk straight, 1.2-2 m diam., with buttressed base. Bark smooth, dark brown. Branches erect to spreading, slender to moderately robust. Young branchlets, leaves and inflorescences finely pubescent, hairs simple, pale golden. Foliage opposite to sub-opposite, simple, somewhat leathery when mature. Petioles (6-)8(-12) mm. Leaves (30-)40-80(-95) x (8-)11-16(-40) mm, narrowly to broadly lanceolate sometimes elliptic, yellow-green to green, glabrous when mature, undersides glaucous. margins entire, and undulate, apex acute to acuminate. Inflorescences, an erect, axillary panicle up to 100 mm long. Flowers sexually perfect, 2-4 mm diam, pale green, perianth cleft into 6 segments, ovate-oblong, stamens 12. Fruit a pendulous, ellipsoid to ovoid drupe (20-)30(-38) x (9-)12(-18) mm, 1-seeded, pericarp fleshy, dark purple-black when ripe, glaucous or shiny.

Flowering:

(October-) January (- May)

Fruiting:

(December-) January (- March)

Threats:

Not Threatened

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 12 February 2004. Description adapted from Allan (1961) and Wright (1984).

References and further reading:

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

de Lange, P.J.; Cameron, E.K. 1999: The vascular flora of Aorangi Island, Poor Knights Islands, northern New Zealand. *New Zealand Journal of Botany* 37: 433-468

Moorfield, J. C. 2005: *Te aka : Māori-English, English-Māori dictionary and index*. Pearson Longman: Auckland

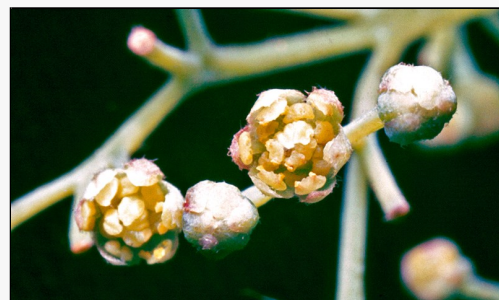
Landcare Research. Ngā Tipu Whakaoranga - Māori Plant Use Database.
<http://maoriplantuse.landcareresearch.co.nz>

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* 2009 Vol. 11 No. 4 pp. 285-309.

Wright, A. E. 1984: *Beilschmiedia* Nees (Lauraceae) in New Zealand. *New Zealand Journal of Botany* 22: 109-125.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1541



Caption: Flowers ex Hakarimata Range.

Photographer: John Braggins



Caption: Flowers of *Beilschmiedia tawa*

Photographer: Wayne Bennett

Bulbophyllum tuberculatum

Common Name(s):

None Known

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. North and South islands, from Kaitaia south to Wellington, and in Marlborough and North West Nelson. Probably more widespread than this as easily overlooked.

Habitat:

An epiphytic plant, usually found on trunks and inner branches of trees in lowland or coastal districts. Favoured trees seem to be matai (*Prumnopitys taxifolia* (D. Don) de Laub.), kahikatea (*Dacrycarpus dacrydioides* (A. Rich.) de Laub.), rimu (*Dacrydium cupressinum* Lamb.), totara (*Podocarpus totara*), tawa (*Beilschmiedia tawa* G. Benn.), hinau (*Elaeocarpus dentatus* (J. R. Forst. et G. Forst.) Vahl) and rewarewa (*Knightia excelsa* R. Br.). It is always found with grey lichens of the genus *Rimelia* Hale et A. Fletcher, *Physcia* (Schred.) Michx., *Heterodermia* Trevis., and *Ramalina* Ach., and often threaded through the climbing fern *Pyrrosia eleagnifolia* (Bory) Hovenkamp.

Features*:

Epiphytic orchid forming tightly clumped masses up to 60 mm diameter on canopy branches and trunks of forest trees. Roots numerous, threaded tightly through encrusting lichens and other epiphytic plants. Pseudobulbs conspicuous, 6-18 x 3-6 mm, green to dark green, ovoid to narrowly ovoid, turgid, smooth surface often spotted with white mealy cells. Apex surmounted by tightly clasping, much reduced scale leaf. Leaf appearing sessile, usually solitary (rarely 2), up to 50 x 5 mm, dark green to purple-green, linear-oblong, acute, glabrous. Flowers racemose, 1-several-flowered, peduncle 10-20 mm long arising from base of pseudobulb; floral bracts triangular, pedicels very short. Ovary minutely tuberculate. Perianth 4 mm long, all parts except labellum, white to whitish-pink. Dorsal sepal narrow-ovate; lateral similar but broader to triangular-ovate, slightly pouched at base. Petals smaller, ovate, obtuse. Labellum mobile on long slender claw; oblong-obovate to sub-hastate, orange to red, fading toward a yellow base; proximal part with 2 raised ridges, margins recurved at apex. Column short, 2-winged at apex. Capsules ovoid.

Flowering:

(September) - November - April

Fruiting:

November - August

Threats:

Probably quite common, but easily overlooked, and current records imply it is naturally sparse. There have been some documented instances where accessible populations have been stripped bare by plant collectors, which is probably the only serious threat to this species. For this reason it is better to use caution when disclosing new findings.

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 14 April 2007: Description adapted from Moore and Edgar (1970).

References and further reading:

Anonymous. 1962. *Bulbophyllum tuberculatum* Col. *Auckland Botanical Society Journal* 19: 1-2.

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

Moss, T.C. 1968. Notes on *Bulbophyllum tuberculatum* (Orchidaceae). *Wellington Botanical Society Bulletin* 35: 36-39

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=216



Caption: *Bulbophyllum tuberculatum* on fallen Kauri bark flake at Opuawhanga
Photographer: Bill Campbell



Caption: Courtman Forest
Photographer: Peter de Lange

Carex secta

Common Name(s):

Purei, Pukio, Niggerhead

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Found throughout the North, South and Stewart Islands. Also on the main Chatham Island, though scarce.

Habitat:

Widespread in suitable wetlands from coastal to montane wetlands.

Features*:

Tussock forming sedge up to 1.5 x 0.8 m, mature specimens with trunk-like bases comprised of matted rhizomes, roots and old culm-bases. Culms 0.25-1(-1.5) m, drooping, trigonous, scabrid, basal sheaths brown to light-brown. Leaves 1.5-7 mm wide, light green to yellow-green (rarely dark green - then in heavy shade), equal to or longer than culms, drooping, channelled, margins and keel scabrid. Inflorescence a loosely branched, somewhat slender, drooping panicle 0.45-1 m long. Spikes pale brown, mostly clustered towards the ends of the slender branchlets. Utricles chestnut brown to dark brown, margins weakly winged, scabrid, light brown to brown, apex with a minute to distinct beak.

Flowering:

(September-) October-November (-December)

Fruiting:

October - March

Threats:

Not Threatened.

***Attribution:**

Description adapted from Moore and Edgar (1970)

References and further reading:

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

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 2009 Vol. 11 No. 4 pp. 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1418



Caption: Carex secta

Photographer: Wayne Bennett



Caption: Carex secta (Purei)

Photographer: Wayne Bennett

Carpodetus serratus

Common Name(s):

putaputaweta, marbleleaf

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Widespread. North, South and Stewart Islands.

Habitat:

Coastal to montane (10-1000 m a.s.l.). Moist broadleaf forest, locally common in beech forest. A frequent component of secondary forest. Streamsides and forest margins.

Features*:

Monoecious small tree up to 10 m tall. Trunk slender, bark rough, corky, mottled grey-white, often knobbed due to insect boring. Juvenile plants with distinctive zig-zag branching which is retained to a lesser degree in branchlets of adult. Leaves broad-elliptic to broad-ovate or suborbicular; dark green, marbled; membranous becoming thinly coriaceous; margin serrately toothed; tip acute to obtuse. Juvenile leaves 10-30 mm x 10-20 mm. Adult leaves 40-60 mm x 20-30mm. Petioles c. 10 mm; petioles, peduncles and pedicels pubescent; lenticels prominent. Flowers in panicles at branchlet tips; panicles to 50 x 50 mm; flowers 5-6 mm diam.; calyx lobes c. 1 mm long, triangular-attenuate; petals white, ovate, acute, 3-4 mm long. Stamens 5-6, alternating with petals; filaments short. Stigma capitate, tip dark; ovules many. Fruit an indehiscent subfleshy-fleshy capsule, 4-6 mm diam., black when mature; cupped in remains of calyx. Seeds many per capsule, in 3-5 locules, small, 1-2 mm long; testa reticulate.

Flowering:

November-March

Fruiting:

January-February (though dried fruit present at any time)

Threats:

Not Threatened.

*Attribution:

Description adapted from Allan (1961), puriri moth information modified from Martin (2010).

References and further reading:

Allan, H.H. 1961. Flora of NZ I. Government Printer, Wellington.

Martin, N. A. (2010). Puriri moth - *Aenetus virescens* fact sheet, retrieved from the website Interesting Insects and other Invertebrates. http://nzacfactsheets.landcareresearch.co.nz/factsheet/OrganismProfile/Puriri_moth_-_Aenetus_virescens.html

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 2009 Vol. 11 No. 4 pp. 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1605



Caption: Rotoiti Mainland Island, Nelson Lakes National Park
Photographer: John Sawyer



Caption: Rotoiti Mainland Island, Nelson Lakes National Park
Photographer: John Sawyer

Corynocarpus laevigatus

Common Name(s):

Karaka, kopi

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Exact indigenous distribution uncertain due to its widespread historic planting by Maori. Common from Raoul and the Three Kings Islands, throughout the North and South Islands to Banks Peninsula and Okarito. Also on the Chatham Islands. Most botanists accept it as native only to the northern half of the North Island. It is probably naturalised from deliberate Polynesian plantings on Raoul and the Chatham Islands.

Habitat:

Common in mainly coastal situations, often a major component of coastal forest, rarely dominant. Occasionally found inland, and then often in association with Maori cultural deposits.

Features*:

Leafy canopy tree up to 15 m tall. Trunk stout up to 1 m diam., Bark grey. Branches stout, erect to spreading. Petioles 10-15 mm long. Leaves dark green above paler beneath, thick, leathery, (50-)100-150 (-200) x (30-)50-70 mm, glossy, elliptic to obovate-oblong, margins recurved. Inflorescence a stout, erect panicle up to 200 mm long, peduncles and pedicels short, somewhat fleshy, pale green. Flowers 4-5 mm diam., greenish-cream to off-white or pale yellow. Sepals suborbicular, petals 5, obovate-spathulate, alternating with 5 subpetaloid staminodes. Fruit an ellipsoid to ovoid drupe 25-40(-46) mm long, flesh pale yellow to orange. Endocarp a fibrous reticulum surrounding a smoother, harder papery layer beneath. This structure enclosing a single seed (kernel).

Flowering:

August - November

Fruiting:

January - April

Threats:

Abundant and not threatened. Often naturalising in suitable habitats.

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange (1 September 2004). Description based on Allan (1961).

References and further reading:

Allan, H.H. 1961: Flora of New Zealand. Vol. 1. Wellington, Government Printer.

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1762



Caption: Seedlings. Lake Westmere, Whanganui. Feb 2013.
Photographer: Colin Ogle



Caption: Seedlings. Lake Westmere, Whanganui. Feb 2013.
Photographer: Colin Ogle

Dacrycarpus dacrydioides

Common Name(s):

kahikatea, white pine

Current Threat Status (2012):

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.

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, subtrigonus, lanceolate-subulate to acuminate with broader base, brown-green or glaucous. Male cones terminal, oblong, 10 mm. Pollen pale yellow. Ovule, terminal, solitary glaucous. 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.

Flowering:

October - January

Fruiting:

February - April

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.

*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

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2099



Caption: Fruit.

Photographer: © John Braggins



Caption: *Dacrycarpus dacrydioides*

Photographer: Wayne Bennett

Dacrydium cupressinum

Common Name(s):

rimu, red pine

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North, South and Stewart Islands from North Cape south. Uncommon in large parts of the eastern South Island. Facultatively extinct on Banks Peninsula, where one natural tree is all that remains. Rimu is the type of the genus *Dacrydium*.

Habitat:

Lowland to montane forest - occasionally ascending to subalpine scrub.

Features*:

Dioecious conifer 35(-60) m tall. Adult trees with trunk bare of branches for 3/4 of length. Trunk stout, 1.5-2 m diam., bark dark brown, falling off in large thick flakes. Wood dark red. Branches in juveniles numerous, slender, branchlets pendulous. Adult branches few, spreading, branchlets slender, pendulous. Leaves dark green, bronze-green, red-green or orange, imbricate, those of juveniles 4-7(-10) mm., 0.5-1 mm wide, keeled, acute, linear-subulate, subfalcate, decurrent; those of subadults ascending, incurved 4-6 mm., rhomboid; of adults similar but appressed, 2-3 mm., rigid, subacute, trigonous. Male and Female "cones" first appear on subadults. Male cones (strobili) solitary or paired, terminal 5-10 mm., oblong. Pollen yellow. Ovules solitary, terminal on up-curved branchlets. Receptacle a fleshy red or deep-orange cup 1-2 mm long. Seed oblong or elliptic-oblong, compressed in section, 3-3.8(-4) mm long, semi-glossy, dark-brown.

Fruiting:

Flowering:

December -
March

Fruits take a year or more to mature and co-occur with young female cones, they are most frequently seen between February and May.

Threats:

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

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 3 February 2006. Description adapted from Allan (1961), Webb & Simpson (2001), fresh material and herbarium specimens.

References and further reading:

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

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

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

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

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2100



Caption: Pihanga, Tongariro National Park

Photographer: John Sawyer



Caption: Pihanga, Tongariro National Park

Photographer: John Sawyer

Dicksonia squarrosa

Common Name(s):

rough tree fern, harsh tree fern, wheki

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North, South, Stewart and Chatham Islands.

Features*:

Tree ferns up to 8 m tall. Rhizomatous usually forming colonial stands. Rhizomes numerous spreading from main stock 1–2 m or more distant, giving rise to subsidiary erect caudices. Trunk slender, solitary, bifurcated (sometimes several times over), up to c.200 mm diam., composed of long-persistent, black stipe bases, interwoven dark brown to black rootlets, red-brown hairs and dormant or active aerial buds. Fronds numerous, persistent or not in death, either falling or forming an untidy, tattered skirt (especially on young plants); in life erect, arching, forming an often tattered, untidy crown, 1.0–2.0(–2.6) m long, 0.5–1.0 m wide. Stipes (180–)280–300(–320) mm long, black, ± rugose, base densely clad deciduous dark red-brown to brown filiform hairs 30–40(–55) mm long; rachises initially clad in dark reddish brown hairs when young, becoming rugose with age. Lamina (0.68–)1.6–(2.28) m long, oblong-lanceolate, (2–)3–4-pinnate, adaxially light to dark glossy green, abaxially paler, harshly coriaceous; primary pinnae 250–500 mm long, deltoid-ovate to lanceolate, acuminate; secondary pinnae close-set to ± overlapping, 50–80 mm long, acute. Barren pinnules 10–18 mm, acute, often sharply toothed, widened and confluent at base, shallowly concave; fertile pinnules close-set, narrowly confluent at base, 10–15 mm long; lobes strongly concavo-convex c.5 mm. long, rounded, each bearing a sorus. Sorus ± rounded, terminating veins at fertile pinnae margins; sporangia on raised receptacle, partially obscured by in rolled pinnae margin, and delicate, submembranous inner indusium. Spores golden brown to red-brown.

Flowering:

Not applicable - spore producing

Fruiting:

Not applicable - spore producing

Threats:

Not Threatened

*Attribution:

Fact Sheet Prepared for NZPCN by P.J. de Lange (10 November 2012). Description by P.J. de Lange.

References and further reading:

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1791



Caption: *Dicksonia squarrosa*

Photographer: Wayne Bennett



Caption: *Dicksonia squarrosa*

Photographer: Wayne Bennett

Dysoxylum spectabile

Common Name(s):

kohekohe, New Zealand mahogany

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North and South Islands. In the South Island not extending much beyond the Marlborough Sounds, reaching a southern limit near the Hurunui River (Napenape).

Habitat:

Common and sometimes dominant or co-dominant tree of coastal to lowland forest.

Features:

Tree up to 15 m tall usually with abroad, spreading canopy. Trunk up to 1 m diam., branches stout, erect then spreading. Bark pale brown, under bark green. Leaves compound, imparipinnate, alternate on pulvinate petioles up to 40 mm long, leaflet pairs 4-6, (50-)-150(-200) x (20-)30(-80) mm, opposite to subopposite, bright green, yellow-green to dark green, ovate to obovate-oblong, leathery, margins somewhat undulate. Plants gynodioecious, with fixed female and inconstant males on different trees. Inflorescence a cymose, drooping, panicle arising from trunk and branches (cauliflorous). Flowers c. 30 mm diam., fleshy. Pedicels short. Calyx divided to base, lobes broad-oblong, abruptly pointed, ciliate, petals linear, 10 mm, spreading, waxy white or greenish. Capsules, woody, broad-obovoid to subglobose, 3-4-celled, c. 25 mm long, green. Seeds 2 per cell, orange or scarlet.

Flowering:

March - June

Fruiting:

April - August

Threats:

Not Threatened. However, where possum and rat numbers are high this species is not actively regenerating. Possums defoliate trees, and will heavily browse inflorescences such that few succeed in flowering and setting fruit. Rats are major seed predators. Only where control of these animals is undertaken, or on possum and rodent-free offshore islands can one see kohekohe flowering, fruiting and regenerating freely. If numbers of these introduced animals remain unchecked, it is clear that kohekohe will decline and vanish from large parts of its natural range.

References and further reading:

Duguid, F. 1985. Kohekohe *Dysoxylum spectabile* as an accidental epiphyte. Wellington Botanical Society Bulletin, 42: 11

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

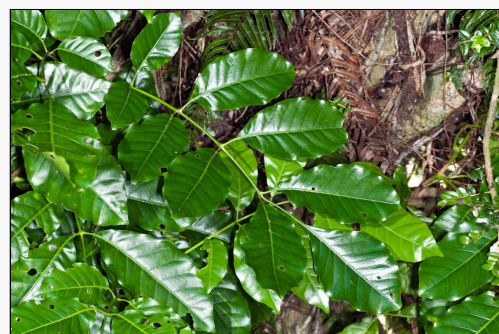
For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1825



Caption: Colonial Knob Scenic Reserve, Porirua.

Photographer: Jeremy Rolfe



Caption: Colonial Knob Scenic Reserve, Porirua.

Photographer: Jeremy Rolfe

Elaeocarpus dentatus var. *dentatus*

Common Name(s):

hinau

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North, and South Islands

Habitat:

Common tree of mainly coastal and lowland forest though occasionally extending into montane forest.

Features*:

Tree up to 20 m tall (usually less), with broad spreading crown. Trunk 1 m diam., bark grey. Branches erect then spreading, branchlets silky hairy when young. Petioles stout, 20-25 mm long. Leaves leathery, (50-)100-120 x 20-30 mm, narrow- to obovate-oblong, broad-obovate, oblanceolate, apex obtuse or abruptly acuminate, dark green and glabrescent above, off-white, silky-hairy below; margins somewhat sinuate, recurved, serrate to subentire. Inflorescence a raceme 100-180 mm long, 8-12(-20)-flowered. Pedicels 10 mm long, silky-hairy. Flowers drooping, (8-)12(-15) mm diam., sepals lanceolate-oblong, 6 mm long, petals white, obovate-cuneate, 3-5-lobed, c. 10 mm long. Stamens 10-20. Fruit a fleshy, ovoid purple-black 12-18 x 9 mm, drupe. Endocarp deeply furrowed and wrinkled.

Flowering:

October - February

Fruiting:

December - May(-June)

Threats:

Not Threatened.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (4 April 2007).
Description adapted from Allan (1961).

References and further reading:

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

Druce, A.P. 1993: Indigenous vascular plants of New Zealand. Ninth Revision. Unpublished Checklist held at Landcare Research, Lincoln, New Zealand.

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1830



Caption: Flowers of *Elaeocarpus dentatus*

Photographer: Wayne Bennett



Caption: Flowers of *Elaeocarpus dentatus*

Photographer: Wayne Bennett

Freycinetia banksii

Common Name(s):

kieke

Current Threat Status (2012):

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.

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.

Flowering:

August - November

Fruiting:

January - May

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

*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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1900



Caption: *Freycinetia banksii* (Kieke)

Photographer: Wayne Bennett



Caption: *Freycinetia banksii* (Kieke)

Photographer: Wayne Bennett

Ileostylus micranthus

Common Name(s):

green mistletoe, pirita

Current Threat Status (2012):

Not Threatened

Distribution:

Indigenous. North, South and Stewart Islands, also on Norfolk Island.

Habitat:

Mainly a coastal and lowland species which rarely extends into upper montane forest. Prefers shrubland and secondary regrowth. This species shows some regional host specificity but nevertheless has been recorded from a wide range (nearly 300) of indigenous and exotic hosts. One of the few indigenous mistletoe's to regularly grow in urban situations.

Features*:

Woody, epiphytic much branched, bushy hemiparasite. producing multiple haustoria (these attaching at intervals long host branch) and epicortical, often spiraled roots. Leaves opposite, coriaceous.

Petioles 5-50 mm long, flattened and slightly winged. lamina 30-60(-80) × 15-40(-68) mm, dark green to yellow-green, broadly elliptic, slightly ovate, ovate, obovate to rhomboid, base attenuate, apex obtuse to rounded. Inflorescences axillary, solitary or paired, in cymose panicles, these 10-15(-20) mm long with 8-9-12(-15) flowers arranged in threes. Flowers male, female or hermaphroditic (the dioecious condition most commonly seen when *Ileostylus* is parasitic on species of totara (*Podocarpus* spp.)). Calyx cylindrical, presenting as an truncate rather obscure narrow rim 0.2 mm high. Petals 4, free, c.3-4 mm × 0.8-1.6 mm, greenish to yellow-green. Anthers 4, basifixed. Style contorted, usually initially coiled in middle, up to 3.0-4.5 mm long when uncoiled. Ovary 1-locular. Fruit a 1-seeded, 5-8 mm, yellow or orange, ellipsoid or globular (rarely ellipsoid-globular) berry. Seed 5.0-5.5 mm long, elliptic, rounded at both ends, terete.

Flowering:

September - December

Fruiting:

December - July

Threats:

Not Threatened

*Attribution:

Factsheet and description prepared for the NZPCN by P.J. de Lange (7 May 2011).

References and further reading:

Cameron, E.K. 2000. An update of the distribution and discovery of *Ileostylus micranthus* in the Auckland region. *Auckland Botanical Society Journal*, 55: 39-44

Duguid, F. 1967. Hosts of *Loranthus micranthus*. *Wellington Botanical Society Bulletin*, 34: 23-24

Menzies, B. 1945. *Loranthus micranthus*. *Auckland Botanical Society Journal*, 2: 8-9

Moore, S. 1987. Mistletoes are urban parks ideal habitats? *Wellington Botanical Society Bulletin*, 43: 26-27

Silbery, T. 2002. A sticky solution to a tricky problem: restoration of *Ileostylus micranthus*. *Wellington Botanical Society Bulletin*, 48: 27-32

Stanley, R. 1998. Mistletoe hunt in Hunua. *Auckland Botanical Society Journal*, 53: 74-75

Young, M. 1996. Information on the *ileostylus* intersection. *Auckland Botanical Society Journal*, 51: 68-69.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=858



Caption: Planted on Matiu/Somes Island

Photographer: John Sawyer



Caption: Banks Peninsula

Photographer: Melissa Hutchison

Korthalsella clavata

Common Name(s):

Leafless mistletoe, dwarf mistletoe

Current Threat Status (2012):

Naturally Uncommon

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

Fruiting:

October - June

Threats:

Not Threatened

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.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=883



Caption: Paengaroa S.R. Mataroa, Taihape

Photographer: Peter de Lange



Caption: Catlins

Photographer: John Barkla

Laurelia novae-zelandiae

Common Name(s):

Pukatea

Current Threat Status (2012):

Not Threatened

Threats:

Not Threatened

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=901



Caption: Laurelia novae-zelandiae

Photographer: John Smith-Dodsworth



Caption: Lake Rotokare,
Taranaki. Jun 2012.

Photographer: Colin Ogle

Metrosideros colensoi

Common Name(s):

Rata

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. New Zealand: North Island (from central Northland south), South Island (Nelson and Marlborough to Westland and southern Marlborough / North Canterbury (Napenape)

Habitat:

Lowland to montane forest (particularly a vine seen in riparian and alluvial forest). Especially common in limestone areas on rock outcrops, in gorges, cliff faces and around cave entrances.

Features*:

Slender to very slender vine up to 10 m tall. Bark grey to pale grey, ± tessellated, and flaking in tabular shards. Initial stems sparingly branched but soon much-branched, widely spreading, apices trailing and pendent. Branchlets subterete, pilose-pubescent (indument in mixtures or fine, short and long pilose brownish hairs). Leaves not markedly dimorphic, close-set to overlapping (± imbricate), submembranous to subcoriaceous, petiolate, ± subsessile; petioles 1-3 mm long, subterete; juvenile lamina 4-10 × 2-8 mm, ovate-lanceolate, base cuneate to almost truncate, apex acute to acuminate, initially yellow-green, adaxially maturing to green, abaxially paler, both surfaces finely covered in minute oil glands, and initially densely pubescent, ± glabrescent; adult lamina 8-20 × 5-20 mm, otherwise similar. Inflorescences terminal and lateral, white (rarely pink), comprising small, few-flowered cymes; peduncles and pedicels pubescent, peduncles 10-30 mm long, pedicels up to 3 mm long; hypanthia 5 mm long, narrowly-urceolate or -subglobose to ± funnellform, pubescent, hypanthium rim exceeding disc, calyx lobes 1.5-2.0 mm long, narrow deltoid, acute to acuminate, initially forward projecting, spreading with age. Petals 1.5-2.2 × 1.5-2.2 mm, orbicular, not or only scarcely exceeding calyx lobes. Stamens numerous, filaments 8-12 mm long, anthers yellow. Style 10-14 mm long, stigma capitate. Capsule 4-6 mm diameter, narrowly urceolate to subglobose, externally 3-ribbed, 3-valved. Seeds 0.6-1.1 mm long, narrowly elliptic, narrowly obovate or oblong, apex usually curved orange to orange-brown, unfilled seeds dark orange-brown.

Flowering:

August to October

Fruiting:

December - April

Threats:

Not Threatened

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (6 January 2013). Description from herbarium specimens and fresh material.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=981



Caption: Auckland.

Photographer: Peter de Lange



Caption: Auckland.

Photographer: Peter de Lange

Metrosideros robusta

Common Name(s):

Northern rata

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. New Zealand: Three Kings Islands, North Island (formerly widespread from Te Pahi south to Wellington, now scarce over large parts of this range, and apparently absent from the Hawkes Bay). South Island (abundant from Nelson west and south to Greymouth, from there locally common to about Hokitika, reaching a southern limit just south of Lake Mahinapua. In the east recently recorded from one site near Okiwi Bay, western Marlborough Sounds - though this site is unusual and may not be natural).

Habitat:

Coastal and Lowland forest occasionally extending to montane forest in some parts of the country. Once the co-dominant emergent tree of a distinctive vegetation type called rimu (*Dacrydium cupressinum*)/rata forest.

Features*:

Stout tree 25-40 m tall, often starting life as epiphyte, so basal trunk is hollow, and composed of interlocking roots. Trunk 2-3(-4) m diam. Bark firm, persistent, grey-brown, brown or rarely pale yellow, tessellated, shallowly furrowed, somewhat corky. Branchlets numerous, very twiggy (broom-like), puberulent with rust-brown hairs when young. Leaves (excl. water shoots) 25-50(-65) x (10-)15-25(-30) mm, leathery, dark-green, elliptic, ovate-oblong, to rhomboidal, apex obtuse, distinctly notched. Young growth pink, finely covered in rust-brown hairs, becoming glabrescent with age (hairs long persistent on midrib and leaf base). Water shoots - variable shape and size, glabrescent, pale green or yellow-green, delicate and wilting if detached from tree. Inflorescence a broad, terminal corymbiform, cymose, cluster of numerous flowers apically dominated by a temporarily dormant vegetative bud, which recommences growth following flowering. Pedicels 5-8 mm long. Hypanthia obconic, 9 mm long, sepals broad-triangular, petals shedding early, 2 x 3 mm, oblong, dark red, pink, orange or yellow, stamens numerous (25)-30-40 mm long, anthers versatile, pollen dark yellow to orange. Pistil similar length, stigma capitate. Ovary fused to hypanthium, ovules numerous. Capsules oblong 6-9 mm, distinctly raised above sepals and hypanthial rim. Seeds 2.5-5.5 mm, narrowly elliptic to linear, often twisted with apices usually curved or hooked.

Flowering:

(October-) November-January
(-February)

Fruiting:

(December-)-January
(-March)

Threats:

Northern rata is most at risk from possum (*Trichosurus vulpecula*) browse. Possums can seriously damage and kill trees, and have, in some situations been directly responsible for the regional loss of northern rata. The species remains common over large parts of range, a situation being improved by the efforts of people encouraged by the national coordination of Project Crimson. Another threat to northern rata comes from hybridization with pohutukawa (*Metrosideros excelsa*) which has now become established well south of its presumed natural southern limits. Ideally people should be discouraged from planting pohutukawa in places it is not natural to, especially when this borders habitats containing northern or southern rata (*Metrosideros umbellata*).

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (4 January 2004). Description adapted from Allan (1961).

References and further reading:

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

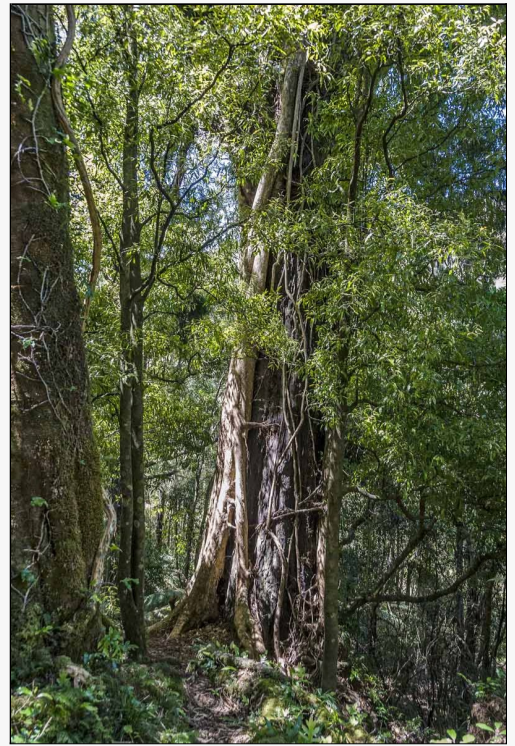
Beddie, A.D. 1953. Root behaviour in *Metrosideros*. *Wellington Botanical Society Bulletin*, 26: 2-6

Report on Northern rata dieback - *Minginui faces* by Gordon Hosking (DOC Conservation Advisory Science Notes, No. 66, 1994)

Sawyer, J.W.D., Mckessar, K. 2007. Northern rata (*Metrosideros robusta*): a species in decline? *Wellington Botanical Society Bulletin*, 50: 48-55

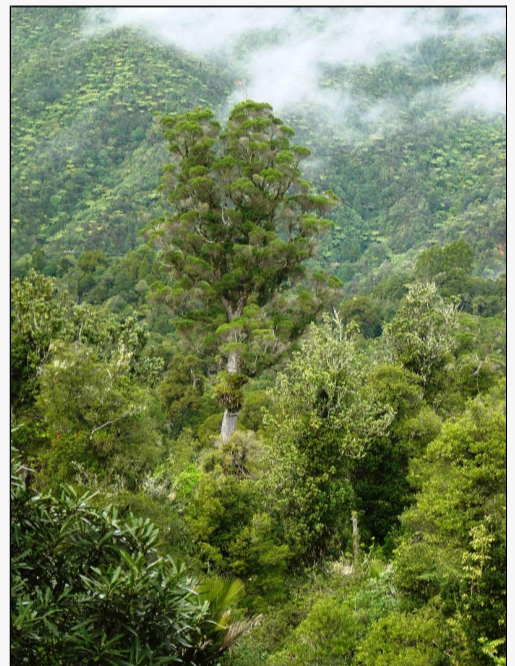
For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=977



Caption: Roots girdling trunk of rimu. Tararua Forest Park. Nov 2012.

Photographer: Jeremy Rolfe



Caption: *Metrosideros robusta*
Photographer: Wayne Bennett

Myrsine australis

Common Name(s):

Red mapou, red matipo, mapau, red maple

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Three Kings, North, South and Stewart Islands.

Habitat:

Common tree of regenerating and mature forest in coastal to montane situations. Often common on northern offshore islands.

Features*:

Shrub or small tree up 6 m tall. Trunk stout, 0.2-0.6 m diam. Bark dark black or purple-black, red on younger branches. Branchlets numerous erect to spreading, very leafy. Petioles stout, fleshy, 5 mm long, often red or green mottled red. Leaves 30-60 x 15-25 mm, dark green to yellow-green variously mottled or blotched with red, or purple spots, leathery, glabrous except for finely pubescent mid vein, obovate-oblong to broad-elliptic, apex obtuse, margins entire, strongly undulate, rarely flat. Inflorescence a fascicle, usually numerous and crowded, produced along branchlets and in leaf axils. Fixed female and inconstant male flowers on different plants, 1.5-2.5 mm diam., white, cream or pale green. Pedicels short, stout, dark red or purple-black. Calyx-lobes 4, sometimes heavily reduced, long persistent. Petals 4, lanceolate, obtuse, free, revolute. Fruit a 1-seeded drupe, 2-3 mm diam., purple-black to black when mature.

Flowering:

August - January

Fruiting:

September - May

Threats:

Not Threatened

*Attribution:

Fact Sheet Prepared for NZPCN by: P.J. de Lange 28 October 2009.
Description based on Allan (1961)

References and further reading:

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1007



Caption: Male flowers. Rimutaka Forest Park.

Photographer: Jeremy Rolfe



Caption: Male flowers. Rimutaka Forest Park.

Photographer: Jeremy Rolfe

Podocarpus acutifolius

Common Name(s):

Westland totara, needle-leaved totara

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. New Zealand: South Island (mostly westerly from the Buller River and adjoining tributaries, west and south to Martins Bay)

Habitat:

Lowland to montane along river flats, in forest or open shrubland and grassland. Often forming dense thickets along active and passive river channels.

Features*:

Shrub or small tree up to 15 m tall, Trunk often several (due to suckering from base), main trunk up to 0.4 m diameter breast height Bark somewhat chartaceous, stringy and thin, flaking readily in long or short strips. Branches erect, slender up to 9 m. Branchlets erect, slender initially densely leafy, leaves shedding along branchlet with age. Leaves 15.0-23.0 × 0.75-3.5 mm, dark green to yellow-green, linear, acuminate, pungent, mid-vein indistinct; stomatal lines often conspicuous. Male strobili axillary, solitary or up to 4 together on common peduncle 2-3 mm long; peduncle furnished above with 2 narrow-triangular keeled scales and below with 4 ovate scales; strobilus 10-20 mm long; apiculus obtuse. Ovules solitary or in pairs on peduncle c.1 mm long; receptacle 2.5-7.0 mm long, red irregularly elliptic-oblong to obovate-oblong, slightly compressed, smooth, swollen (fleshy). Seeds solitary or paired, 4.0-5.5 mm long, green when fresh, elliptic to ovate-elliptic, slightly asymmetric, narrow-acuminate, blunt or subacute.

Flowering:

September - November

Fruiting:

December - June

Threats:

Not Threatened

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 4 January 2012. Description adapted from Allan (1961) and Webb & Simpson (2001).

References and further reading:

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

Wardle, P. 1972: *Podocarpus totara* var. *waihoensis* var. nov. : the result of introgressive hybridisation between *P. totara* and *P. acutifolius*. *New Zealand Journal of Botany* 10: 195-201.

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1173



Caption: *Podocarpus acutifolius*

Photographer: Peter de Lange



Caption: *Podocarpus acutifolius*

Photographer: John Barkla

Prumnopitys taxifolia

Common Name(s):

Matai, black pine

Current Threat Status (2012):

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.

Flowering:

(October-) November - February

Fruiting:

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

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.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1193



Caption: Matai with female cones

Photographer: Bill Clarkson



Caption: Cones of *Prumnopitys taxifolia* (male)

Photographer: Wayne Bennett

Rhopalostylis sapida

Common Name(s):

Nikau palm

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North Island, South Island from Marlborough Sounds and Nelson south to Okarito in the west and Banks Peninsula in the east. Also on Chatham and Pitt Islands. However Chatham Islands plants have a distinct juveniel form, larger fruits, and thicker indumentum on the fronds.

Habitat:

Primarily a species of coastal to lowland forest in the warmer parts of New Zealand.

Features:

Trunk up to 15 m, stout, covered in grey-green leaf scars, otherwise green. Crownshaft 0.6(-1) m long, dark green, smooth, bulging. Fronds up to 3 m long; leaflets to 1 m, closely set (sometimes over lapping), ascending. Spathes c.300 x 150 mm., between pink and yellow, caducous. Inflorescence shortly stalked, with many branches, 200-400 mm long. Flowers sessile, unisexual, tightly packed, lilac to pink. Males in pairs, caducous, stamens 6. Females solitary, with minute staminodes, ovary 1-locular, stigmas terminal, recurved, persistent. Fruit c.10 x 7 mm, elliptic-oblong, flesh red.

Flowering:

November - April

Fruiting:

February - November

Threats:

Not Threatened

References and further reading:

Esler, A.E. 1969. Leaf fall and flowering of nikau. Wellington Botanical Society Bulletin, 36: 19-22

Greenwood, R.M. 1969. Notes on growth of young nikau plants. Wellington Botanical Society Bulletin, 36: 22-23

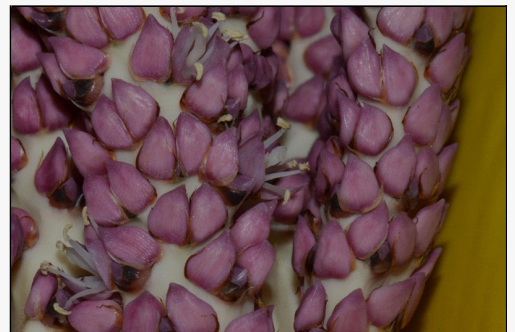
For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1259



Caption: *Rhopalostylis sapida*

Photographer: Pat Enright



Caption: *Rhopalostylis sapida*

Photographer: Pat Enright

Ripogonum scandens

Common Name(s):

Supplejack, kareao

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North, South, Stewart and Chatham Islands

Habitat:

Coastal to montane. Usually in forest but occasionally in swamps (where it sprawls through flax and fern), and common in karst country where it often grows in doline, tomo and cave entrances

Features*:

Woody, evergreen, twining forest liane. Rhizome horizontal, stout, lignaceous, usually swollen into a woody tuber 30-60 mm diameter at base of erect stem. Stems of two kinds: (a) twining stems growing upward from mature rhizome on forest floor, without green lvs, succulent at tip; these are several metres long, c.15-20 mm diameter, little branched, almost black, finely pubescent; nodes c.100-200 mm apart, thickened; sheathing scale leaves alternate, subopposite or opposite, membranous, 10-30 mm long, charcoal black, narrowly deltoid, finely brown-scabrid, caducous. (b) non-twining stems arising from the long stems in full light; these are to 1 m long, c.5 mm diameter, more branched and widely spreading, light brown, glabrous; internodes shorter, the distal ones bearing green leaves and inflorescences. Leaves mostly opposite, 55-160(-230) × 20-60(-80) mm, green, dark green or yellow-green, ± coriaceous, narrow-ovate to oblong, narrowed rather abruptly to tip, margins entire and ± undulate; petiole c.10-15 mm long, ± channelled. Inflorescence axillary or terminal, simple or compound, 100-150(-280) mm long; bracts usually all small and membranous, rarely foliaceous. Pedicels c.5-9 mm long, without bracteole at base but with one or more adjacent to and resembling perianth-segs. Flowers not crowded. Tepals green often hyaline green, minute, free, spreading. Stamens much > tepals; filaments c.2 mm long; anthers greenish, yellow or cream, linear-oblong, c.3.0-5.0 × 1.0-1.5 mm, dehiscing laterally by long slits. Ovary globose, c.1.5 mm diameter; ovules 2 per locule, attached about mid-level; style 2 mm long, including stigma of 3 verrucose lobes. Fruit globose, bright red, c.10-15 mm diameter, pericarp thin, fleshy, tightly stretched over 1-2(-3) hard, spotted seeds, seed when single almost spherical. Fruit falling, 12-15 months after flowering, by abscission layer just above perianth.

Flowering:

October - May

Fruiting:

Throughout the year

Threats:

Not Threatened

*Attribution:

Description adapted from Moore & Edgar (1970). Fact sheet prepared for NZPCN by P.J. de Lange 14 February 2011.

References and further reading:

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1260



Caption: Rangaika, Chatham Island. Jun 2013.

Photographer: Jeremy Rolfe



Caption: Nikau Bush, Chatham Island. Jun 2013.

Photographer: Jeremy Rolfe

Syzygium maire

Common Name(s):

swamp maire, maire tawake, waiwaka

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North and South Island from Te Pahi south to Rarangi (near Blenheim). Now often scarce or absent over large parts of its former range due to the clearance of swamp forest.

Habitat:

Mostly found in coastal and lowland riparian forest in waterlogged ground, on the margins of swamps and streamsides. Also found in some of montane forest and cloud forest of Northland (e.g., Tutamoe) and the western Waikato (Pirongia, Taumatotara and Tawarau) where high rainfall and poor drainage provide ideal conditions for this tree to establish on hill slopes, tablelands and with karst landscapes.

Features*:

Glabrous tree to c.16 m high. Trunk up to 0.8 m dbh, solitary or with several arising from base, often with knees and where the root plate is exposed frequently bearing pneumatophores. Bark smooth, pinkish grey, grey-brown or white, flaking in soft or brittle, irregular shards. Branches numerous, spreading, branchlets numerous, spreading, 4-angled. Leaves opposite, subcoriaceous, adaxially yellow-green to green, glossy often bearing small galls and leaf blisters, midrib impressed, side veins slightly impressed scarcely evident when viewed from above; abaxial surface pale green, midrib prominently raised, side veins evident when fresh or dried; margins entire, sinuate or undulate; petioles 5-10 mm long, slender, brittle. Lamina 15-60 × 10-25 mm, usually elliptic, sometimes broadly elliptic. Inflorescences in cymose 5-30-flowered clusters, up to 100 mm diameter.

Pseudopedicels slender. Hypanthium 2-3 mm long at anthesis, obconic; calyx lobes very short and broad, persistent on fruit. Petals 2-3 mm diameter, orbicular, white, forming calyptum in bud, caducous. Stamens numerous, 5-12(-18) mm long, white, in 6-8 (or more) indistinct whorls, filaments 4.5-17.5 mm long, white, anthers basifixed, pollen white. Style 5-18 mm long, distinctly broader than stamens and tapering, cream to yellow-green. Ovary adnate to base of hypanthium. Fruit 10-15 mm diameter, subglobose, broad-ellipsoid or elliptic-ovoid, flesh deep crimson, glossy. Seed 1, 6-11 mm long, obovate, testa dull, very hard, covered in fibres, striped pale orange-yellow and pale brown, brown or grey-brown.

Flowering:

November - July

Fruiting:

January - December

Threats:

Not Threatened. However, many populations now qualify as "Living Dead" as they persist (and are in slow terminal decline) as remnants within partially drained farmland (previously riparian forest). In some parts of its range it is listed as regionally threatened, e.g., Auckland and Wellington.

*Attribution:

Factsheet prepared by: P.J. de Lange (5 November 2005). Description based on Webb et al. (1988), Webb & Simpson (2001) and observations made from fresh material.

References and further reading:

Cameron, E.K., Cutting, M. 1995. Maire tawake at Browns bay Auckland. *Auckland Botanical Society Journal*, 50: 66-70.

Webb, C.J.; Simpson, M.J.A. 2011: Seeds of New Zealand Gymnosperms and Dicotyledons. Christchurch, Manuka Press.

Webb, C. J.; Sykes, W. R.; Garnock-Jones, P. J. 1988: *Flora of New Zealand. Vol. IV. Naturalised Pteridophytes, Gymnosperms, Dicotyledons*. Christchurch, New Zealand, Botany Division, D.S.I.R.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1313



Caption: *Syzygium maire*

Photographer: Wayne Bennett



Caption: Flower of *Syzygium maire*

Photographer: Wayne Bennett

Typha orientalis

Common Name(s):

raupo, bullrush

Current Threat Status (2012):

Not Threatened

Distribution:

Indigenous. Kermadec Islands group (Raoul Island only), North and South Islands. Deliberately naturalised on the Chatham Islands by Maori. Present also in Australia, Malaysia, Indonesia and the wider western Pacific

Habitat:

Coastal to lowland in fertile wetlands, on the margins of ponds, lakes, slow flowing streams, and rivers. Less frequently found on the margins of low moor bogs. Occasionally found in muddy ground within industrial areas.

Features*:

Stout summer green, rhizomatous, colonial, usually emergent perennial herb up to 3 m tall. Rhizome to 40 mm diameter, fleshy, covered in numerous scale leaves, usually submerged in water or mud. Leaf-sheath often > 300 mm long; 1-3 m long, 10-30 mm diameter, dull green to grey-green, lamina linear-lanceolate to lanceolate, more or less plano-convex at base, pith spongy. Peduncle usually < leaves, up to 15 mm diameter. Inflorescence 300-500 mm long, the female part up to 25 mm diameter, the male portion narrower, and either continuous with or more or less separated from the female. Bracteoles in male portion more numerous than stamens, more or less equal to anthers, proximally narrow-linear, broader at tip and there variously lacinate, arising directly on axis and remaining more or less curled up after flowers fall. Male flower sessile to subsessile filaments at first shorter than anther-width, elongating later; anthers 1-3, tipped with blunt extension of connective; pollen clear yellow, grains single. Bracteoles in female part very few, absent from many flowers, more or less equal to gynophore hairs, filiform except for a few-celled expansion at apex. Female flowers much smaller than male, several grouped on proximal part of a short compound pedicel. Ovary at flower almost sessile, narrow-elliptic; style long, slender; stigma broader, spatulate, more or less concave; gynophore hairs extremely numerous, barely reaching base of stigma, stiff, filiform, very narrowly clavate at apex. Gynophore elongating at fruit 1-2 times style-length, hairs becoming confined to proximal third of gynophore and in groups or more or less whorled; persistent stigmas brown. Carpodia oblong-obovate, apices just projecting between the hairs. Seed 1.2 mm long, cuneate at base, truncate at apex, yellow.

Flowering:

December - February

Fruiting:

March - June

Threats:

Not Threatened

*Attribution:

Description adapted from Moore and Edgar (1970).

References and further reading:

Mason, R., Moar, N.T. 1951. *Typha* in N.Z. *Wellington Botanical Society Bulletin*, 24: 6-9

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

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2279



Caption: *Typha orientalis* (Raupo)

Photographer: Wayne Bennett



Caption: *Typha orientalis* (Raupo)

Photographer: Wayne Bennett

Urtica linearifolia

Common Name(s):

swamp nettle

Current Threat Status (2012):

Declining

Distribution:

North and South Island.

Habitat:

Fertile, lowland swamps, lakes and river margins, swampy shrubland and forest, often growing over tree stumps and rushes.

Features:

Sparingly branched herb which inflicts a painful sting. Stems up to 2m tall. Leaves opposite, narrow, 3-8cm long, 5-12mm wide, sharply toothed with teeth 1-2mm long. Branchlets, leaf stalks and leaves sparsely clad in stinging hairs. Flowers inconspicuous, green to reddish, mealy, clustered in short spikes in leaf axils. Fruit small, 1-1.5mm long, dry, brown and one seeded.

Flowering:

Flowering occurs throughout the year

Fruiting:

Fruits may be found throughout the year

Threats:

A sparsely distributed species of lowland to montane lake margins and fertile to semi-fertile wetlands. Easily overlooked because of its penchant for grow at the base of *Carex secta* trunks, or threaded through *Phormium tenax*. Being an adaptable species it is often found within willow (*Salix* spp.) car, sometimes as a low epiphyte on willow trunks. In all these habitats it is at risk from wetland clearance, drainage and also the spread of weeds such as wandering jew (*Tradescantia fluminensis*). Some large populations in the Horowhenua have been destroyed by the canalisation of streams and through willow control.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=211



Caption: Lake Wairarapa. July 2011.

Photographer: Pat Enright



Caption: Lake Wairarapa. July 2011.

Photographer: Pat Enright