Sub Antarctic Garden Invercargill museum

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Made on the New Zealand Plant Conservation Network website – www.nzpcn.org.nz

Introduction

This book was compiled from information stored on the website of the New Zealand Plant Conservation Network (www.nzpcn.org.nz).

This website was established in 2003 as a repository for information about New Zealand's threatened vascular plants. Since then it has grown into a national database of information about all plants in the New Zealand botanic region including both native and naturalised vascular plants, threatened mosses, liverworts and fungi.

Funding to develop the website was provided by the New Zealand Government's Terrestrial and Freshwater Biodiversity Information System Programme (TFBIS).

The species information used on the website has come from a variety of sources. The indigenous vascular plant text was written largely by Dr Peter de Lange (former Network Vice President). Peter based the descriptions on a wide range of sources including the Flora of NZ Series (Allan 1961, Moore and Edgar 1970 and Webb et al 1987) as well as numerous other taxonomic treatments. For a full bibliography of information sources see the References at the end of this book.

Where no published treatment was available Peter used herbarium specimens and his own knowledge of the flora to prepare species pages. Various other contributors have provided text and additional information to many species pages including botanists such as Mike Thorsen, John Barkla, Cathy Jones, Simon Walls, Nick Singers and many others. The threatened fungi text was written by Eric Mackenzie and Peter Buchanan (Landcare Research).

More than 200 photographers have kindly provided images to illustrate the website and for use in this book especially John Smith-Dodsworth, Jeremy Rolfe, Peter de Lange, Wayne Bennett and Gillian Crowcroft.

The New Zealand Botanic Region

The information on the Network website, from which this book was compiled, is for species that are indigenous to or naturalised within the New Zealand Botanic Region as defined by Allan (1961). The New Zealand botanic region encompases the Kermadec, Manawatawhi/Three Kings, North, South, Stewart Island/Rakiura, Chatham, Antipodes, Bounties, Snares, Auckland Campbell island/Motu Ihupuku and Macquarie.

About the Network

The Network has more than 800 members worldwide and is New Zealand's largest non-governmental organisation solely devoted to the protection and restoration of New Zealand's indigenous plant life.

The vision of the New Zealand Plant Conservation Network is that '*no indigenous species of plant will become extinct nor be placed at risk of extinction as a result of human action or indifference, and that the rich, diverse and unique plant life of New Zealand will be recognised, cherished and restored*'.

Since it was founded in 2003 the Network has undertaken a range of conservation initiatives in order to achieve its vision.

That work has included:

- Training people in plant conservation
- Publishing plant books, reports and posters
- Raising money for the David Given Threatened Plant Research Trust to pay for plant conservation research scholarships
- Advocacy to raise awareness of the importance of plant life in general and especially New Zealand's status as a Global Centre of Plant Diversity
- Lobbying central and regional government and business to protect indigenous plant life
- Educating people about plant life through the Network website
- Connecting people through the monthly newsletter, the Network conference and the annual general meeting

What is a threatened plant?

The NZ Threatened Plant Committee was formed in 1991 and ever since then it has met at regular intervals to review the status of indigenous vascular plants. It is made up of a small group of botanists that between them have an extensive knowledge of the native plants of New Zealand. This group is chaired by Dr Peter de Lange of the New Zealand Department of Conservation.

This committee applies a set of criteria to each native plant to determine its conservation status. The resulting list of species classified as threatened is published in the NZ Journal of Botany (see for example de Lange et al. 2009). The main threat categories used are: Extinct, Critical, Endangered, Vulnerable, Declining. Other categories used are: Recovering, Relict, Naturally Uncommon, Coloniser, Vagrant and Data Deficient. For vascular plants the threat status used in this book is taken from the 2009 conservation assessment (see de Lange et al 2009).

More recently other committees have been established to review the status of non-vascular plants but their lists are yet to be published.

Acaena minor var. antarctica

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. Antipodes and Macquarie Islands

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=2316

Caption: Enderby Island
Photographer: Jane Gosden

Caption: Enderby Island
Photographer: Jane Gosden

Anaphalioides bellidioides

Common Name(s):
Hells Bells

Current Threat Status (2012):
Non Threatened

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1493

Caption: Landsborough
Photographer: Jane Gosden

Caption: Landsborough
Photographer: Jane Gosden

Anisotome latifolia

Caption: Enderby Island
Photographer: Jane Gosden

Caption: Enderby Island
Photographer: Jane Gosden

Common Name(s):
None known

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. Auckland and Campbell Islands.

Habitat:
Coastal to montane on peaty ground amongst boulders, tussocks and other megaherbs, more rarely under scrub and low forest. Most abundant at lower alitudes.

Features:
Robust perennial herb reaching up to 2 m tall. Basal leaves firmly coriaceous, ovate 0.3-0.6 x 0.1-02 m; 2-pinnate, leaflets in 5-7 pairs, dark green to yellow-green, ovate to lanceolate, shortly petiolulate or sessile;leaflet margins cartilaginous, pinnatifid or deeply incised into broad toothed or incised segments; teeth acute, piliferous with hairs 2.0-3.5 mm long; petioles 0.15-0.3m x 7.0-15.0 mm, subterete, with a central ridge on the somewhat flattened adaxial surface; sheaths 50-80 x 35-50 mm, prolonged at the apex into two broad lobes free from the petioles by 2-3 mm; cauline leaf sheaths markedly inflated; peduncles 20-150 mm long. Inflorescence axis up to 2 m by 10-15 mm diameter at first node. Flowers off white to pale creamy pink. Staminate flowers held within an involucre of linear to lanceolate bracts 5-15 x 1-2 mm; involucel of several linear to lanceolate bracteoles 3.0-7.0 x 0.5-1.5 mm; rays 20-40, 5-20 mm long; pedicels 20-40, 2-5 mm long. Pistillate flowers similar, involucre bracts linear to broadly lanceolate, 10-35 x 1-5 mm, involucel bracteoles linear to lanceolate 2.0-10.0 x 0.5-2.0 mm, rays 20-40, 10-35 mm long, pedicels 15-30, 1-5 mm long; styles slender, 1-2 mm long, divergent. Mericarp elliptic, elliptic-ovate, elliptic-oblong or narrowly elliptic, 3.5-5.5-7.0 mm long; apex usually slightly narrowed and obtuse, sometimes rounded, base obtuse to truncate; 2-5-ribbed; ribs usually even, sometimes irregular, equal thin, finely winged with a narrow hyaline margin. Surface dull; ribs yellow, dark yellow or orange; vittae usually obscured in mature mericarps, if visible dark red-brown.

Flowering:
October - February

Fruiting:
January - March

Threats:
Not Threatened. Listed because it is naturally confined to a small geographic area. It is abundant on Campbell and common on those islands of the Auckland group free of browsing animals.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=365

Anisotome lyallii

Caption: Flowers in the Catlins
Photographer: John Barkla

Caption: In the Catlins
Photographer: John Barkla

Common Name(s):
Lyalls carrot

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. South, Stewart, and Solander Islands. Present along the Fiordland coast from Jacksons Bay to Puysegur Point. Also found from Nugget Point to South Head. On Stewart Island known from western and southern coastline. Common on Stewart Island.

Habitat:
Coastal. On steep, south facing, sparsely vegetated cliffs, and in coastal turf, herbfield and on damp peaty ledges. Sometimes in coastal grassland, on boulder falls and even on sand dunes and beaches. In all its habitats it always found near the sea often within the spray zone.

Features:
Perennial herb up to 0.8 m tall. Basal leaves on petioles 10-150 × 15-100 mm; sheaths 3-130 × 15-40 mm (sheaths of cauline leaves inflated); lamina oblanceolate to oblong, 0.10-0.45 × 0.02-0.13 m, 2-3-pinnate; primary leaflets 5-10 pairs, rhomboid, deltoid to ovate, shortly petiolate, coriaceous; secondary leaflets spathulate to rhomboid, sometimes ovate; leaflet margins not thickened, often pinnatifid, rarely deeply incised into broad or narrow, toothed segments; teeth obtuse to acute, not piliferous. Inflorescence up to 0.9 m tall and 10 mm diameter at the first node; peduncles 20-150 mm long. Flowers dirty white to white. Staminate plants – involucre comprising several linear to lanceolate bracts, 4-18 × 0.5-2.5 mm; involucel of several linear bracteoles 2-10 × 0.25-1 mm; rays 10-35, 5-25 mm long; pedicels 10-30, 1-5 mm long. Carpellate plants – involucre of several linear to lanceolate bracts 5-25 × 0.5-5 mm, the bracts sometimes bearing reduced blade at the tip; involucel of several linear bracteoles 2-10 × 0.5-1.5 mm; rays 4-30, 5-30 mm long; pedicels 5-25, 1-7 mm long; styles slender, 1-2 mm long, divergent to divaricate. Mericarps narrowly elliptic to elliptic, ovate or elliptic-ovate, 4.0-7.5 mm long; apex usually slightly narrowed; base obtuse to truncate; 5-ribbed, ribs even, equal, thin, narrowly winged, opaque or translucent at margin. Surface dull, ribs orange, orange-brown or dark brown, vittae visible or partially obscured, red-brown or dark brown.

Flowering:
November - January

Fruiting:
January - March

Threats:
Probably not threatened, although accessiblel populations in Fiordland and on Stewart Island are probably deer browsed. It is very common on Solander Island and occurs in reasonable numbers in the south-eastern part of the South Island. Nevertheless because this species is being browsed by deer it is probably incorrectly listed and its conservation status will need to be reassessed.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=366

Bulbinella rossii

Caption: Enderby Island
Photographer: Jane Gosden

Caption: Enderby Island
Photographer: Jane Gosden

Common Name(s):
Ross Lily

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. Auckland and Campbell Islands

Habitat:
Widespread and common from sea level to the tops of island ranges. Flourishes in disturbed sites, and so common near old habitations and because it is not especially palatable, where browsing animals congregate. prefers open herbfield and tussock grassland, where it may form dense colonies.

Features*:
Dioecious, stout, perennial lily up to 1 m tall and 40 mm diameter at the base. Leaves fleshy, 0.6-1m x 15-60 mm wide, dark green, obtuse to subacute, apices recurved, nerves faint to prominent, easily felt when fresh. Peduncle up to 10 mm diameter, usually < leaf length. Inflorescence a cylindric raceme up to 150 x 600 mm; bracts and pedicels of almost equal length in female flowers and conspicuous in bud; in males < pedicels and inconspicuous in bud; pedicels 10-20 mm long, swollen just below flower. Flowers numerous, densely crowded, 10-14 mm diameter, golden yellow to sulphur yellow, often faintly tinged with orange; tepals oblong-ovate, spreading in males in females erect and remaining so, usually hardening as fruit ripens. Stamens < tepals; anthers in males conspicuously filled with pollen, in females rudimentary. Ovary 2 mm long, broad right to base. Capsule 10 mm long, broadly ovoid, gynophore absent. Seeds 4-6 mm long, dark brown to black, narrowly winged.

Flowering:
October - January

Fruiting:
December - March

Threats:
Not Threatened. Listed only because with respect to the rest of the New Zealand archipelago it occupies a small geographic area

***Attribution:**
Description modified by Peter de Lange from Moore and Edgar (1970)

References and further reading:
Moore, L.B.; Edgar, E. 1970: Flora of New Zealand. Vol. I. Government Printer, Wellington. 354pp.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=383

Carex secta

Caption: Carex secta
Photographer: Wayne Bennett

Caption: Carex secta (Purei)
Photographer: Wayne Bennett

Common Name(s):
Pukio, Niggerhead

Current Threat Status (2012):
Non 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.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1418

Carex trifida

Common Name(s):
Mutton-bird Sedge, Tataki

Current Threat Status (2012):
Non Threatened

Distribution:
Indigenous. New Zealand, southern South Island, Stephens, Stewart, Chatham, Snares, Antipodes, Auckland, Campbell Islands. Also present on Macquarie Island, in southern South America and the Falkland Islands.

Habitat:
Strictly coastal where it often associated with seal haul outs and sea bird nesting grounds, especially - as the common name suggests - muttonbirds (Puffinus spp.). Usually in open sites, very rarely found in canopy gaps within coastal forest.

Features*:
Extremely robust, compact, light green to glaucous sedge, producing tussocks up to 1 m diameter. Culms 0.15–1.00 m tall, 2–4 mm diameter, trigonous with angles rounded, glabrous; basal sheaths cream, grey, or yellow-brown. Leaves often overtopping the inflorescence, 6–15 mm wide, light green to dark glaucous green, double-folded, with keel not very much thickened, rather soft and spreading, margins slightly scabrid with rather distant teeth; sheath only slightly broader than lamina, paler green. Spikes 6–15, brown, very sturdy, 35–11 x 5–15 mm; upper 2–4 spikes male, occasionally with a few female flowers intermingled, ± approximate, ± sessile; lower spikes female, the lowest often compound, on stout erect peduncles; bracts leaf-like, > inflorescence. Glumes > utricles, linear-oblong, or lanceolate, noticeably emarginate, membranous, chestnut-brown, the pale greenish brown midrib produced to a very long hispid awn. Utricles 4.5–6.0 x c.2.0 mm., subtrigonous, oblong-obovoid, turgid, distinctly nerved, straw-coloured to light brown tinged; abruptly narrowed to a rather shallowly bifid beak c.1 mm long, margins and orifice occasionally slightly scabrid; much contracted to a very pale brown stipe c.1 mm long. Stigmas 3. Nut c. 2 mm. long, trigonous, oblong-obovoid, dark brown.

Caption: Chatham Islands, Te Whakaru
Photographer: Peter de Lange

Caption: Chatham Islands, Te Whakaru
Photographer: Peter de Lange

Flowering:
August - December

Fruiting:
November - June

Threats:
Not Threatened - but very uncommon in the northern part of its range

***Attribution:**
Description adapted by Peter de Lange from Moore and Edgar (1970)

References and further reading:
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=1425

Chionochloa antarctica

Caption: Campbell Island
Photographer: John Barkla

Caption: Campbell Island
Photographer: John Barkla

Common Name(s):
Snow Tussock

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. New Zealand: Auckland and Campbell Islands.

Habitat:
Dominant of tussock grassland across islands. Also in cushion bogs

Features*:
Tall, slender, often peat-stained, pale tussock with pungent leaves often spirally twisting above and deciduous. Leaf-sheath to 200 mm, dark above, pale shining below, persistent, glabrous though often with many very short hairs between ribs. Ligule to 2 mm. Leaf-blades to 30 0 × 6 mm, flat or U-shaped, disarticulating at ligule, abaxially many glabrous ribs, adaxially below with interlocking hairs from near margins, abundant papillae above; margin glabrous. Culm to 1 m, internodes glabrous. Inflorescence to 150 mm, congested, ± triangular, glabrous except for long hairs at branch axils and below spikelets. Spikelets of up to 7 lightly purpled florets. Glumes sometimes purpled, acute or shortly awned, < adjacent lemma lobes; lower to 12 mm, 1-nerved or shortly 3-nerved, upper to 15 mm, 3-5-nerved, margin consistently long hairy below otherwise glabrous. Lemma to 8 mm; hairs dense at margin and aside central nerve, sometimes in other internerves but then fewer, ± reaching sinus; lateral lobes to 7 mm including awn to 3 mm or long triangular-acute; central awn to 20 mm reflexed from flat column up to 3 mm. Palea to 10 mm. Callus to 1 mm, hairs to 3 mm. Rachilla to 1 mm. Lodicules to 0.75 mm. Anthers to 3.5 mm. Ovary to 0.75 mm; stigma-styles to 4 mm. Seed to 2.5 mm

Flowering:
October - December

Fruiting:
November - March

Threats:
Not Threatened. Widespread and common within its island habitats. Listed only because by world standards it is a naturally uncommon plant biologically limited only by the extent of area it can occupy

***Attribution:**
Description modified from Edgar and Connor (2000).

References and further reading:
Edgar, E.; Connor, H.E. 2000: Flora of New Zealand. Vol. V. Grasses. Christchurch, Manaaki Whenua Press. 650 pp.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=437

Coprosma chathamica

Common Name(s):
Chatham Island karamu, karamu

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. Chatham Islands group: Rekohu (Chatham Island), Rangiauria (Pitt Island) and Rangatira (South-east Island)

Habitat:
Coastal and inland forest. Mostly on peat and usually in sites that are at least temporarily waterlogged but also on limestone, schist and basalt outcrops in free draining situations. An important canopy tree which co-associates with matipo (Myrsine chathamica) on free draining soils, and swamp akeake (Olearia telmatica) in the waterlogged soils in the lowlands to form one of the main forest types. It is also prominent with tarahinau (Dracophyllum arboreum) in the southern tablelands forests, and less frequently with akeake (Olearia traversiorum) in dune forest and overlying basalt or schist.

Features*:
Tree up to 15 m tall; trunk up to c.600 mm diameter; branches and branchlets rather stout, densely pubescent when young. Leaves on short 8-10 mm long fleshy-coriaceous petioles. Stipules triangular, pubescent, densely ciliate; apical denticle prominent black, surrounded on either side by 2-4 smaller denticles. Lamina of juvenile leaves subcoriaceous, 45-75 × 20-45 mm, dark green to green, broadly ovate to ovate-oblong, obtuse, mucronulate, base cuneately narrowed, margins often hairy; adult lamina 20-35 × 15-30 mm, dark green and rather glossy above, paler below, ovate to ovate-oblong, elliptic to oblong-elliptic, obtuse, mucronulate, base cuneately narrowed, margins slightly recurved, entire to distinctly undulose. Reticulated veins not or scarce evident above, evident below. Male flowers solitary or in clusters of up to 6 on shortly branched axillary peduncles; calyx 0 or vestigial; corolla funnelform, lobes 5, acuminate, > tube. Female flowers 1-6 together; calyx-teeth short, ciliolate; corolla tubular, lobes ovate, acute, > tube. Drupe yellow-red to orange, obovoid, slightly compressed to subdidymous, c.9-12 × 9-14 mm.

Caption: Bark. Te Henga, Chatham Island. May 2013.
Photographer: Jeremy Rolfe

Caption: Chatham Islands
Photographer: John Sawyer

Flowering:
August - December

Fruiting:
November - May

Threats:
An Island endemic that is not really threatened. One of the major forest trees on the Chatham Islands.

***Attribution:**
Description based on Allan (1961) and supplemented with additional measurements and observations taken from herbarium specimens and wild plants.

References and further reading:
Allan, H.H. 1961: Flora of New Zealand. Vol. I, Government Printer, Wellington

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1704

Coprosma ciliata

Current Threat Status (2012):
Not Threatened

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1706

Caption: Coprosma ciliata
Photographer: John Barkla

Caption: Coprosma ciliata
Photographer: Graham Jane

Coprosma perpusilla subsp. subantarctica

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Indigenous. Subantarctic Islands south of New Zealand, including Macquarie (all part of the New Zealand Botanical Region). However, Macquarie is geopolitically part of Australia

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=2091

Caption: Auckland Island
Photographer: Jane Gosden

Caption: Auckland Island
Photographer: Jane Gosden

Coprosma rugosa

Current Threat Status (2012):
Non Threatened

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1736

Caption: Coprosma rugosa
Photographer: Sandra Wotherspoon

Caption: Coprosma rugosa
Photographer: John Barkla

Dracophyllum scoparium

Common Name(s):
None known

Current Threat Status (2012):
Naturally Uncommon

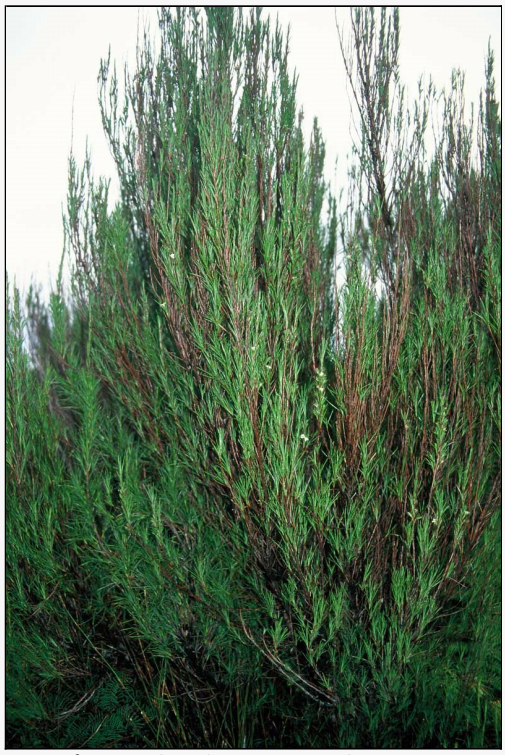
Distribution:
Endemic. New Zealand: Chatham (Rekohu (Chatham Island)) Island and Campbell Islands. Dracophyllum scoparium has been reported from Rangiauria (Pitt Island) (Venter 2009) but there do not seem to be substantiating herbarium specimens. Only tarahinau (Dracophyllum arboreum) seems to grow there, and it is possible that past records of D. scoparium may result from Rangiauria may stem from confusing young shrubs of tarahinau with that species.

Habitat:
The dominant woody shrub of Chatham Island restiad bogs and Campbell Island vegetation - where it has a wider range.

Features*:
Erect multi–stemmed shrub to small tree, 1–4 m tall. Bark on old branches dark brown to blackish brown, finely fissured, young stems reddish brown. Leaves erect to spreading; lamina sheath 2.0–5.0 × 1.5–4.0 mm, shoulders tapering to truncate and margins membranous and ciliate; lamina 24.0–80.0 × 0.3–1.5 mm, linear to linear–subulate, adaxial surface pubescent, slightly striated; margins ciliate to densely pubescent with 100–120 teeth per 10 mm; apex triquetrous. Inflorescence a terminal spike on lateral branches; shorter than leaves, erect, dense, 13–20 mm long, oblong; inflorescence bract over-topping flower, 1.8–2.0 × 0.9–1.0 mm, ovate–lanceolate at base, adaxial surface glabrous, pubescent at apex; abaxial surface pubescent at base; margins ciliate. Flowers 3–6, sessile. Flower bracts over-topping flowers, 5.0–9.5 × 2.5–4.0 mm, broadly ovate, adaxial surfaces pubescent; margins ciliate. Sepals 2.5–5.0 × 1.5–3.5 mm, oblong, equaling to longer than corolla tube, striate, surfaces glabrous with the top half pubescent; margins ciliate; apices acute to acuminate. Corolla white (rarely pink or cream); corolla tube 3.0–3.5 × 1.3–1.5 mm, cylindrical; corolla lobes reflexed, 1.7–2.5 × 1.2–2.0 mm, triangular, shorter than corolla tube, apex inflexed and acute; adaxial surface papillate. Stamens inserted on corolla tube in the upper third, filaments 0.3–0.5 mm long; anthers included, rectangular, light yellow and 0.9–1.0 mm long. Ovary 0.8–1.0 × 0.9–1.0 mm, obovate, apex round; nectary scales 0.6–0.7 × 0.5–0.6 mm, rectangular, apices subacute to obtuse; style included, 0.95–1.0 mm long, glabrous, not lengthening in fruit; stigma five–lobed. Fruit 1.8–2.0 × 2.1–2.5 mm, obovoid, light brown, apex round, glabrous. Seeds 0.7–0.8 mm long ovoid, light brown, testa slightly reticulate.

Flowering:
Throughout the year

Fruiting:
Throughout the year



Caption: Clearing near Lake Rakeinui, Chatham Islands
Photographer: Peter de Lange

Caption: Ocean Mail, Chatham Islands
Photographer: John Sawyer

Threats:
Abundant within its known habitats, and hardly at risk. Often regenerates profusely following fire on the main Chatham Island

***Attribution:**
Fact sheet prepared for NZPCN b P.J. de Lange (8 June 2012). Description adapted from Venter (2009)

References and further reading:
Venter, S. 2009: A taxonomic revision of the genus *Dracophyllum* Labill. (Ericaceae). Unpublished Phd Thesis, Victoria University of Wellington, Wellington.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1816

Hebe benthamii

Caption: Campbell Island
Photographer: John Barkla

Common Name(s):
Benthams Hebe

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. New Zealand: Auckland and Campbell Islands

Habitat:
Coastal to montane. Usually on peat amongst Chionochloa antarctica (Hoof.) Zotov tussocks and shield fern (Polystichum vestitium (G Forst.) C.Presl). Sometimes grows around boulder and rock outcrops.

Features*:
Bushy or spreading shrub up to 1 × 1 m. branches decumbent or ascending; branchlets pubescent or glabrous, if hairy then hairs white, bifarious or occasionally uniform; internodes 1.0-13.0-15.6 mm; leaves abscising at nodes. Leaf bid obscured by surrounding leaves, leaves usually overtopping bud. Leaves connate, erecto-patent to reflexed; lamina elliptic or obovate, coriaceous, flat, 10.0-33.0 × 3.5-14.5 mm; apex obtuse or truncate; midrib thickened below and depressed above; margin conspicuously puberulent, shallowly to deeply toothed; upper surface green, glabrous to hairy along midrib or hairy toward base. Inflorescences 11-30-flowered, mostly terminal, unbranched or with 3 or more branches (up to 4 lateral branches but never compound branching); peduncle 8-19 mm; rachis 16-93 mm. Bracts opposite and decussate, mostly free rarely connate, usually obovate sometimes elliptic, apex surmounted with a prominent gland, obtuse or subacute, occasionally emarginate. Flowers blue on pedicels 1-4 mm long, these hairy or glabrous. Calyx 3.0-8.5 mm, 4-6-lobed; lobes oblong or obovate, obtuse or subacute with a prominent apical gland, eglandular ciliate (hairs white, long and tangled), glabrous externally, hairy inside. Corolla tube 2.0-3.2 × 3.5-3.9 mm, cylindric, somewhat dorso-ventrally compressed, glabrous, < calyx; lobes 4-6, sky-blue or violet at anthesis, darkening to blue with age, obovate to circular, obtuse (posterior occasionally emarginate), erect to patent, > corolla tube; corolla throat blue or white. Stamen filaments blue, erect, 1.0-1.5 mm; anthers blue, 1.2-1.6 mm. Ovary 1.8-2.3 mm, 2-3-locular; style 2.1-3.2 mm. Capsules latiseptate (2-locular) or turgid (3-locular), subacute, 4.5-6.0 mm, hairy, septicidal splits sometimes extending only ¾-way to base, loculicidal split extending ¼-¾-way to base (usually < ½-way). Seeds 1.2-1.9 × 1.3-1.6 mm, straw-yellow or dark brown, strongly flattened, broad ellipsoid to discoid, winged.

Flowering:
October - May

Fruiting:
November - October

Threats:
A Naturally Uncommon, Range-Restricted endemic abundant within its known habitats which are part of Nature Reserves and World Heritage Sites whose access requires permits issued by the New Zealand Department of Conservation. There are no known threats to this species

***Attribution:**
Description modified from Bayley and Kellow (2006)

References and further reading:
Bayly, M.; Kellow, A. 2006: An illustrated guide to New Zealand Hebes. Te Papa Press, Wellington.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=519

Lobelia arenaria

Common Name(s):
Sand Lobelia

Current Threat Status (2012):
Naturally Uncommon

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1190

Caption: Enderby Island
Photographer: Jane Gosden

Caption: Ocean Mail, Chatham Islands
Photographer: John Sawyer

Metrosideros umbellata

Common Name(s):
Southern rata

Current Threat Status (2012):
Not Threatened

Distribution:
Endemic. North, South, Stewart and Auckland Islands. In the North Island locally present from Te Paki south to Mt Pirongia, the northern Kaimai Ranges (Ngatamahinerua) and Mt Manuoha (Te Urewera National Park). In the South Island from Durville Island south and to Fiordland, with a mainly westerly distribution (absent from Marlbrough), most of Canterbury and northern Otago. Common on Stewart and the Auckland Islands.

Threats:
Not Threatened. However, rather uncommon in the North Island, and at some sites it is locally threatened by possum browse.

References and further reading:

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

de Lange, P.J. 1994. Southern rata *Metrosideros umbellata* confirmed from Mt Pirongia Western Waikato. Auckland Botanical Society Journal, 49: 57-59.

Druce, A.P. 1959. Southern rata in the Tararuas. Wellington Botanical Society Bulletin, 31: 12-15

Gardner, R.C.; de Lange, P.J.; Bowala, T.; Brown. H.A.; Keeling, J.; Wright, S.D. 2004: A Quaternary phylogeography for New Zealand inferred from chloroplast DNA haplotypes in *Metrosideros* (Myrtaceae). *Biological Journal of the Linnean Society 83*: 399-412.

Caption: Bark detail, Travers Valley, Nelson Lakes National Park
Photographer: John Sawyer

Caption: Flowering tree, Travers Valley, Nelson Lakes National Park
Photographer: John Sawyer

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=978

Myosotis capitata

Current Threat Status (2012):
Naturally Uncommon

Habitat:
Found from sea level to 600 m a.s.l. in rocky places such as cliff faces, boulderfield and rock strewn ground, growing on thin peat soils and rock saprolite.

Features*:
Perennial rosette-forming herb. Rosette usually single, sometimes several and so appearing tufted; rosette lamina linear-oblong to spathulate, 30-120 × 10-25 mm, apex rounded, ± mucronate, petiole very wide and ill-defined; lamina densely clad in long, silky hairs, spreading, upper surface hairs numerous, hairs of leaf undersides shorter and sparser, tending toward glabrescent or glabrate. Lateral branches erect, few to many, occasionally branched, 50-300 mm long, internodes < leaves. Stem-leaves many, ± recurved, upper ones sessile and oblong, up to 40 mm long, tip rounded and mucronate; hairs long, fine, spreading, crowded, especially on upper surface. Cymes ebracteate, except for an occasional leaf near base, 8-flowered, short and usually branched; internodes between fruits usually much < calyx except towards base; pedicels very short. Calyx 3-5 mm long, lobes > 1/2 length, rather broad, obtuse, nerve rather strong, hairs numerous, not hooked, silky, mostly long. Corolla deep blue, 4-8 mm diameter, tube 3-5 mm, cylindric, lobes broadly rounded (e.g. 2.0 × 2.5 mm.) and flat; filaments very short, anthers up to 1 mm long, acute, tips reaching to or just beyond scales; style > calyx in fruit, stigma capitate. Nutlets 1.2-2.5 × 1.2-1.5 mm, black, acute, keeled on inner face.


Caption: In cultivation
Photographer: John Barkla


Caption: In cultivation
Photographer: John Barkla

Flowering:
November to February

Fruiting:
December to February

Threats:
Not threatened. Listed because it is a narrow range endemic of the Auckland and Campbell Islands. Some past reports suggest it is becoming less common on Campbell Island but these observations are countered by other reports suggesting that while sparsely distributed it is still common there. It is for this reason this species has been qualified Data Poor (DP).

***Attribution:**
Description based on: Allan, H.H. 1961: Flora of New Zealand. Vol. I. Goverment Printer, Wellington.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=591

Olearia lyallii

Common Name(s):
Subantarctic tree daisy

Current Threat Status (2012):
Naturally Uncommon

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1053

Caption: Snares
Photographer: Jacqueline beggs

Ozothamnus vauvilliersii

Common Name(s):
Mountain tauhinu

Current Threat Status (2012):
Not Threatened

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=1606

Caption: Ozothamnus vauvilliersii
Photographer: John Barkla

Caption: Ozothamnus
Photographer: John Barkla

Poa foliosa

Caption: Enderby Island
Photographer: Jane Gosden

Caption: Enderby Island
Photographer: Jane Gosden

Common Name(s):
Muttonbird Poa

Current Threat Status (2012):
Naturally Uncommon

Distribution:
Endemic. New Zealand: Stewart (north-eastern Titi Islands), Solander,, Antipodes, Auckland, Campbell, and Macquarie (Australian Territory but part of the New Zealand Botanical region)

Habitat:
Coastal, usually near sea bird nesting grounds, often on steep slopes, sometimes in turf near shore.

Features*:
Dioecious, robust, green tussocks up to 1.5 m tall, arising from short, narrow, woody stolons, with shoots covered at base by abundant fibrous remnants of sheaths. Branching extravaginal; leaf-blades persistent. Leaf-sheath light brown, coriaceous, glabrous, closely striate, keel prominent above. Ligule 1-3 mm, apically glabrous, entire, rounded, abaxially finely scabrid. Leaf-blade 150-500 x 1-6 mm, coriaceous, tough, flat, abaxially smooth with prominent midrib and many lateral ribs, adaxially short-scabrid, bearing two prominent ridges along centre; margins thickened, smooth, tip entire, smooth, semi-pungent. Culm 200-600 mm, internodes glabrous. Panicle 100-250 mm, dense, with all branches, except the longer ones, bearing spikelets almost to base; rachis and branches mostly smooth. Spikelets 5.5-9.0 mm, 3-6-flowered, light greenish brown. Glumes subequal, long-acuminate, membranous, except for thickened nerves, smooth, but with a few prickle-teeth on nerves above and occasionally on margins; lower 3-6 mm, 1-3-nerved, narrow-lanceolate, upper 4.0-6.5 mm, 3-nerved, narrow elliptic-lanceolate. Lemma 5-7 mm, 5-nerved, acute or with midnerve very shortly excurrent, scabrid except near base, midnerve ciliate to more than halfway, outer lateral nerves, internerves, and margins with minute hairs in lower 1/3. Palea 3.5-4.5 mm, keel rather densely ciliate-scabrid, interkeel and flanks with sparse minute hairs and prickle-teeth. Callus with large tuft of crinkled hairs just below midnerve of lemma. Rachilla c.0.5 mm, glabrous. Lodicules 0.4-0.7 mm, rarely hair-tipped. Dioecious: male with anthers 2.0-3.3 mm, gynoecium 0; female with pollen-sterile anthers c.0.6-1.0 mm, often on long filaments; stigma-styles c.2 mm; seed 2 mm; rarely perfect.

Flowering:
October - December

Fruiting:
November - April

Threats:
Not Threatened. Listed because it is a narrow range, offshore island endemic. It is abundant in its known locations with no obvious threats.

***Attribution:**
Description modified from Edgar and Connor (2000).

References and further reading:
Edgar, E.; Connor, H.E. 2000: Flora of New Zealand. Vol. V. Grasses. Christchurch, Manaaki Whenua Press. 650 pp.

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=637

Poa litorosa

Current Threat Status (2012):
Not Threatened

Threats:
Not Threatened

For more information, visit:
http://nzpcn.org.nz/flora_details.asp?ID=2222

Caption: Campbell Island
Photographer: John Barkla

Caption: Enderby Island
Photographer: Jane Gosden