



Auckland's threatened plants Vol. IV

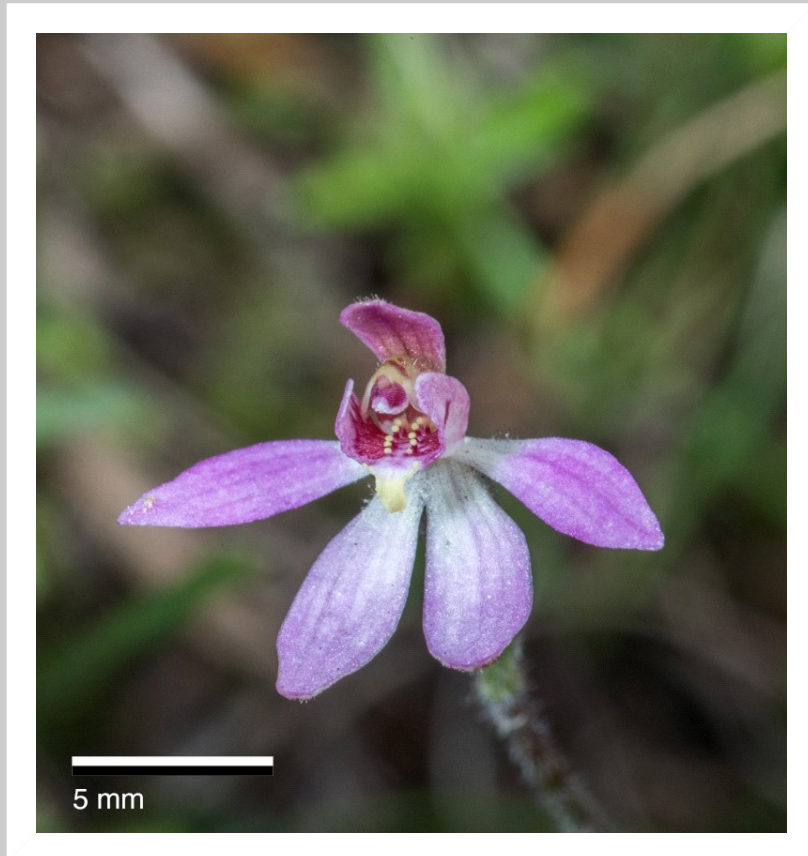


Table of Contents

Introduction	1
<i>Halocarpus kirkii</i>	2
<i>Hoheria equitum</i>	3
<i>Homalanthus polyandrus</i>	4
<i>Hymenophyllum australe</i>	5
<i>Hypolepis dicksonioides</i>	6
<i>Jovellana sinclairii</i>	7
<i>Korthalsella salicornioides</i>	8
<i>Kunzea amathicola</i>	9
<i>Kunzea linearis</i>	10
<i>Kunzea sinclairii</i>	11
<i>Kunzea triregensis</i>	12
<i>Lagenophora lanata</i>	13
<i>Lepidosperma neozelandicum</i>	14
<i>Leptinella dispersa</i> subsp. <i>dispersa</i>	15
<i>Leptinella minor</i>	16
<i>Leptinella tenella</i>	17
<i>Libocedrus plumosa</i>	18
<i>Lindsaea viridis</i>	19
<i>Lobelia physaloides</i>	20
<i>Mazus novaezeelandiae</i> subsp. <i>novaezeelandiae</i>	21

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

Copyright

All images used in this book remain copyright of the named photographer. Any reproduction, retransmission, republication, or other use of all or part of this book is expressly prohibited, unless prior written permission has been granted by the New Zealand Plant Conservation Network (info@nzpcn.org.nz). All other rights reserved.

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 encompasses 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.

Halocarpus kirkii

Common Name(s):

monoao

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. New Zealand, North and Great Barrier Islands, from Te Pahi (Radar and Unuwahao Bush) south to near Limestone Downs (south of Port Waikato) in the west and about the southern Kauaeranga Valley in the East

Habitat:

A northern species associated with kauri (*Agathis australis* (D. Don.) Lindl.) forest. In mature kauri forest it is most usually found in apparently even aged cohorts of 10 or less trees along ridge lines, in swampy hollows or at gully heads. This species appears to thrive on disturbance and it is at its most abundant on the margins of kauri and gumland vegetation sites originating from past fires, gum digging and/or kauri logging.

Features*:

Dioecious forest tree up to 25 m tall, trunk up to 1.5 m d.b.h., bark greyish brown to dark brown, flaking in irregular to subcircular flakes, wood pale brownish red. Branches spreading, upper most often starkly erect, surfaces often marked with scars of old appressed leaves, and often retaining a few persistent, long dead, somewhat woody leaves. Foliage markedly heteroblastic, that of seedlings, juveniles and reversion shoots on adult trees 15-50 x 1-4 mm, yellow green to green, linear, apex obtuse to acute, mucronate, coriaceous; midribs distinct; petiole 1-3 mm long, often slightly twisted; adult foliage scale-like closely quadrifurcately imbricating, 2-3 mm long, ovate-oblong to rhomboid, obtuse, faintly keeled, margin hyaline; appressed. Ultimate branchlets 1-2 mm diameter, subterete to terete, somewhat smooth. Male strobili up to 12 mm long, sessile, solitary and terminal; apiculus obtusely triangular. Branchlets bearing female cones terminal or subapical, cone scales 3-5, glaucous to green-grey, conspicuous, ovules solitary. Epimatium completely covering seed. Aril orange. Seeds 3-8 mm, lustrous black, ovoid-oblong, somewhat compressed, distinctly striate. Seeds taking two years to mature.

Flowering:

October - December

Fruiting:

December - November

Threats:

Although it was undoubtedly logged when suitable trees were found, this species appears to have never been common, and it still has a highly fragmented, sporadic distribution in what are otherwise largely intact tracts of its preferred habitat kauri (*Agathis australis*) forest today. It is the opinion of conifer experts (though studies are needed to confirm this) that this species is naturally sparse because it requires frequent disturbance to regenerate. Thus climax type forested habitats are not suitable long term habitats for this species. True or not, it is fact that it is most commonly found flourishing (i.e., with all size classes in the appropriate numbers) in secondary regrowth forest abutting older, intact, kauri dominated remnants (e.g., Radar Bush, Hirakimata (Mt Hobson)).

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 3 February 2006. Description adapted from Allan (1961), Kirk (1889) Webb & Simpson (2001), fresh material and herbarium specimens.

References and further reading:

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

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=264



Caption: Te Pahi. Sep 2011.

Photographer: Jeremy Rolfe



Caption: Juvenile (foreground) and adult (background) foliage. Te Pahi. Sep 2011.

Photographer: Jeremy Rolfe

Hoheria equitum

Common Name(s):

Poor Knights houhere

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. Poor Knights and Hen and Chicken Islands only

Habitat:

Coastal forest on offshore islands. Sometimes in petrel scrub or low windshorn forest along ridge lines.

Features*:

Evergreen tree to 8 m tall, more or less glabrous except the young shoots and flower buds which are clad in stellate hairs, bark fibrous, tough, branches slender, sucker shoots frequent. Juvenile foliage similar to adult. Leaves yellow-green, alternate, 35-150 × 15-95 mm, elliptic to broadly elliptic apex obtuse to subacuminate, acumen, where present, often obtuse; young leaves with stellate hairs on undersides, soon glabrescent; margins recurved, entire or distantly and rather obscurely serrate with blunt teeth up to 1-2 mm long, petiole 10-30 mm long, stipules linear, 3.5 × 0.5 mm. Flowers in 1-15-flowered axillary fascicles, these solitary on articulated pedicels 10-20 mm long, bearing few hairs. Flowers hermaphrodite, regular, 10-23 mm across. Epicalyx absent. Calyx rather deeply toothed, lobes 5, 2 × 2 mm, clad in sparse stellate hairs when young, without adaxial glands. Petals 5, white, obtuse, asymmetrical with a notch on one side of the apex, slightly clawed at base. Staminal column adnate to corolla, bearing c.20 stamens in 5 bundles, sparse, stiff hairs present abaxially at base of staminal tube, anthers dark red before dehiscence, fading to pale yellow. Ovary superior, 5-celled, 1.8 × 1.5 mm, with a crown of short hairs at the apex, Ovules pendulous, 1 in each cell. Style branches 5, stigma 0.5 mm wide, capitate or obliquely capitate, not decurrent. Fruit a schizocarp, separating from a central axis into 5, 1-seeded, more or less indehiscent winged Mericarps. Mericarps 4.0-4.8 mm long, semicircular, initially bright green maturing greyish, broader at base, rounded to angular otherwise, wings arising from upper 1/2 of dorsal surface, ribbed, margins irregularly toothed to somewhat smooth.

Flowering:

January - March

Fruiting:

March - May

Threats:

Abundant within its narrow geographic range

*Attribution:

Description (except for fruits) adapted from Heads (2000)

References and further reading:

Heads, M. 2000: A new species of *Hoheria* (Malvaceae) from the Poor Knights Islands and Hen and Chickens Islands, New Zealand. *New Zealand Journal of Botany*, 38: 373-377

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=548



Caption: Ex. Cult Tawhiti Rahi
Photographer: Peter de Lange



Caption: *Hoheria equitum* showing growth and flower habit
Photographer: Lisa Forester

Homalanthus polyandrus

Common Name(s):

Kermadec Poplar

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. Kermadec Island group, Raoul and Macauley Islands

Habitat:

A successional species of coastal scrub, forest and upland forest, where it usually forms the understorey or is a sporadic emergent. Sometimes, as on old slip scars, it may form the main canopy.

Features*:

Small, glabrous tree up to 10 m tall. Branches and branchlets slender, rather brittle, terete in cross-section, initially slightly ribbed, leaf-scars prominent. Leaves adaxially dark or bright-green to yellow-green above, sometimes suffused with red (especially new growth), abaxially subglaucous, membranous, stipulate, stipules } 20 mm long, caducous; juvenile lamina up to 300 mm diameter, broadly ovate, truncate or cordate at base, rarely perfoliate, adult lamina 30-200 mm diameter, usually rather broad-ovate to subrhombic, abruptly narrowed to acute or acuminate apex, cuneate to truncate at base; petioles > or } = to blade. Inflorescences terminal on new growth, racemose. Racemes slender up to 200 mm long, usually with a few solitary long-pedicellate ♂ flowers below or at base and many solitary short-pedicellate ♀ flowers above (racemes occasionally unisexual); each flower subtended by a caducous, glandular bract and 2 prominent glands at the base of the pedicel Male flowers bearing c.30-35 close-set stamens; perianth segments 1. Female flowers tri-locular with 3 styles, stigma capitate. Fruit } smooth, coriaceous, 3-angled, reddish, 10-12 mm diameter. Seed elliptic, oblong-elliptic or more irregular, terete or somewhat compressed, (2.3-)3.0 - 4.8 mm long, almost entirely covered with a yellowish aril.

Flowering:

Throughout the year

Fruiting:

Throughout the year

Threats:

Formerly seriously threatened with extinction due to feral goats and regarded as extinct on Macauley Island, this species has made a spectacular recovery following the successful goat eradication on Raoul Island (the last goat was shot there in 1986). *Homalanthus* is now widespread and no longer regarded as threatened. In 2006 it was rediscovered on Macauley Island - though whether this was the original tree seen by Cheeseman or a new arrival is unclear. The species is now listed only because it is still a naturally uncommon, range restricted endemic.

*Attribution:

For the authority citation see Mueller (1864)

References and further reading:

Gardner, R. 1999. *Homalanthus* (Euphorbiaceae) in New Zealand and its fruit. *Auckland Botanical Society Journal*, 54: 6-7

Müller Argoviensis, J. 1864 (3. September): Neue Euphorbiaceen des Herbarium Hooker in Kew, auszugsweise vorläufig mitgeteilt aus dem Manuscript für De Candolles Prodrömus. *Flora, oder Allgemeine Botanische Zeitung* 47 (28): 433.

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=549



Caption: Trunk. Macauley Island
Photographer: John Barkla



Caption: Macauley Island
Photographer: John Barkla

Hymenophyllum australe

Common Name(s):

Filmy fern

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. New Zealand, North and South Islands.

Habitat:

Hymenophyllum australe is almost and exclusively rheophytic species found in dark dripping wet overhangs and holes within the flood zone of deeply shaded or densely forested steep sided rivers, river canyons, river gorges, under and around waterfalls and in seepages along the banks of narrow streams. It is only very rarely found away from waterways.

Features*:

Inconspicuous, colonial fern of dark holes, overhangs and rock faces, usually growing in or near water. Fronds dark green to black-green. Stipes 10-60 mm, membranous, glabrous, winged almost to base; wing initially rather broad but tapering gradually from the rachis along the stipe, almost to the stipe base, wing flat, sometimes undulating, occasionally markedly crinkly (this often varying within the same plant). Frond distinctly deltoid to narrowly deltoid, 2-3-pinnate, 30-140 x 10-60 mm, very dark green to black green (sometimes purple-black). Ultimate segments linear or oblong, margins smooth. Sori terminal on ultimate segments, protruding (not sunken into lamina), solitary or paired, mainly on the primary pinna. Indusium flaps either smooth-edged or notched.

Flowering:

Not applicable - spore producing

Fruiting:

Not applicable - spore producing

Threats:

Not threatened. A naturally uncommon, biologically sparse species which may be abundant in suitable habitats and then absent from other apparently suitable sites nearby.

***Attribution:**

Fact Sheet Prepared for NZPCN by P.J. de Lange (June 2004 and updated 17 April 2011). Description adapted from Brownsey & Smith-Dodsworth (2000).

References and further reading:

Bostock, P.D.; Spokes, T.M. 1998: Hymenophyllaceae: Flora of Australia 48: 116-148.

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=271



Caption: By John Smith-Dodsworth

Photographer: John Smith-Dodsworth

Hypolepis dicksonioides

Common Name(s):

Giant hypolepis, ground fern (Norfolk Island only)

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Indigenous. Kermadec Islands (Raoul, Macauley Islands). New Zealand: Three Kings, North, South and Rekohu (Chatham Island). Known in the North Island from Te Pahi south to Wellington but mainly coastal and absent from large parts of the island (it has also been recorded as a 'weed' in Auckland, Hamilton, Tauranga and Wellington). Locally common around Geothermal areas of the Taupo Volcanic Zone. In the South Island known only from the coast north-west Nelson and northern Westland. Present on Norfolk, Samoa, Tahiti. Cook and the Marquesas islands.

Habitat:

A weedy species of coastal, lowland and geothermal habitats. Naturally short-lived, plants may appear as and when suitable habitat is generated following disturbance. As such this species has also appeared in urban situations and can from time to time be found growing in cities on rock walls, in bark gardens, or even protruding from cracks in asphalt pavements. It has also been recorded as a weed in garden centres.

Features*:

Rhizome long-creeping, (3-)4-8 mm diam., densely covered in pale brown hairs near growing apex, more scattered and becoming red-brown elsewhere, giving rise to stipes at intervals of 1.0-2.8 m. Stipes (0.15-)0.2-1.0 m long, (2-)5-15 mm diam., red-brown at base, becoming pale red-brown or yellow-brown above, bearing red-brown hairs at very base, soon replaced by colourless glandular and eglandular hairs (up to 5 mm long on uncoiling fronds); two dark, prominent, vertical bands on opposite sides of stipe. Laminae broadly ovate or elliptic (0.02-)0.035-1.35 x (0.015-)0.035-1.1 m, bipinnate at apex, 4 or 5-pinnate at base. Rachis yellow-brown at base, green at apex, bearing colourless glandular and eglandular hairs (up to 3 mm long). Primary pinnae in 15-30 pairs, opposite or subopposite, lower pair arising at 3-50° to stem; longest pair below middle, usually basal, (110-)200-700 x (70-)140-450 mm; lowest ones (50-)100-400 mm apart, middle ones 2-5 mm apart; upper ones narrowly ovate, lower ones ovate. Secondary pinnae ovate, (45-)70-300 x 30-150 mm, those on the lower pinnae decreasing markedly in length along the pinnae. Tertiary pinnae ovate, (16-)20-80 x (7-)10-35 mm, midrib winged. Quaternary pinnae narrowly ovate, 7-16 x 2-6 mm, shallowly incised on smaller specimens, divided into 4-5 pairs of ultimate segments on larger specimens. Veins reaching margin at a tooth apex, or sometimes ending just short of margin. Hairs: colourless glandular and eglandular hairs on midribs and veins of both lamina surfaces but absent from margins, 0.3-1.5 mm long. Sori on upper margin of each ultimate segment, situated at vein endings, protected by obvious reflexed flaps (green at base, membranous at apex, incised); protected from earliest stages. Spores pale brown, echinate.

Flowering:

Not applicable - spore producing

Fruiting:

Not applicable - spore producing

Threats:

Hypolepis dicksonioides is a short-lived, naturally ephemeral, opportunistic species, which requires frequent disturbance to create fresh habitats to colonise. As such it is naturally uncommon, and biologically sparse. In the main islands of New Zealand it is usually scarce. However, on the Kermadec Islands, especially Macauley Island it forms the dominant vegetation.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange (1 February 2005). Description from Brownsey & Chinnock (1984).

References and further reading:

Brownsey, P.J.; Chinnock, R.J. 1984: A Taxonomic revision of the New Zealand species of *Hypolepis*. *New Zealand Journal of Botany* 22: 43-80.

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=273



Caption: Sori. Hawera. Nov 2011.

Photographer: Colin Ogle



Caption: Pukerua Bay.

Photographer: Jeremy Rolfe

Jovellana sinclairii

Common Name(s):

NZ calceolaria

Current Threat Status (2012):

At Risk - Declining

Distribution:

Locally found from near Hicks Bay southwards.

Habitat:

Shaded coastal and lower montane streamsides, cliff seepages, or on damp sparsely vegetated ground on forest margins.

Features*:

Herbaceous, leafy, ± glandular-pubescent, perennial, forming rounded shrubs up to 1.0 × 1.8 m. Stems up to 0.8 m long, green or red, laxly branched, slender, initially sprawling, otherwise ascendant, bases becoming woody with age; upper branches numerous, slender, finely striate, often bearing minute leaflets in axils. Leaves opposite, somewhat membranous; petiole up to 8.2 × 2.3 mm, fleshy, adaxially channeled, bases sometimes pulvinate; lamina 20-80 × 20-50 mm, dark green to yellow-green above, light green or pinkish below, narrow-ovate, broad-ovate, ovate-oblong to ovate elliptic, apiculate, margins coarsely 2-3 crenate-serrate, sometimes lobed, bases broadly cuneate, cordate to weakly oblique, sometimes cordate-truncate. Inflorescences numerous, slender, terminal, paniculate, usually trichotomously branched, up to 300 mm. Pedicels slender, up to 30 mm. Calyx subcampanulate, c.2 mm, deeply cut into ovate to deltoid lobes. Corolla white to yellow-flushed, spotted purple, puberulous, divided c.one-third to half-way into 2 nearly equal concave lips 4.8-10.2 mm long. Anthers suborbicular, filaments short. Capsule obovoid, 3.8-4.2 mm long. Seed 0.35-0.60 mm, dark red-brown, ± elliptic to oblong, rarely curved.

Fruiting:

October - February

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 5 May 2011. Description adapted from Allan (1961) and updated using fresh plant material and herbarium specimens.

References and further reading:

Allan, H.H. 1961: Flora of New Zealand. Vol. I. 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=174



Caption: Cultivated
Photographer: John Smith-Dodsworth



Caption: A cultivated specimen
Photographer: John Smith-Dodsworth

Korthalsella salicornioides

Common Name(s):

Mistletoe, dwarf mistletoe, leafless mistletoe

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. North, South and Stewart Islands. From Te Pahi south - easily overlooked.

Habitat:

Coastal to upper montane and subalpine (0-1300 m a.s.l.). A parasite found in forest and shrublands. Most commonly found parasitic on *Leptospermum scoparium* J.R.Forst. et G.Forst. (kahikatoa/manuka) and members of the *Kunzea ericoides* (A.Rich.) Joy Thomps. (Rawiri/Titiri/Kanuka) complex.

Features:

Hemiparasitic, succulent, much branched, green, yellow-green, red-green to orange-green plant parasitising exposed branches and branchlets of host. Haustoria internal, dark green, encircling stele of host. Plants 30-100 x 10-450 mm, erupting from host bark, individual aerial structures lasting from 1-4 years before dehiscing and resprouting. Branches arising at narrow angles; Internodes terete, succulent to subsucculent, 3-10 x 1-3 mm, narrowed to a finely constricted node. Collar truncate, up to 0.5 mm long, sheathing at nodes. Flowers scarcely differentiated from barren stems, 3-10 x 1 mm. Fruit 1.5 mm long, ovoid to globular, dispersed by birds or ejected under hydraulic pressure

Flowering:

October - March

Fruiting:

October - May

Threats:

An apparently naturally uncommon and biologically sparse species which can on occasion be locally abundant, but is more usually known from large parts of its likely range by only spot or scattered occurrences. In some parts of its range it is seriously at risk due to the felling of its main host species (*Leptospermum* and *Kunzea*) for fire wood and also to clear land for farming or pine plantations.

References and further reading:

Cameron, E.K. 2001. *Korthalsella salicornioides* discovered close to Auckland city. *Auckland Botanical Society Journal*, 56: 53-54

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

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=275



Caption: Stevensons Island, Lake Wanaka

Photographer: John Barkla



Caption: Stevensons island, Lake Wanaka

Photographer: John Barkla

Kunzea amathicola

Common Name(s):

rawiritoa

Current Threat Status (2013):

At Risk - Declining

Distribution:

Endemic. New Zealand: North and South Islands - most westerly from Te Pahi south to Wellington, and from Farewell Spit south and west to West Whanganui Inlet. Also recorded from Kawau and Hauturu (Little Barrier Islands) and once from the northern Hauraki Plains

Habitat:

Coastal to lowland. A species mostly inhabiting mobile sand, sand dunes and sandy soils. Occasionally extending inland onto clay soils (at Unuwahao (Te Pahi), Around the Kaipara Harbour, Wellington and around Puponga)

Features*:

Shrubs or trees up to 15 m tall; heterophyllous. Those with persistent juvenile foliage mostly present in exposed conditions and unstable habitats, or at the margins of adult stands, usually forming domed, spreading shrubs up to 2 × 3 m with numerous erect to ascending, often interwoven branches; those with adult foliage forming single to multi-trunked trees up to 18 × 8 m, with very broad, spreading canopies. Trunk 1–2, 0.10–0.85 m d.b.h. Bark grey or grey-brown, ± elongate, tessellated, firmly attached, detaching basally with age, and peeling upwards along trunk in broad, tabular strips. Branches numerous, erect to suberect not spreading, often interwoven, arching and spreading; branchlets numerous, slender, branchlet indumentum copious, persistent; hairs silky, antrorse-appressed, usually flexuose, 0.23–0.50 mm long. Leaves sessile to shortly petiolate, well-spaced to crowded along branchlets, dark glossy green above, paler beneath. Juvenile lamina 2.4–5.3 × 1.2–2.3 mm, ovate, broadly ovate, rhomboid to obovate, adult lamina 6.0–12.5 × 1.8–3.8 mm, oblong, oblong-obovate, broadly oblanceolate to broadly lanceolate; apex of both juvenile and adult lamina obtuse, rounded to subacute, rostrate, base attenuate to narrowly attenuate; lamina margin completely obscured by a dense covering of antrorse-appressed hairs aligned in a thick, up to 0.6 mm wide, white, plumose band meeting with abaxial midrib hairs at the leaf apex. Inflorescence usually a well-spaced, elongate, 5–20-flowered botryum up to 200 mm long. Inflorescence axis densely invested with silky, antrorse-appressed, weakly flexuose hairs. Pherophylls persistent, foliose, spreading, dark glossy green, oblong, oblong-obovate, broadly obovate to elliptic; strongly recurved, to about half of total length or flat; juvenile lamina 2.0–5.3 × 1.2–2.3 mm, adult lamina 4.1–6.0 × 1.6–3.1 mm; apex obtuse, cuspidate, base attenuate; lamina margin obscured by dense covering of antrorse-appressed hairs. Pedicels 1.3–4.9 mm long, sparsely to densely invested in antrorse-appressed, weakly flexuose, silky hairs. Flower buds pyriform to hemispherical, apex usually flat or weakly domed prior to bud burst; calyx valves not meeting. Flowers 6.8–12.5 mm diameter. Hypanthium 1.9–4.0 × 3.0–5.6 mm, dark green or red-green; broadly obconic, turbinate to hemispherical, usually densely covered in silky, antrorse-appressed hairs, sometimes glabrous. Calyx lobes 5–8, 0.6–1.4 × 0.6–1.8 mm, ovate, ovate-truncate to broadly obtuse, pale green to red-green; margins glabrescent. Receptacle green at anthesis, darkening to crimson after fertilisation. Petals 5–8, 1.8–3.7 × 2.0–4.0 mm, white, orbicular to broadly ovate, apex rounded, margins ± finely and irregularly denticulate or crimped, oil glands colourless. Stamens 38–90, filaments white. Anthers dorsifixed, 0.40–0.60 × 0.20–0.35 mm, ellipsoid, ovoid-ellipsoid or broadly scutiform, latrorse. Pollen white. Anther connective gland either absent or if present prominent, deep golden-yellow to orange when fresh, drying orange to pink, spheroidal, rather finely papillate. Ovary 5–6 locular, each with 23–42 ovules in two rows on each placental lobe. Style 2.0–3.2 mm long at anthesis, white or pinkish-white; stigma broadly capitate, at least 1.5 × width of style, flat, greenish-white or pale pink, flushing red after anthesis, surface finely granular-papillate. Fruits 2.4–4.8 × 3.6–6.0 mm, dark green to chesnut-brown maturing grey, broadly obconic, turbinate or hemispherical, rarely broadly cupular; finely hairy to glabrescent. Seeds 1.2–1.7 × 0.3–0.6 mm, oblong, oblong-obovate, narrowly ellipsoid to cylindrical; testa semi-glossy, orange-brown to dark brown; surface coarsely reticulate.

Flowering:

July - June

Fruiting:

August - June

Threats:

Kunzea amathicola as *K. aff. ericoides* (a) (AK 286081; “sand”) is appropriately listed under as ‘At Risk / Declining’ by de Lange et al. (2013). Although widespread this species mostly now occupies highly fragmented and/or relict habitats, in many it is still being cleared for firewood. Very few stands of this species are reserved – the best of these are probably those at Farewell Spit and the adjacent Puponga area.

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 1 September 2014. Description modified from de Lange (2014).

References and further reading:

de Lange, P.J.; Rolfe, J.R.; Champion, P.D.; Courtney, S.P.; Heenan, P.B.; Barkla, J.W.; Cameron, E.K.; Norton, D.A.; Hitchmough, R.A. 2013: Conservation status of New Zealand indigenous vascular plants, 2012. *New Zealand Threat Classification Series 3*. Department of Conservation, Wellington.

de Lange, P.J. 2014: A revision of the New Zealand *Kunzea ericoides* (Myrtaceae) complex. *Phytokeys* 40: 185p doi: 10.3897/phytokeys.40.7973.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=7639



Caption: Intact capsule, Pilch Point, June 2008

Photographer: Simon Walls

Kunzea linearis

Common Name(s):

rawiri manuka

Current Threat Status (2012):

At Risk - Declining

Distribution:

Endemic. New Zealand: North Island from Te Pahi to northern Waikato with on disjunct outlier in the north-eastern Wairarapa (see de Lange 2014).

Habitat:

Coastal shrublands and cliff faces, usually on sand, sand podzols, and/or sandy peats. Rarely on podzolised clays or sandstone bluffs. Occasionally found inland.

Features*:

Erect shrubs or small trees up to 12 m. Trunk 1–4), mostly erect, 0.10–0.60 m d.b.h. Bark dark brown to brown, ± elongate, coarsely tessellated usually firmly attached, though peeling inwards leaving centrally attached lunate flakes. Branches numerous; ascending to upright, plumose; branchlets plumose, slender; branchlets sericeous, indumentum copious, hairs antrorse-appressed, weakly flexuose, up to 0.68 mm long. Leaves sessile, hairy, rarely glabrous, densely crowded along branchlets toward apices; lamina 9.3–19.5 × 0.3–1.2 mm, initially silvery-grey (due to dense hair covering), maturing dark green to glaucous green above (as hairs are shed); linear, apex sharply acute, cuspidate, base attenuate; lamina margins copiously covered in silvery-grey hairs, these forming a thick band and fusing with the abaxial midrib hairs just short of lamina apex, and along decurrent leaf bases. Inflorescence spiciform 3–12-flowered botrya 20–80 mm long or an elongated, spiciform, 10–40-flowered botryum up to 180 mm long. Flowers of smaller botrya crowded, those of elongated botrya regularly spaced up to 20 mm apart; terminal portion of both short and elongated spiciform botrya inflorescence types often bearing undeveloped flowers and active vegetative growth. Inflorescence axis densely invested in antrorse-appressed, weakly flexuose, silky hairs. Pherophylls, leaf-like, 1–2 per flower, hairy (rarely glabrous); lamina 6.0–12.8 × 0.9–2.2 mm, dark silvery-green, silvery-grey or glaucous (depending on extent of hair covering), linear to linear-falcate; apex acute, base attenuate; lamina margin densely covered by antrorse-appressed, sericeous hairs, rarely glabrous. Pedicels sessile to subsessile, up to 1.2 mm long, copiously invested with silky, antrorse-appressed, weakly flexuose hairs. Flower buds ovoid, double conic to pyriform, apex sharply erect; calyx lobes pinched at base inwards, touching prior to bud burst. Flowers 1.9–5.7 mm diam. Hypanthium 2.0–4.0 × 2.5–4.1 mm, copiously covered in silvery-white to silvery-grey hairs or glabrous; barrel-shaped, cupular or narrowly campanulate, rim bearing 5 persistent sharply erect calyx lobes; hypanthium usually completely covered in a dense covering of long, silky, antrorse-appressed silvery hairs. Calyx lobes 5, erect, 1.0–1.6 × 0.2–0.6 mm, narrowly deltoid to deltoid with acute tips, red-green, densely covered in long, silky, silvery, antrorse-appressed, hairs or glabrous. Receptacle green or pink at anthesis, usually darkening to crimson after fertilisation. Petals 5–6, 0.9–2.0 × 0.7–1.9 mm, cream, pale pink or cream basally flushed pink, narrowly ovate to suborbicular, suberect, apex rounded, margins ± finely and irregularly crumpled, oil glands colourless. Stamens 32–46(–60) in 1–2 weakly defined whorls, arising from receptacular rim, filaments cream. Anthers dorsifixed, 0.04–0.06 × 0.02–0.04 mm, testiculate, latrorse. Pollen white. Anther connective gland prominent, pale pink or golden-yellow when fresh, drying yellow to pale orange, spheroidal, finely to coarsely papillate. Ovary 3–5 locular, each with 18–30 ovules in two rows on each placental lobe. Style 0.8–2.0 mm long, cream or pale pink; stigma narrowly capitate, as wide as, or slightly wider than style, ± flat, greenish-white or pink, flushing red after anthesis, surface finely granular-papillate. Fruits 1.6–2.9 × 2.3–4.1 mm, initially silvery-white or silvery-grey due to dense hair covering, maturing grey-brown to grey-black, barrel-shaped to narrowly obconic, rarely campanulate to cupular, calyx valves prominently erect. Seeds 0.50–1.10 × 0.48–0.70 mm, obovoid, oblong, oblong-ellipsoid, or cylindrical; testa semi-glossy, orange-brown to dark brown, surface coarsely reticulate.

Flowering:

October–February

Fruiting:

December–June

Threats:

Primarily threatened through loss of habitat. The preferred coastal habitat of *K. ericoides* var. *linearis* is actively threatened by coastal resort development, and farming throughout its range. Also plants are cut for firewood. Very few populations occur on protected land. Hybridism with other *Kunzea* spp. is a major problem in urban settings such as Auckland.

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 1 September 2014. Description modified from de Lange (2014).

References and further reading:

de Lange, P.J. 2014: *A revision of the New Zealand Kunzea ericoides* (Myrtaceae) complex. *Phytokeys* 40: 185p doi: 10.3897/phytokeys.40.7973.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=130



Caption: *Kunzea ericoides* var. *linearis* bark

Photographer: Peter de Lange

Kunzea sinclairii

Common Name(s):

Great Barrier Island kanuka

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. New Zealand: Aotea Island / Great Barrier Island, where it is only known from the central portion of the island (de Lange & Norton 2004).

Habitat:

Rhyolite endemic, largely confined to exposed outcrops of this rock on the central portion of the island but also extending down gorges and in open clay pans and low windswept scrub in places formerly forested (see de Lange & Norton 2004).

Features*:

Mostly decumbent, trailing, silvery grey to grey, shrubs up to 3 × 1 m, very rarely forming trees up to 6 m tall; irrespective of stature, branches widely spreading and densely leafy, sometimes rooting on contact with soil or rock. Trunk 1–4, 0.05–0.16 m d.b.h. Bark dark brown to grey-brown, coarsely stringy to tessellated and distinctly corky-coriaceous, usually firmly attached, if detaching, then usually doing so along transverse cracks. Branches numerous, prostrate and widely spreading, new growth subscentent (in tree forms this habit is retained resulting in arching, pendulous branches); branchlets numerous, widely spreading to subscentent, often coarsely interwoven, leaves usually densely crowded along stems; branchlets sericeous, indumentum copious, silky, hairs antrorse-appressed, weakly flexuose up to 0.06 mm long. Leaves heterophyllous, mostly sessile, sometimes shortly petiolate (up to 1.6 mm long). Seedling and juvenile leaves dark green to glaucous, glabrous up to 25.0 × 3.5 mm, oblanceolate to lanceolate, apex acute, base attenuate. Mature leaf lamina 5.6–20.6 × 2.0–4.5 mm, initially silvery-white (due to dense hair covering), maturing silvery-grey to reddish grey (as some hairs are shed); lamina broadly lanceolate, elliptic to obovate, rarely oblong-obovate, apex sharply acute, often cuspidate, base attenuate; hairs of midribs and margins converging at leaf apex. Inflorescence a compact, corymbiform 4–20-flowered botryum 7.0–20.0 mm long; on occasion inflorescences may form elongated botrya on late season vegetative growth. Inflorescence axis densely invested with antrorse-appressed, weakly flexuose, silky hairs. Pherophylls deciduous, rarely present at flowering; foliose pherophylls 1.0–1.2 × 0.2–0.4 mm, oblong to oblong-lanceolate, very rarely broadly spatulate, cuspidate, copiously invested in sericeous, antrorse-appressed hairs; squamiform pherophylls 0.3–1.0 × 0.4–0.8 mm, broadly to narrowly ovate or lanceolate, apex acute, subacute to obtuse, margins finely ciliate. Pedicels 2.8–7.3 mm long, invested with silky, antrorse-appressed, weakly flexuose, hairs becoming glabrate. Flower buds 2.3–4.9 × 2.1–4.2 mm, ovoid to pyriform, apex flat to weakly domed prior to bud burst with calyx lobes held flat across surface, rarely meeting. Flowers 5.7–10.2 mm diameter. Hypanthium 1.9–3.6 × 2.1–4.2 mm, silvery-white to silvery grey or reddish-grey due to copious covering of hairs; narrowly obconic to obconic or cupular, surface covered in long, silky, antrorse-appressed silvery hairs. Calyx lobes 5, erect to suberect, or spreading, 1.1–1.6 × 0.9–1.8 mm, broadly obtuse, red-green to pale green with a white or pink membranous margin; lobe margins finely ciliate. Receptacle greenish pink or pink at anthesis, darkening to crimson after fertilisation. Petals 5–6, 2.0–3.6 × 2.1–3.3 mm, white, very rarely basally flushed pink, broadly ovate, suborbicular to orbicular, rarely ± cuneate-truncate, apex rounded, margins ± finely and irregularly crumpled or frayed, oil glands not evident in fresh or dried material. Stamens 18–46 in 1–2 weakly defined whorls, filaments white. Anthers dorsifixed, 0.06–0.1 × 0.06–0.09 mm, broadly ellipsoid to scutiform, latrorse. Pollen white. Anther connective gland pale pink when fresh, drying pale orange, spheroidal, coarsely papillate. Ovary 3–5 locular, each with 18–34 ovules in two rows on each placental lobe. Style 1.8–3.0 mm long at anthesis, white basally flushed pink or pale pink; stigma narrowly capitate, as wide as or scarcely wider than style, ± flat, greenish-pink or pink, flushing red after anthesis, surface finely granular-papillate. Fruits 2.2–3.6 × 2.7–3.9 mm, graphite grey, maturing to charcoal fading to greyish-white; narrowly obconic to obconic, rarely cupular, copiously covered in short, silky, antrorse-appressed hairs. Seeds 0.52–1.09 × 0.38–0.72 mm, obovoid, oblong, or oblong-ellipsoid; testa semi-glossy, orange-brown to dark brown, surface coarsely reticulate.

Flowering:

September to January

Fruiting:

February to July

Threats:

Common within open rhyolite rock habitat (90.5 ha (0.3 %) of the island (de Lange & Norton (2004)). As a consequence of past kauri logging, and associated burning, this species has extended its range to include open clay pans, windswept ridges tops, kauri log scoured gorges and other temporarily open sites. In these areas the species is declining through natural regeneration, and in many of these sites it is out-numbered by the hybrids *K. robusta* × *Kunzea sinclairii*. This hybrids though common does not pose a risk; ecological and genetic studies suggest hybrids are declining in abundance as a consequence of natural succession to taller forest (de Lange & Norton 2004).

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 1 September 2014. Description modified from de Lange (2014).

References and further reading:

de Lange, P.J.; Norton, D.A. 2004: The ecology and conservation of *Kunzea sinclairii* (Myrtaceae), a naturally rare plant of rhyolitic rock outcrops. *Biological Conservation* 117: 49–59.
<http://www.sciencedirect.com/science/journal/00063207/117/1>

de Lange, P.J. 2014: A revision of the New Zealand *Kunzea ericoides* (Myrtaceae) complex. *Phytokeys* 40: 185p
doi: 10.3897/phytokeys.40.7973.

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=555



Caption: Mt Young, Great Barrier Island

Photographer: Gillian Crowcroft

Kunzea triregensis

Common Name(s):

Three Kings kanuka

Current Threat Status (2013):

At Risk - Naturally Uncommon

Distribution:

Endemic. Three Kings Islands - North East, Manawatahi / Great Island, South West and West Islands

Habitat:

Coastal forest - on Manawatawhi / Great Island forms the dominant tree canopy

Features*:

Shrubs or trees up to 18 × 3 m. Trunk 1–4, 0.10–0.85 m d.b.h. Bark grey or grey-brown, ± elongate, tessellated, usually bearing a few transverse cracks, firmly attached, detaching basally with age, and peeling upwards along trunk in broad, tabular strips. Branches numerous; upright to somewhat spreading; branchlets numerous, slender; branchlets sericeous, indumentum copious; hairs long appressed, usually flexuose (220–)480(–520) μm long. Leaves sessile; lamina 6.0–13.5 × 1.1–2.3 mm, dark glossy green above, paler beneath with leaf margins and midrib appearing distinctly white because of dense hair growth; lamina lanceolate to narrowly lanceolate; usually strongly recurved for about half of total length; apex acute to narrowly acute, base attenuate; lamina margin completely obscured by dense covering of antrorse-appressed hairs aligned in a thick, up to 0.6 mm wide, almost plumose, white band meeting at leaf apex.

Inflorescence an elongated 3–20-flowered botryum up to 200 mm long, basal portion sometimes bearing compact, lateral 3-flowered corymbiform botrya, or with the basal and terminal portions occasionally bearing lateral elongate botrya; distal portions often interrupted by sections of leafy perules between which are spaced further flowers; or interrupted by short floral shoots bearing elongated 3–6-flowered botrya up to 20 mm long; terminal portion often bearing undeveloped flowers and vegetative terminal growth. Inflorescence axis densely invested in antrorse-appressed, weakly flexuose, hairs.

Pherophylls persistent, foliose, 6.0–12.8 × 0.9–2.2 mm, dark glossy green, elliptic, broadly lanceolate to lanceolate; apex acute, base attenuate; lamina margin obscured by dense covering of antrorse-appressed, silky hairs. Pedicels subsessile to pedicellate 0.4–3.7 mm long copiously invested in antrorse-appressed, weakly flexuose, silky hairs. Flower buds double-conic to ovoid, calyx lobes prior to bud burst held flat or suberect with lobes ± meeting. Flowers 6.3–12.3 mm diameter. Hypanthium 1.6–4.4 × 2.0–4.6 mm, dark green or red-green; hemispherical to broadly obconic, sometimes campanulate or rarely cupular, densely to sparsely covered in silky, appressed antrorse hairs. Calyx lobes 5, erect, 0.5–1.3 × 0.3–0.8 mm, deltoid to ovate-deltoid, green to red-green; margins pale green often flushed pink, glabrescent. Receptacle green at anthesis, darkening to crimson after fertilisation. Petals 5–6, 1.3–4.3 × 1.9–4.8 mm, white, orbicular to broadly ovate, apex rounded, margins ± finely and irregularly denticulate, oil glands colourless. Stamens 30–53 in 1–3 weakly defined whorls, filaments white. Anthers dorsifixed, 0.05–0.10 × 0.06–0.08 mm, testicular-ellipsoid, latrorse. Pollen white. Anther connective gland prominent, pink or golden-yellow when fresh, drying yellow to pale orange, spheroidal, finely to coarsely papillate. Ovary 4–5 locular, each with 20–38 ovules in two rows on each placental lobe. Style 1.9–3.1 mm long, white or pinkish-white; stigma broadly capitate, wider than style, ± flat, greenish-white or pale pink, flushing red after anthesis, surface granular-papillate. Fruits 1.9–5.2 × 2.0–4.9 mm, dark chestnut-brown, maturing grey, hemispherical, broadly obconic, campanulate to cupular. Seeds 0.50–1.10 × 0.50–0.80 mm, oblong, oblong-obovate; testa semi-glossy, orange-brown to dark brown; surface coarsely reticulate.

Flowering:

July–May

Fruiting:

October–May

Threats:

Kunzea triregensis as *K. aff. ericoides* (e) (AK 226797; Three Kings) is appropriately listed by de Lange et al. (2013) as 'At Risk/Naturally Uncommon' qualified 'IE' (Island Endemic) and 'OL' (One Location) because the species is confined to one island group. In its island habitat *Kunzea triregensis* forms the dominant vegetation of Manawatawhi / Great Islands.

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 25 August 2014. Description modified from de Lange (2014).

References and further reading:

de Lange, P.J.; Rolfe, J.R.; Champion, P.D.; Courtney, S.P.; Heenan, P.B.; Barkla, J.W.; Cameron, E.K.; Norton, D.A.; Hitchmough, R.A. 2013: Conservation status of New Zealand indigenous vascular plants, 2012. *New Zealand Threat Classification Series 3*. Department of Conservation, Wellington.

de Lange, P.J. 2014: A revision of the New Zealand *Kunzea ericoides* (Myrtaceae) complex. *Phytokeys* 40: 185p doi: 10.3897/phytokeys.40.7973.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=7643



Caption: In cultivation ex Great Island.

Photographer: Jeremy Rolfe



Caption: In cultivation ex Great Island.

Photographer: Jeremy Rolfe

Lagenophora lanata

Common Name(s):

None known

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. Confined to the North Island where it occurs locally from Te Pahi south to the Hauraki Gulf islands, Cuvier Island and Waitakere Ranges

Habitat:

Open or relatively bare clay pans, under short scrub or within rough pasture, in coastal locations. Often seen under tall kanuka (*Kunzea* spp.) forest where it grows on exposed clay or in shallow leaf litter. Seems to do best in semi-shaded sites.

Features*:

Small, tufted, non-rhizomatous herb with a simple or multiple root stock. Roots stout, rather fleshy, closely packed on stock up to 3 mm diameter. Rosette leaves 10-25 x 5-15 mm, grey-green to dark green, ovate, obovate-spathulate, obovate-oblong to obovate-cuneate, margins coarsely or shallowly, often rather distantly crenate-dentate to crenate-serrate or rarely subentire to entire; usually widest at or close to the proximal teeth, tapering from proximal teeth to the base, membranous, both surfaces velutinous, densely clad in soft, fine hairs; apex obtuse sometimes apiculate. Petioles 5-20 mm long, flat to subterete. Cauline leaves 0-3, similar to rosette leaves, smaller. Scapes 10-80 mm long, glabrescent, slender, somewhat wiry, pliant. Capitula 5-10 mm diameter; involucre narrow-oblong, obtuse to acute, glabrescent; hyaline margins narrow. Ray florets numerous, c.30-80, 0.3-0.8 mm long, white, disc florets 10-15 or more, yellow. Cypselae 2.5-2.75 x 1 mm, brown to grey-brown, obliquely obovate, glabrous, margins thickened. Beak stout 0.5 mm long, following curvature of margin.

Flowering:

September - March

Fruiting:

November - June

Threats:

Not directly threatened but generally uncommon throughout its known range. Often grows in rough or poorly maintained pasture reverting to scrub so is vulnerable to pasture improvement

*Attribution:

P.J. de Lange (3 May 2011). Description based on fresh material and herbarium specimens held at AK.

References and further reading:

Drury, D.G. 1974: A Broadly Based Taxonomy of *Lagenifera* Section *Lagenifera* and *Solenogyne* (Compositae-Asteraceae), with an Account of their Species in New Zealand. *New Zealand Journal of Botany* 12: 365-395.

Nakamura, K.; Denda, T.; Kokubugata, G.; Forster, P.I.; Wilson, G.; Peng, CH.; Yokota, M. 2012: Molecular phylogeography reveals an antitropical distribution and local diversification of *Solenogyne* (Asteraceae) in the Ryukyu Archipelago of Japan and Australia. *Biological Journal of the Linnean Society*, 105, 197-217.

Nicolson, D.H. 1996: (1233) Proposal to conserve the name *Lagenophora* (Compositae) with a conserved spelling. *Taxon* 45: 341-342.

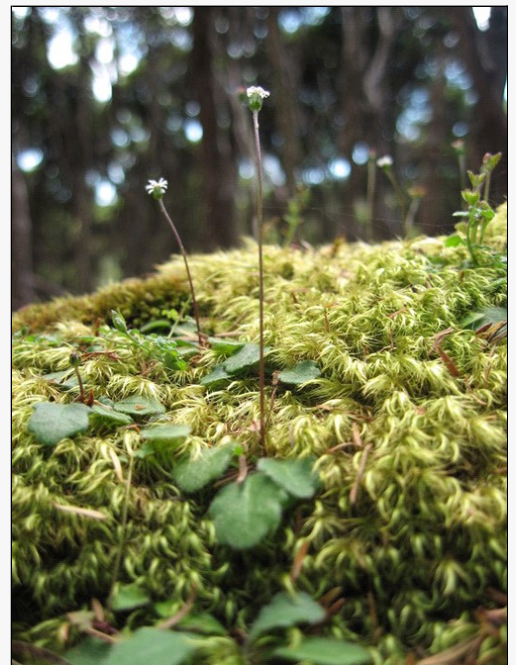
Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=277



Photographer: Rebecca Stanley



Photographer: Rebecca Stanley

Lepidosperma neozelandicum

Common Name(s):

fountain sedge, fountain grass

Current Threat Status (2012):

At Risk - Declining

Distribution:

Endemic. New Zealand: North Island (Te Pahi to about Whangarei, thence scattered to Opuatia wetlands in the northern Waikato); South Island (north-west Nelson from Puponga to the Mangarakau Swamp)

Habitat:

Coastal to lowland. Often on poorly drained clay soils on low hill country but also widespread in gumland habitats, and on damp sandy flats and in peat bogs (especially in Northland). This species is also abundant on the ultramafic soils of the Surville Cliffs, Te Pahi, Northland. Often found as the main sedge species under far north *Kunzea* Rchb. and *Leptospermum* J.R.Forst. et G.Forst. dominated shrubland.

Features*:

Stout, rush-like sedge forming dense yellow-green tussocks up to 2 m tall. Culms terete, numerous, densely packed, wiry, erect with upper third often arching, 0.5-2.0 m tall, 1-2 mm wide. Leaves all reduced to closely appressed, reddish to maroon sheaths, with a subulate, almost filiform lamina 5-20 mm long. Inflorescence a simple or rarely branched spike 30-90 mm long. Spikelets 10 mm, not fascicled, 2-flowered, with only the upper flower fertile; bracts subtending spikelets membranous, grey-brown, nerved, more or less equal spikelets in length. Glumes 4-6, narrow- or oblong-lanceolate, acute or acuminate, with dark brown centre and pale membranous margins. Hypogynous scales 6, 1 mm long, white, triangular when mature, fused at the base into a cup. Nut (rarely seen) 4 x 1.5 mm, oblong, trigonous, green with white thickened obtuse angles; persistent style-base small, creamy brown, pubescent, occasionally minutely apiculate.

Flowering:

October -
January

Fruiting:

December - May (fruits very rarely
seen)

Threats:

Declining through loss of habitat following conversion of gumland and lowland scrub and wetlands to farmland and urban areas. *Lepidosperma neozelandicum* is still common in some parts of the far north of the North Island (especially Te Pahi, Ahipara and Lake Ohia) and in North West Nelson but it has been lost from much of the southern part of its North Island range and this decline is ongoing.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 6 August 2006. Description adapted from Moore & Edgar (1970).

References and further reading:

Barrett, R.L.; Wilson, K.L. 2012: A review of the genus *Lepidosperma* Labill. (Cyperaceae; Schoeneae). *Australian Systematic Botany* 24: 225-294.

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* 11: 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2184



Caption: *Lepidosperma filiforme* sedgeland, North Cape. Feb 2011.
Photographer: Peter de Lange



Caption: North Cape. Feb 2011.
Photographer: Peter de Lange

Leptinella dispersa subsp. *dispersa*

Common Name(s):

None known

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. North, South, Stewart and Campbell Islands. On the main islands present from Te Aupouri (Mt Camel) to Southland.

Habitat:

Lowland, usually coastal, on stream and lake margins or on the margins of freshwater swamps and wetlands bordering saltmarsh, sometimes in deep hollows or on shaded cliff faces. On occasion this species has been found on cattle pugged swampy ground bordering saltmarshes. Intolerant of much shading and grass competition it favours open sites. In the southern North Island it often grows with *L. tenella* (A.Cunn.) D.G.Lloyd et C.Webb.

Features*:

Dioecious or monoecious (Wellington Region only), widely creeping, perennial herb forming loose patches or compact turf depending on local conditions. Rhizomes at or near soil surface, green, dark red-green or purple, pliant, sparsely villous; branches usually single at flowering nodes; leaves in two rows, single at apex, 5-20 mm apart. Short shoots alternate on both sides of rhizomes with distant leaves. Roots white, slender up to 0.3 mm diameter. Leaves 1-pinnatifid, variable in size, submembranous, 30-50 x 4-8(-10) mm; lamina obovate to narrowly obovate, bright green, usually with the basal pinnae brown to red-brown pigmented, glabrous, midrib not raised on upper surface; pinnae 4-10 pairs, distant or distal ones overlapping, cut to rachis, elliptic or broadly-elliptic; teeth absent or with 1-2 on larger pinnae or up to 10 on all pinnae, obvious, confined to distal and outer margins, sometimes extending partly onto proximal margin, small, cut 1/3 across pinna, triangular, or oblong, acute or acuminate. Peduncles on rhizomes, short but equal to leaves in length, 2-30 mm long, ebracteate, pilose-hairy. Capitula 2-3 mm diameter (pistillate capitula 4 mm in fruit); surface convex. Pistillate capitula involucre urceolate; involucre bracts 8-22 in 2 or more unequal rows, broadly elliptic, green, glabrescent, margins scarious, brown; inner involucre bracts extending in length to enclose the subglobose fruiting head; florets 10-30, 1.5 mm long, not exceeding involucre bracts, curved, yellow-green, corolla slightly longer than wide; with unequal teeth. Staminate capitula with hemispherical involucre; involucre bracts 5-8 in 1-2 subequal rows, not growing after anthesis; florets more numerous. Bisexual heads intermediate, with sex-types varying in proportion from capitula to capitula. Cypsela 1.3-1.6 x 0.6-0.8 mm, brown, slightly compressed, at first chartaceous maturing smooth.

Flowering:

September - January

Fruiting:

October - June

Threats:

This species has a naturally sporadic distribution, and sometimes can be locally common. It is not nationally threatened but some populations are at risk from land reclamation, wetland drainage, and competition from weeds

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula dispersa* subsp. *dispersa*.

References and further reading:

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

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

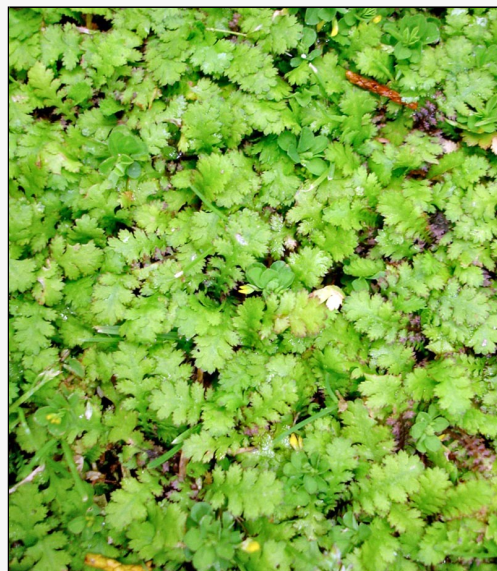
For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=279



Caption: In cultivation ex Lake Kohangapiripiri. Dec 2006.

Photographer: Peter de Lange



Caption: In cultivation ex Lake Kohangapiripiri. Dec 2006.

Photographer: Peter de Lange

Leptinella minor

Common Name(s):

Banks Peninsula button daisy

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. South Island, Banks Peninsula - however historic herbarium specimens show it was once on the Canterbury Plains

Habitat:

Sea level to 600 m a.s.l., on rock outcrops and associated open, rubbly skeletal soils. Usually found in sites within little surrounding vegetation. Sometimes in open grassland.

Features*:

Monoecious, creeping perennial herb forming open or diffuse patches. Rhizomes at soil surface, slender to stout 0.5-2 mm diameter; early season branches clustered, with up to 5 radiating from around a flowering node; branches produced later in season usually single at flowering nodes. Leaves 3-10, usually clustered but in vigorous growth spaced up to 20 mm apart. Short shoots absent or with 1-few small leaves. roots 0.5-1 mm diameter, thick, coriaceous. Leaves 1-pinnatifid, 10-50 x 3-10 mm; blade 3-40 mm, dull green usually with much brown pigment on proximal pinnae, obovate, coriaceous, more or less glabrous; pinnae 5-12 pairs, not overlapping, cut to rachis, obovate, teeth 0-7 per pinna, usually restricted to proximal pinnae, on distal margins, cut 1/2-2/3 across pinna, oblong, obtuse and minutely mucronate. Peduncles borne on rhizomes, equal or longer than leaves, slender, 20-50 mm long, ebracteate or with 1 bract, pilose hairy. Capitula 4-6 mm diameter; surface convex, involucre outspread; involucral bracts 15-20, equally biseriate, suborbicular, pilose hairy, with a wide brown scarious margin; pistillate florets 70-130, 2- or more seriate, 1.75 mm long, straight, white; corolla longer than wide, teeth equal; staminate florets equal in number. Cypsela 1 x 0.5 mm, pale brown when mature, slightly compressed, transversely wrinkled.

Flowering:

September - July

Fruiting:

September - August

Threats:

A naturally uncommon, range restricted species which can be locally abundant on parts of Banks Peninsula. It is possible that some populations have declined due to the spread of introduced weeds (especially grasses) but there is no documentation to demonstrate this.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula minor*.

References and further reading:

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

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=566



Caption: Banks Peninsula
Photographer: Melissa Hutchison



Caption: Banks Peninsula
Photographer: Melissa Hutchison

Leptinella tenella

Current Threat Status (2012):

At Risk - Declining

Distribution:

Endemic. North Island, northern South Island. In the North Island scattered from Mt Camel to Kawhia Harbour in the west and Matata in east, thence absent until the Horowhenua and Wairarapa. Local in North-West Nelson and the Marlborough Sounds.

Habitat:

Lowland, usually on stream margins where they enter estuaries, on lake margins or on the margins of freshwater swamps and wetlands bordering saltmarsh. On occasion this species has been found on cattle pugged swampy ground bordering saltmarshes. Intolerant of much shading and grass competition it favours sites that are kept open through periodic disturbance from high tides and flooding. Very rarely found inland on lake margins.

Features*:

Soft, widely creeping, monoecious perennial herb forming loose patches or a dense turf depending on local conditions. Rhizomes at or near soil surface, dark red-green or green, pliant, sparsely villous hairy, branches usually single at flowering nodes; leaves in two rows single at apex, 5-20 mm apart. Short shoots alternate on either side of rhizome, bearing 1-6(-8) clustered leaves, occasionally converting to rhizomes, then bearing distant leaves. Roots white, numerous, slender up to 0.4 mm diameter. Leaves 1-pinnatifid, 10-40 x 4-15 mm, lamina up to 35 mm long, obovate, membranous, bright green (verdant green), sometimes with proximal pinnae brown pigmented, glabrous; midrib not raised on upper surface; pinnae 6-10(-12) pairs, not or scarcely overlapping, cut deeply to rachis, broadly elliptic to suborbicular; teeth numerous, on all pinnae, up to 12 per pinna, usually extending around the entire margin (sometimes lacking on proximal side), cut to 1/3 across pinna, narrowly triangular to oblong, acute or mucronate, large ones sometimes bearing 1-2 teeth. Peduncles on rhizomes 5-15 mm, green or dark red-green, ebracteate or rarely with 1 bract, sparsely pilose. Capitula 2-6 mm diameter; surface convex; involucre upcurved or flat; involucral bracts 8-12 in 2 subequal rows, broadly elliptic, green, glabrous, with broad red-brown, scarious margins, not growing after anthesis; pistillate florets 20-45 in 2 or more rows, c. 1.5 mm long exceeding phyllaries, slightly curved, yellow-green; corolla slightly longer than wide, with almost equal dentation; staminate florets fewer, 10-15. Cypsela up to 1.3 x 0.6 mm, brown, slightly compressed, surface chartaceous and smooth.

Flowering:

August - November (-December)

Fruiting:

October - January (-April)

Threats:

A naturally uncommon species of sporadic distribution. Some populations have declined due to spread of weeds and associated wetland drainage

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 31 August 2006. Description from Lloyd (1972) - as *Cotula tenella*.

References and further reading:

Lloyd, D.G. 1972: A revision of the New Zealand, Subantarctic, and South American species of *Cotula*, section *Leptinella*. *New Zealand Journal of Botany* 10: 277-372.

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=280



Caption: *Leptinella tenella* at Whangatupere Bay
Photographer: Bill Campbell



Caption: Aug 2007.
Photographer: Peter de Lange

Libocedrus plumosa

Common Name(s):

Kawaka, NZ cedar

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Endemic. North and South Islands. In the North present from Te Pahi (Radar Bush) south to about the southern Kawhia Harbour (in the west) and near Gisborne (in the East), thence disjunct to north-west Nelson, where it grows locally around the Golden Bay area from about Puponga south to the Anatoro River.

Habitat:

Coastal to lowland mixed broadleaf/hardwood forest. Often found in association with kauri (*Agathis australis* (D. Don.) Lindl.). Often on ridge lines, spurs, or forming apparently even-aged cohorts in sites of former major disturbance, such as in or around stabilised slips, slumps, or areas of major wind throw damage. This species tends to colonise more fertile soils and soils overlying high fertility (base-rich) substrates.

Features*:

Evergreen, monoecious tree up to 35 m tall, 2-3 m d.b.h. Bark thin, scaly, light-brown to greyish-brown, peeling readily in long irregular, inrolled strips. Branches spreading or ascending, branchlets numerous, spreading, arranged in dense sprays in tiers above each other, forming a pyramidal crown in young trees, becoming conical, rounded or irregular in older specimens. Foliage in flattened sprays except when cone-bearing, ultimate branches subopposite to alternate, 15-35 x 2-6 mm, leafy, flattened, long persistent. Leaves decussate, on lateral branchlets shortly decurrent, imbricate, dimorphic, rhombic 1-2 x 1 mm, apiculate to acute, appressed, partially covered at base by 2-6 x 1.5-2 mm, divergent, bilaterally flattened, slightly curved laterals with entire margins and free apices; leaves on older trees smaller and monomorphic. Male cones terminal, solitary, subglobose to ovoid, 3-5 mm, yellowish-green, maturing light brown. Female cones terminal subtended by weakly dimorphic leaves; comprising 2 decussate pairs of acute 4-6 mm long, spreading bracts subtended by 3-4 pairs of similar, gradually shorter leaves, the upper pair developing within one growing season to become thin, woody, and forming a cone 12-18 mm long. Seeds 2-4, ovoid, flattened, with an acute apex 3-5 mm long, brown, with a whitish hilum and 2 opposite, thin membranous wings of very unequal shape and size, the smaller a narrow strip less than 1 mm wide, the larger irregular oval-oblong, 6-8 x 3-4.5 mm, yellowish-brown.

Flowering:

July - September

Fruiting:

July - June

Threats:

A widespread and at times locally common, though generally naturally sparse species. Although it was logged when suitable trees were found its general scarcity meant that logging has had little effect on its overall distribution and abundance. This species may even have benefited from past logging because it is at its most abundant in places that were once heavily logged, and/or burned. In fact field evidence suggests that *Libocedrus plumosa* needs regular disturbance to maintain itself.

*Attribution:

Fact sheet prepared for NZPCN by P.J. de Lange 3 February 2006. Description adapted from Allan (1961), Webb & Simpson (2001) and Farjon (2005).

References and further reading:

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

Farjon, A. 2005: A monograph of Cupressaceae and Sciadopitys. Royal Botanic Gardens, Kew. ISBN 1842460684.

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

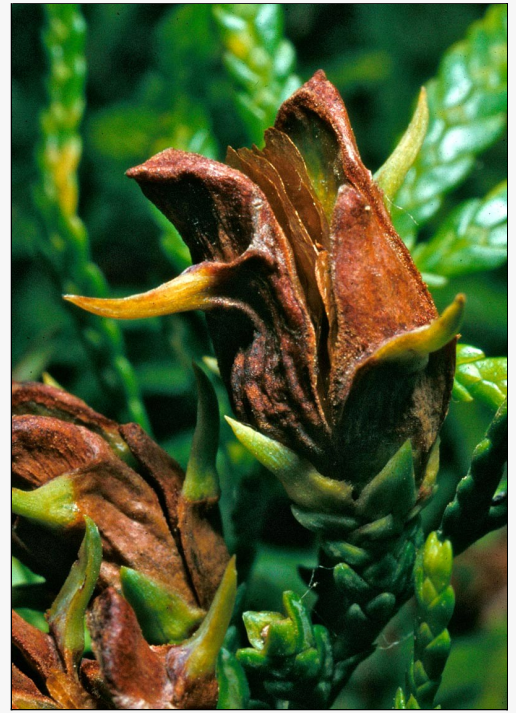
For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=281



Caption: Cones. North Auckland.

Photographer: © John Braggins



Caption: Cone detail. North Auckland.

Photographer: © John Braggins

Lindsaea viridis

Current Threat Status (2012):

Naturally Uncommon

Distribution:

Endemic. North and South Islands. In the North Island from Little and Great Barrier Islands south to Taranaki, Lake Taupo and the northern Hawkes Bay. In the South Island present from the Marlborough Sounds south to and west to Jacksons Bay.

Habitat:

A rheophytic species favouring the flood zone of steep-sided streams, rivers and deep gorges. It usually grows with its roots immersed in flowing water, or in damp seepages, or permanently damp but draining moss lined cliff faces. It has also been found to be locally abundant along the bases of ignimbritic cliffs lining the shores of Lake Taupo, where it grows just within the spray zone of the lake - often with *Hymenophyllum atrovirens* (see Fact Sheet for that species)

Features*:

Bright green tufted fern with pendulous heavily divided narrow fronds, occurring either as solitary plants or large patches in permanently damp places. Rhizomes short-creeping, ascending, scaly. Stipes 30-120 mm long, purplish brown. Fronds bright green, narrowly elliptic, narrowly ovate to lanceolate, 2-3-pinnate, 40-300 x 10-50 mm, pendulous, bright green. Pinnae in 7-20 pairs, aside from the basal 1-2 pairs overlapping. Ultimate segments 4-7 x 1-25 mm, broadest above the middle, blunt-ended, with smooth or toothed margins. Sori at ends of ultimate segments, almost round or broader than long. Indusia oblong to elongated cream to light green coloured, margins smooth or toothed.

Flowering:

N.A. - spore producing

Fruiting:

N.A. - spore producing

Threats:

This species is a naturally uncommon, sparsely distributed fern, which on occasion (such as the western cliff lined shores of Lake Taupo) can be extremely common, but which is more usually known at any particular site by a handful of plants. As such at some locations it is extremely vulnerable to over collection.

***Attribution:**

Fact sheet prepared for NZPCN by P.J. de Lange (June 2005). Description adapted from Brownsey & Smith-Dodsworth (2000).

References and further reading:

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=938



Caption: *Lindsaea viridis* plant at Great Mercury Island

Photographer: John Smith-Dodsworth



Caption: *Lindsaea viridis* close up of plant growing in flood zone of the upper Hihikiwi Stream

Photographer: Peter de Lange, January 1985, Hihikiwi Catchment, Mt Pirongia

Lobelia physaloides

Common Name(s):

Colensoa, koru

Current Threat Status (2012):

At Risk - Declining

Distribution:

Endemic. Three Kings, Poor Knights, Hen (Taranga) and Rakitu Islands, mainland northern North Island from Te Pahi to about Whangarei and Trounson Kauri Forest. Its remote presence on Rakitu Island off the eastern side of Great Barrier Island suggests that it was probably more widespread on the mainland than the current distribution suggests.

Habitat:

Coastal and lowland forest. Often along stream sides, or in damp sites in half-shade. Formerly common in these types of habitats within the more northerly kauri (*Agathis australis*) forest remnants.

Features*:

Densely branched shrub up to 1 x 1 m. Basal stems and rootstock woody. Branches and branchlets erect to spreading, square in cross-section, green or purple, softly hairy. Leaves alternate, petioles stout, fleshy, up to 100 mm long. Leaves (50-)70-150(-200) x (30-)4-60-(100) mm, membranous, dark green to green, broad-ovate to ovate-oblong or elliptic oblong, apex acute to subacuminate, glabrescent, or finely hairy, with hairs concentrated on veins, leaf margins coarsely serrate. Inflorescences terminal racemes, (5-)10-15(-20)-flowered. Peduncles pubescent. Flowers on slender, pubescent, pedicels 20 mm long; bracts linear. Calyx lobes 8 mm, narrow-triangular to filiform, ciliolate. Corolla, pubescent, 30-50 mm long, violet, dark blue, or rarely white. Lower lip 3-toothed, upper deeply 2-cleft. Berry subglobose, 10-15 mm diam., blue, white with blue spots or streaks or white. Seed 0.6-0.9 mm, broadly elliptic, broadly obovate or circular, orange to orange-brown

Flowering:

May flower throughout the year. However plants are mostly found in flower between August and January

Fruiting:

Fruit may be present throughout the year. However, they are more common between November and March

Threats:

As a high palatable herb this species has virtually vanished from most of its former mainland habitat. It remains abundant on islands free of browsing animals (such as the Three Kings and Poor Knights). On the mainland plants can be found in locations inaccessible to browsing animals, such as boulder falls and cliff faces and in any location where prolonged animal control or human traffic has reduced or limited the affect of these creatures. If animal browse is removed this species can make a spectacular recovery.

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 1 August 2003. Description based on Allan (1961) .

References and further reading:

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

Lammers, T.G. 2011: Revision of the infrageneric classification of *Lobelia* L. (Campanulaceae: Lobelioideae). Annals of the Missouri Botanical Garden 89(1): 37-62.

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=156



Caption: Colensoa physaloides at Totara North

Photographer: Bill Campbell



Caption: Colensoa physaloides at Whatuwhiwhi, Karikari Peninsula

Photographer: Bill Campbell

Mazus novaezeelandiae subsp.
novaezeelandiae

Common Name(s):

dwarf musk

Current Threat Status (2012):

At Risk - Declining

Distribution:

Endemic to New Zealand.

Habitat:

This taxon prefers lowland, wet, sometimes swampy forest, pasture and is occasionally found on forest margins.

Features*:

A perennial, creeping herb forming compact, leafy rosettes, leaves spoon-shaped, dark green to yellow-green 20–75 mm long. The margins of the leaves may be pigmented brown. The erect inflorescence is often held well above the foliage and may bear from 1 to 5 Mimulus-like flowers, these are white with a yellow throat.

Flowering:

Flowering occurs in November.

Fruiting:

Fruiting capsules are found from December to April.

Threats:

Very susceptible to disturbance, habitat clearance and modification including stock trampling.

***Attribution:**

Fact Sheet prepared for NZPCN by P.J. de Lange (30 August 2003). For more information see Heenan (1998)

References and further reading:

Heenan, P. B. 1998: *Mazus novaezeelandiae* (Scrophulariaceae): taxonomy, distribution, habitats, and conservation. *New Zealand Journal of Botany* 36(3): 407-416.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=135



Caption: Tinui, Wairarapa.
Photographer: Jeremy Rolfe



Caption: Tinui, Wairarapa.
Photographer: Jeremy Rolfe