



Gemmels Crossing: Shrubbery for exposed sites



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Prepared for the Gemmels Crossing Village by Max Crowe - max@fieldlab.nz

Austroderia richardii

Common Name(s):

Toetoe

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Confined to the South Island. Possibly in the North Island, east of Cape Palliser. Naturalised in Tasmania.

Habitat:

Abundant, from the coast to subalpine areas. Common along stream banks, river beds, around lake margins, and in other wet places. Also found in sand dunes, especially along the Foveaux Strait.

Features*:

Tall, gracile, slender tussock-forming grass up to 3 m tall when flowering. Leaf sheath glabrous, green, covered in white wax. Ligule 3.5 mm. Collar brown, basally glabrous, upper surface with short, stiff hairs surmounting ribs. Leaf blade 2-3 x 0.25 m, green, dark-green, often somewhat glaucous, upper side with thick weft of hairs at base, otherwise sparsely hairy up midrib with abundant, minute prickle teeth throughout. Undersurface with leaf with 5 mm long hairs near leaf margins, otherwise harshly scabrid. Culm up to 3 m, inflorescence portion up to 1 m tall, pennant-shaped, drooping, narrowly plumose. Spikelets numerous, 25 mm with 3 florets per spikelet. Glumes equal, > or equal to florets, 1- or 3-nerved. Lemma 10 mm, scabrid. Palea 6 mm, keels ciliate. Callus hairs 2 mm. Rachilla 1 mm, glabrous. Flowers either perfect (anthers 4.5 mm) or female (3 mm). Ovary 1 mm (perfect), stigma -styles 2.5 mm; female flowers with ovary 1.3 mm, stigma-style 4 mm. Seed 3-4 mm.

Flowering:

September - November

Fruiting:

October - March

Threats:

Abundant and not threatened. Often naturalising in suitable habitats.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 1 October 2006. Description adapted from Edgar & Connor (2000).

References and further reading:

Edgar, E.; Connor, H.E. 2000: Flora of New Zealand. Vol. V. Grasses. Manaaki Whenua Whenua Press, Christchurch.

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=1758



Caption: Waituna Lagoon, Southland

Photographer: Jesse Bythell



Caption: Kakanui Mountains, Otago

Photographer: John Barkla

Chionochloa rigida subsp. amara

Common Name(s):

narrow-leaved snow tussock

Current Threat Status (2012):

Not Threatened

Threats:

Not Threatened

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1670

Coprosma crassifolia

Current Threat Status (2012):

Not Threatened

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* 11: 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1708



Caption: Windshorn plant.

Aramoana

Photographer: John Barkla



Caption: Bark. Hayward Point,
Dunedin

Photographer: John Barkla

Coprosma propinqua var. *propinqua*

Common Name(s):

mingimingi

Current Threat Status (2012):

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* 11: 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1728



Caption: Waikanae Estuary.
Photographer: Jeremy Rolfe



Caption: *Coprosma propinqua*
var. *propinqua*
Photographer: Wayne Bennett

Cordyline australis

Common Name(s):

cabbage tree, ti, ti kouka, palm lily

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. Common in the North, South and Stewart Islands. Probably naturalised on the Chatham Islands.

Habitat:

Widespread and common from coastal to montane forest. Most commonly encountered on alluvial terraces within riparian forest.

Features:

Tree up to 20 m tall, trunk stout, 1.5-2 m diam, many-branched above (prior to flowering, trunk slender and solitary, branching happens after the first flowering). Bark corky, persistent, fissured, pale to dark grey. Leaves numerous (0.2-)0.3-1(-1.5) x (0.2)-0.3(-0.6) m, dark to light green, narrowly lanceolate to lanceolate, erect to erecto-patent, scarcely inclined to droop, midrib indistinct. Petiole indistinct, short. Inflorescence a panicle. Peduncle stout, fleshy 40 mm or more in diam., panicle of numerous flowers, (0.6-)1(-1.8) x .3-0.6(-0.8) m, branching to third or fourth order, these well spaced, basal bracts green and leaf-like, ultimate racemes 100-200 mm long, 20 mm diam., bearing well-spaced to somewhat crowded, almost sessile to sessile flowers and axes. Flowers sweetly perfumed, perianth 5-6 mm diam., white, tepals free almost to base, reflexed. Stamens about same length as tepals. Stigma short, trifid.

Flowering:

(September-) October-
December (-January)

Fruiting:

(December-)
January-March

Threats:

Populations have been decimated from some parts of the country due to a mysterious illness linked to a Myoplast Like Organism (MLO) which is believed to cause the syndrome known as Sudden Decline. Plants stricken with this illness suddenly, and rapidly, wilt, with the leaves failing off still green. If the bark is peeled off the base of the tree near the soil line blackened or rotten spots are typically present. Once stricken with Sudden Decline there is no cure and the trees can die within days. Recently there has been some evidence to suggest the severity of Sudden Decline is lessening.

References and further reading:

Beever, R. et al. 1996. Sudden decline of cabbage tree. *NZ Journal of Ecology*, 20(1): 53-68

Duguid, F. 1976. *Cordyline australis* at Lake Kopureherehe. *Wellington Botanical Society Bulletin*, 39: 46-47

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=1744



Caption: Awhitu Regional Park, Auckland region

Photographer: John Sawyer



Caption: *Cordyline australis*

Photographer: Wayne Bennett

Corokia cotoneaster

Common Name(s):

Korokio, wire-netting bush

Current Threat Status (2012):

Not Threatened

Threats:

Not Threatened

References and further reading:

Moorfield, J. C. (2005). Te aka : Maori-English, English-Maori dictionary and index. Pearson Longman: Auckland, N.Z.

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=1756



Caption: Upper Oreti River, Southland

Photographer: Jesse Bythell



Caption: Fuit, Greenstone Valley

Photographer: John Barkla

Discaria toumatou

Common Name(s):

matagouri, wild Irishman

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North and South Islands. In the North Island known from near Waiuku south to the southern Wairarapa and Wellington coastline. Very uncommon in the North Island. In the South Island mainly east of the main divide, appearing to avoid areas of high rainfall

Threats:

Not Threatened for most of its range. However, very uncommon and under threat throughout the North Island, where it is now known from very few sites and viable populations.

References and further reading:

Chrystall, L. 1976. Further record of matagouri in the North Island. *Wellington Botanical Society Bulletin*, 39: 47

Duguid, F. 1976. Matagouri at Herbertville. *Wellington Botanical Society Bulletin*, 39: 45

Elder, N.L. 1966. Matagouri in the North Island. *Wellington Botanical Society Bulletin*, 33: 5

Elder, N.L. 1967. Matagouri in the North Island - Part 2. *Wellington Botanical Society Bulletin*, 34: 19-20

Moorfield, J. C. (2005). *Te aka : Maori-English, English-Maori dictionary and index*. Pearson Longman: Auckland, N.Z.

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=1795



Caption: Matukituki, Mt Aspiring
Photographer: John Sawyer



Caption: Matukituki, Mt Aspiring
Photographer: John Sawyer

Fuchsia perscandens

Common Name(s):

Fuchsia

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North and South Islands, found from near Pipiwai, Northland to Southland. Often uncommon over large parts of its range

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* 11: 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1902



Caption: *Fuchsia perscandens* ex. Awaroa

Photographer: Peter de Lange



Caption: Mount Torlesse

Photographer: Melissa Hutchison

Muehlenbeckia complexa var. *complexa*

Common Name(s):

Small-leaved pohuehue, scrub pohuehue, wire vine

Current Threat Status (2012):

Not Threatened

Threats:

Not Threatened

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=991



Caption: *Scandia geniculata* flowers and foliage through *Muehlenbeckia*. Birdlings Flat, Canterbury.

Photographer: Jesse Bythell



Caption: Habitat, Birdlings Flat, Canterbury

Photographer: Jesse Bythell

Olearia lineata

Common Name(s):

None known

Current Threat Status (2012):

At Risk - Declining

Distribution:

Endemic. South Island, easterly from north Canterbury south to Southland and Stewart Island.

Habitat:

Lowland to montane (10-300 m a.s.l.) grey scrub, tussock grassland and forest margins. Often on river terraces in or near seepages and ephemeral wetlands, on occasion even growing in shallow water. Also found on the margins of steep river gorges, and in and amongst rock outcrops, boulder field and at the toe of alluvial fans.

Features:

Small tree up to 8 m tall with narrow to broad canopy crowns. Trunk stout, erect, solitary, sometimes several arising from the ground, up to 0.6 m d.b.h. Bark grey or charcoal-grey, firm, deeply furrowed, shedding in tough, corky shards. Branches sparse to numerous, at first ascending then widely spreading; branchlets grey to charcoal grey, more or less square and angled in cross-section, deeply and longitudinally grooved, slender, at first erect then spreading, ultimately pendulous. Brachyblasts 10-30 mm long distantly spaced. Leaves 2-10-fascicled; 20-60 x 0.4-0.8 mm, linear to very narrow-linear, upper surface dark green more or less covered with finely appressed greyish-white indument, glabrate to glabrous with age, undersides clad in soft, white to greyish-white appressed tomentum, margin often strongly revolute. Capitula discoid, 1-8-fascicled, 2-4(-6) mm diameter, pedicellate, pedicels up to 40 mm long; florets 6-10, off-white to white (rarely creamy yellow), involucre bracts 2-4-seriate, narrowly lanceolate to oblanceolate, undersides finely grey-white villous. Cypselas 1-2 mm long, compressed, finely pubescent, puberulent to glabrescent, pappus hairs 2-3 mm long, off white to buff.

Flowering:

November - January

Fruiting:

January - April

Threats:

Widespread and at times locally abundant (especially in some parts of Central Otago) *O. lineata* is otherwise often known from only widely scattered sites with few individuals. Although widespread the majority of the known populations are not officially protected and recruitment is often lacking. *Olearia lineata* together with the majority of Eastern South Island endemic *Olearia* Sect. *Divaricaster* Heads is the subject of a major Department of Conservation initiated Recovery Plan. As part of that work this species has been subject to intensive survey.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=294



Caption: Hunter Valley

Photographer: John Barkla



Caption: Bark, Hunter Valley

Photographer: John Barkla

Ozothamnus leptophyllus

Common Name(s):

Tauhinu

Current Threat Status (2012):

Not Threatened

Threats:

Not Threatened

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1081



Caption: *Ozothamnus leptophyllus* (Tauhinu)
Photographer: Wayne Bennett



Caption: *Ozothamnus leptophyllus* (Tauhinu)
Photographer: Wayne Bennett

Pseudopanax crassifolius

Common Name(s):

Horoeka, lancewood

Current Threat Status (2012):

Not Threatened

Distribution:

Endemic. North, South and Stewart Islands. Widespread and common

Habitat:

Lowland to montane forest. Sealevel to c. 750 m a.s.l.

Features*:

Bushy topped tree to 15 m tall, branchlets fleshy, trunk unbranched in lower part, to 50 cm diam., distinctly ridged when young, bark dark becoming paler with age, wood tough. Leaves alternate; leaflets 1-3 in seedling, palmate, sessile or subsessile on very short petiolule, submembranous coarsely toothed, absent from juvenile and adult. Juvenile leaves dark green, narrow-linear, deflexed, to 1 m long, coriaceous, midrib pale cream-yellow, raised, margins distantly sharply toothed, distal margin of tooth perpendicular to midvein, not swollen. Adult leaves shorter, 10-20 x 2-3 cm, dark green, very occ. trifoliate (probably due to hybridisation with other species), narrow elliptic-cuneate to lanceolate or linear-obovate, acute or obtuse, margins entire to sunuate or coarsely serrate, subsessile or on petioles to 10 mm long, petiole base expanded around stem. Inflorescence a terminal umbel, irregularly compound; primary rays (branchlets) 5-10, c. 6 cm long; umbellules sometimes racemosely arranged. Ovary 5-loculed, each containing 1 ovule; style branches 5, connate, tips sometimes free. Fruit fleshy, subglobose, 4-5 mm diam., style branches retained on an apical disc, dark purple when ripe. Seeds 4-5 per fruit, easily separated, broadly ovate, grooved, 2.2-3.5(-5.5) mm long.

Flowering:

January-April

Fruiting:

January-April

Threats:

Not Threatened

*Attribution:

Description adapted from Allan (1961) and Webb and Simpson (2001).

References and further reading:

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

Webb, C.J. & Simpson, M.J.A. 2001. Seeds of NZ gymnosperms and dicotyledons. Manuka Press, Christchurch.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1196



Caption: *Pseudopanax crassifolius*

Photographer: Wayne Bennett



Caption: Seeds of *Pseudopanax crassifolius*

Photographer: Wayne Bennett

Pteridium esculentum

Common Name(s):

bracken, rarauhe, bracken fern

Current Threat Status (2012):

Not Threatened

Distribution:

Indigenous: New Zealand: Kermadec (Raoul Island only), North, South, Stewart, Chatham and Antipodes Islands. Also South East Asia, Australia, Lord Howe, Norfolk Islands extending into western Oceania.

Habitat:

Common in mainly seral habitats from the coast to the low alpine zone.

Features*:

Fern with deeply rooted, subterranean rhizomes. Stipes and rachis chestnut brown at base, yellow-brown to russet at apex, woody, grooved, smooth, bearing sparse non-glandular hairs or ± glabrous stipe 0.2-1.3(-2.0) m or more long, 3-8(-15) mm diameter, woody. Lamina broadly elliptic or broadly ovate, 0.25-1.5-1.8 × 0.2-1.0-1.4 m wide, 3-4-pinnate at base, dark green (often glaucescent) above, paler beneath, adaxially glabrous, abaxially with sparse red-brown hairs on midribs and dense colourless appressed non-glandular hairs along veins. Longest pinnae arising at narrow angles; longest 150-650 × 80-400 mm. Secondary pinnae arising at narrow angles; longest 50-260 × 15-130 mm; basal one often much-reduced; midribs of primary and secondary pinnae narrowly winged. Tertiary pinnae decreasing markedly in length along secondary pinnae; longest 7-70 × 2-20 mm, with winged midribs. Quaternary pinnae to 12 × 4 mm; ultimate pinnules linear, straight, acute, entire, adnate and decurrent on 1 side. Sori continuous along pinna margin. Indusium > 0.2 mm wide, membranous, entire, glabrous. Spores dark yellow to orange yellow., granulose.

Flowering:

None (spore bearing)

Fruiting:

None (spore bearing)

Threats:

Not Threatened.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 11 January 2011. Description adapted from Brownsey (1998) and Brownsey & Smith-Dodsworth (2000).

References and further reading:

Brownsey, P.J. 1998: Dennstaedtiaceae: Flora of Australia 48: 214-228.

Brownsey, P.J.; Smith-Dodsworth, J.C. 2000: New Zealand Ferns and Allied Plants. Auckland, David Bateman

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2230



Caption: Awhitu Regional Park, Auckland region

Photographer: John Sawyer



Caption: Mt Karioi, south of Raglan

Photographer: John Sawyer