



New Zealand Flora

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

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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.

Acacia dealbata

Common Name(s):

silver wattle

Threat Status (2009):

Exotic

Habitat:

A plant of riverbed habitats and waste places. Prefers relatively high fertility and light.

Features:

Shrub to large tree with ribbed twigs. Leaves 2-pinnate, alternate and glaucous. Inflorescence consists of numerous many-flowered, medium yellow, globose heads arranged in axillary racemes nearly equal to the leaves. Pod glabrous, usually straight, up to 100 x 12 mm.

Flowering:

July, August, September

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2404



Caption: Robinson Crusoe Island, Chile

Photographer: John Sawyer



Caption: Robinson Crusoe Island, Chile

Photographer: John Sawyer

Baccharis halimifolia

Common Name(s):

baccharis

Threat Status (2009):

Exotic

Flowering:

February, March, April, May

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2513



Caption: Baccharis halimifolia

Photographer: ARC



Caption: Baccharis halimifolia

Photographer: ARC

Cistus creticus

Common Name(s):

rock rose

Threat Status (2009):

Exotic

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=3707



Caption: cult. Auckland

Photographer: John Smith-Dodsworth



Caption: cult. Auckland

Photographer: John Smith-Dodsworth

Clianthus puniceus

Common Name(s):

Kakabeak, kowhai ngutu kaka, kaka beak

Threat Status (2009):

Nationally Critical

Distribution:

Endemic. North Island. Exact historic range is unclear because Maori planted this species around their settlements. Indeed it has even been suggested that none of the historic sites, or the sole existing one are natural but stem from past Maori plantings. Whatever the case, the few herbarium specimens and historical writings suggest this species might have been endemic to Northland and the eastern Auckland portion of the Hauraki Gulf.

Habitat:

Exact habitat preferences are uncertain. Historic records rarely provide any habitat details, and with many it is difficult to determine if the specimens come from Maori plantings. The only known wild population grows in short coastal scrub on talus at the base of eroding mudstone (turbidite) cliffs. Some old herbarium specimens and visits to locations where kakabeak had once been recorded from suggest that the type of habitat the species occupies now is probably indicative of its former habitat preferences.

Features:

Shrub 0.8-3 m tall. Wood soft, stems "watery" easily broken. Branchlets weakly ascending, often decurved. Leaves 15 cm long, imparipinnate, with 15-20 pairs of subsessile leaflets. Leaflets, dull green to grey-green, upper surface dull, 150-250 mm, linear-oblong, apex retuse or rounded. Inflorescences racemose, 15-25-flowered, located in leaf axils near branch apices. Flowers 80 mm, scarlet, pink or entirely white. Standard ovate-acuminate, 60 mm, either scarlet or pink, in which case striped longitudinally with white, or entirely white and lacking stripes; wings 30 mm long, lanceolate-falcate; keel 60 mm long, falcate-acuminate, either scarlet or pink in which case the broader base is usually blotched with white, or entirely white without other markings. Pods long persistent, 80 mm, at first green and turgid, drying black and splitting open for entire length. Seeds numerous, c.1-1.5 mm diam, grey various striped or blotched with black, embedded in wispy grey, floccose hairs.

Flowering:

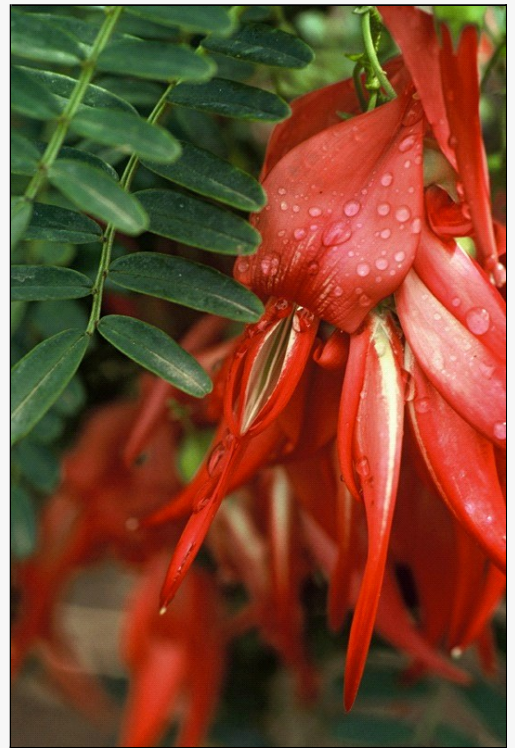
May flower throughout the year. However plants are most usually found in flower between August and January

Threats:

At serious risk of extinction. As of 2005 only one naturally occurring plant is known from the wild, at a single site near the Kaipara Harbour. At this site kakabeak is vulnerable to summer droughts, competition from weeds, and browsing animals, including rodents. Plants from this site are in cultivation.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=13



Caption: Ex. Cult
Photographer: Gillian Crowcroft



Caption: Ex. Cult
Photographer: Gillian Crowcroft

Fruiting:

Seed pods may be present at anytime of the year

Corokia buddleioides

Common Name(s):

korokio

Threat Status (2009):

Non Threatened

Threats:

Not Threatened

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1755



Caption: Mt Donald McLean

Photographer: Gillian Crowcroft



Caption: *Corokia buddleioides*, Mt Donald McLean

Photographer: Gillian Crowcroft

Euryops pectinatus

Common Name(s):

Paris Daisy

Threat Status (2009):

Exotic

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=4141



Caption: Rings Beach,
Coromandel

Photographer: John Smith-
Dodsworth



Caption: Rings Beach,
Coromandel

Photographer: John Smith-
Dodsworth

Fatsia japonica

Common Name(s):

fatsia

Threat Status (2009):

Exotic

Habitat:

Terrestrial.

Features:

Tree (up to 6 m) with large leaves and a green-black spherical berry 5-8mm diameter (Rogan, 1997).

Flowering:

March, April, May

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=3941



Caption: Fatsia japonica

Photographer: Peter de Lange



Caption: Fatsia japonica close up of fruiting plant (wild)

Photographer: Peter de Lange, 8 June, Mt Albert, Auckland

Genista monspessulana

Common Name(s):

montpellier broom

Threat Status (2009):

Exotic

Habitat:

Terrestrial.

Features:

Much-branched, usually evergreen shrub up to 2.5m high; twigs villous, particularly when young, round and ribbed. Leaves usually sparsely to densely clothed in appressed hairs on both surfaces, sometimes subglabrous above, petiolate, 3-foliolate; leaflets shortly petiolulate, obovate, acute to obtuse and shortly mucronate, 7~20 x 4~10mm; terminal leaflet larger than lateral leaflets; stipules triangular to lanceolate, up to 2.5mm long. Infl. a cluster, with axis < 10mm long, of 4~7 flowers, terminating short lateral branches; pedicels approx. 3mm long. Calyx densely hairy, bilabiate; upper lip deeply bifid; lower lip shortly 3-lobed. Corolla yellow to golden yellow, 9~13mm long; standard glabrous. Pod densely villous, oblong, 3~6-seeded, around 18~20mm long; seeds green to black, ellipsoid or orbicular, flattened, approx. 2.5mm diam. (Webb et. al., 1988)

Flowering:

May, June, July, August, September, October, November

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2826



Caption: Teline monspessulana

Photographer: John Smith-Dodsworth



Caption: Teline monspessulana

Photographer: John Smith-Dodsworth

Lagunaria patersonia subsp. *patersonia*

Common Name(s):

Norfolk Island hibiscus tree, white oak, whitewood, pyramid tree

Threat Status (2009):

Exotic

Habitat:

A commonly planted tree in coastal and lowland areas of northern New Zealand. Popular because it is very fast growing and once established wind, salt and drought tolerant. The seeds are enclosed in long hibiscus-like pods, these are covered in bristle-like hairs which can cause major irritation if they pierce the skin.

Flowering:

September - April but sporadic throughout the year

Fruiting:

Present throughout the year

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=4376



Caption: *Lagunaria patersonia* subsp. *patersonia*

Photographer: Bec Stanley



Caption: Auckland. Feb 2007.

Photographer: Peter de Lange

Olearia angustifolia

Common Name(s):

Teteaweka

Threat Status (2009):

Non Threatened

Distribution:

Endemic. Confined to Stewart Island, the shores of the Foveaux Strait and surrounding smaller islands

Habitat:

Coastal habitats in "muttonbird scrub" usually overlying peat. Never far from the sea.

Threats:

Not Threatened

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1042



Caption: *Olearia angustifolia* on the Bluff coast, January

Photographer: John Smith-Dodsworth



Caption: Foliage of *Olearia angustifolia* Bluff coast, January

Photographer: John Smith-Dodsworth

Olearia paniculata

Common Name(s):

Akiraho, golden akeake

Threat Status (2009):

Non Threatened

Threats:

Not Threatened

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=1058



Caption: In cultivation. June 2005.

Photographer: Jeremy Rolfe



Caption: Cultivated. Hukutaia Domain. April

Photographer: John Smith-Dodsworth

Psoralea pinnata

Common Name(s):

dally pine

Threat Status (2009):

Exotic

Habitat:

Terrestrial. Shrublands, especially dry slow growing shrublands, coastal areas, tracksides, road verges, dry gullies, and forest margins. Shrublands

Features:

Much-branched shrub or small tree, to approx. 5m high; twigs sparsely to moderately hairy, ribbed. Leaves imparipinnate, sparsely to moderately hairy, petiolate; leaflets filiform, acute to acuminate, in 1~4 opposite pairs, 15~40mm long; stipules connate at base, lanceolate, 3~6mm long. Flowers axillary, solitary or in small clusters amongst leaves; pedicels 3~8mm long; bracts subtending pedicel lanceolate, 4~8mm long; bracteoles connate into a closed cup on the pedicel. Calyx hairy; calyx teeth < tube, triangular; lowest tooth slightly larger. Wings and keel white to pale blue; standard deeper blue or mauve toward apex, 12~18mm long. Pod glabrous, wrinkled, elliptic, 1-seeded, 4~5mm long; seeds smooth, dark brown. (-Webb et. al., 1988)

Flowering:

November, December, January

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2863



Caption: Te Paki. Nov 2007.

Photographer: Jeremy Rolfe



Caption: Te Paki. Nov 2007.

Photographer: Jeremy Rolfe

Viburnum tinus var. *tinus*

Common Name(s):

laurustinus

Threat Status (2009):

Exotic

Features:

Upright, rounded evergreen shrub.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=2621



Caption: Viburnum tinus
Photographer: John Smith-Dodsworth



Caption: Viburnum tinus
Photographer: John Smith-Dodsworth

Westringia fruticosa

Common Name(s):

Coastal Rosemary, Morning Light, McKains Puzzle

Threat Status (2009):

Exotic

Habitat:

In New Zealand this species has been collected four times from the Auckland Region. Twice from hard gumland clay within a cemetery (Waikumete) and in a coastal subdivision (Greenhithe) and twice from joints within basalt lava flows (Mt Albert, Western Springs). These situations appear to be examples of genuinely wild plants. This species is widely cultivated in New Zealand.

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=4326



Caption: *Westringia fruticosa* close up of flowers (wild plant)

Photographer: Peter de Lange, 1 Nov 2006, Western Springs, Auckland



Caption: *Westringia fruticosa* plant growing in jointed basalt lava flow.

Photographer: Peter de Lange, 1 Nov. 2006, Western Springs, Auckland