

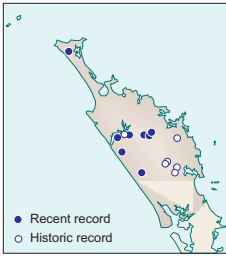
Baumea complanata

Status

Range Restricted

Description

A tufted, leafy sedge to 0.9 m tall. Leaves are arranged in two fan-like rows, and are flat, upright, 500-900 × 3-15 mm. Flowering stems are rounded or somewhat flattened and flowers are small, inconspicuous and borne on an erect red-brown panicle. Ripe nuts are triangular in cross-section and reddish brown, 4 × 2 mm. Flowering or fruiting spikes are present year-round.



Similar species

Machaerina sinclairii has wider leaves than *Baumea complanata*, a broader panicle and usually grows on wet mudstone cliffs rather than in swamps.

Habitat

Swamps and swampy lake edges, sometimes amongst seasonally wet stands of manuka and can grow in shallow, running water.

Distribution

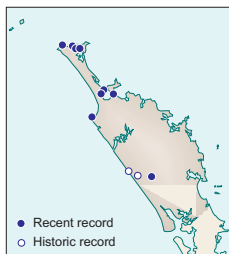
Once known from the northern North Island, but now confined to Te Pahi, Taheke, Ngawha, Waipoua and Dargaville in Northland.

Threats

Overshading and competition from other plants; drainage of swamps.

Baumea complanata. Photo: L.J. Forester.

Calochilus aff. *herbaceus* (CHR 65825; Kaimaumu)



Status

Nationally Critical

Description

A strap-leaved, bearded orchid to 0.3 m tall. Flowers are green to yellow with red markings and two dark ‘eyes’ on the hood; the labellum has a distinctive red beard with a short, naked tip and two hairless, raised ridges. Some flowers lack pigment, and are green and white. Flowers appear in spring to summer.

Similar species

Looks similar to *Thelymitra* spp. when in leaf or bud. Other *Calochilus* spp. are similar but lack the dark eyes on the hood and the two hairless ridges on the labellum.

Habitat

Scrub, swamps and along roadsides.



Distribution

In New Zealand *C. aff. herbaceus* is confined to Northland, where the major stronghold appears to be Kaimaumu; also reported from Te Pahi, Lake Ohia, Maitahi and Aranga Swamp north of Kaihu. This species also occurs in Australia, where it is widespread.

Threats

Major threats include land clearing, wetland drainage, over-collection by orchid collectors and browsing by rabbits, hares and possums.

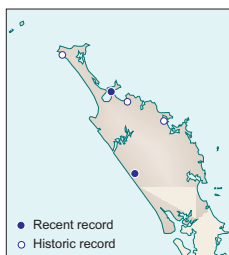
Comment

This orchid is strongly mycorrhizal and impossible to cultivate. Locations should be kept confidential as there is a risk that it may be taken by orchid collectors.

Calochilus aff. *herbaceus*. Photo: I. St George.

Centipeda minima subsp. *minima*

sneezeweed



Status

Nationally Critical

Description

A prostrate, strictly annual, bright green, creeping herb, with many slender, finely hairy basal stems usually 50–100 mm long. Leaves are 3–15 mm long, mostly without hairs, and either entire or with a few large teeth on their edges. Flower heads lack stalks and are 2–4 mm diameter. Seeds are up to 1.4 mm long.

Similar species

The other three native species of *Centipeda*, which are much larger plants. Distinction between these species and *C. minima* subsp. *minima* is not easy. As a rule *C. minima* subsp. *minima* is a strict annual, much smaller in all parts, with bright green leaves that are roughly kite-shaped in outline, and only sparingly (though deeply) toothed toward the leaf apex.

Habitat

Wet, or dried out margins of lakes, ponds and streams; swamps and waste places. It cannot tolerate any competition, so grows in the most open sites it can find. The largest recently discovered populations in New Zealand are around rubbish dumps and poorly drained airstrips.

Distribution

Scarce. Past distributions have been confused by the failure to recognise that there were three other species present in New Zealand. Recent records have come from the North and South Islands, with most records from the Waikato north. In Northland, it is known from Kaiwi Lakes and Karikari Peninsula.

Threats

The major threats come from aggressive wetland weeds, such as mercer grass, which rapidly smother the open ground that this species

favours. *Centipeda minima* supsp. *minima* is weedy and opportunistic and so can potentially be found anywhere there is suitable muddy, open ground.

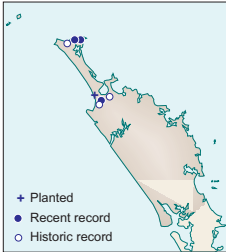


Centipeda minima.

Photo: P.J. de Lange.

Christella dentata sensu stricto

soft fern



Status

Nationally Critical

Description

A creeping fern to 1.6 m tall, with velvet-textured fronds. The frond leaf is pale green, soft, oblong to lance-shaped, from 300–1000 × 130–400 mm. Frond stalks are brown, 200–600 mm long becoming green and usually covered in slender hairs between the frond leaves. Primary pinnae (frond leaflets) are arranged in pairs, up to 150 mm long by 20 mm wide; usually with the lower most two to four pairs slightly smaller. Secondary pinnae (lobes on the leaflets) are oblong, and usually less than 10 mm long. Up to seven pairs of sori are produced on each secondary pinna, about halfway between the margin and the midrib. Each sorus is covered by heart- to kidney-shaped indusium.

Similar species

Cyclosorus interruptus is similar but has harsh, hairless, wiry, olive green fronds and less deeply divided leaflets. *Christella* aff. *dentata* (b) (AK 126902; “thermal”) has an upright or very shortly creeping stem (rhizome), doesn’t grow as tall (290–1050 mm), or have as long frond leaves (200–700 × 80–250 mm) and grows in swamps of the Far North and along the edges of geothermally active streams and pools (P. Brownsey, pers. comm. 2003). *Deparia petersenii* can also look similar but has a shorter frond.

Habitat

Swampy areas, in light shade.

Distribution

In New Zealand, known only from Northland: occurring at Awanui, Spirits Bay and Tom Bowling Bay. Also in tropical and semi-tropical regions of the Old World and Pacific.

Threats

Grazing, possibly insect damage. Competition from weeds.

Comment

This has been known as *Christella* aff. *dentata* (a) (CHR 472870; Kaitaia).

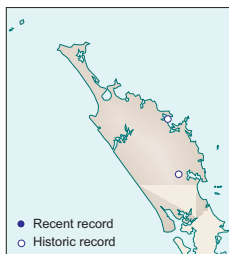


Christella dentata.

Photo: J.C. Smith-
Dodsworth.

Clianthus puniceus

kakabeak; kowhai ngutukaka



Status

Nationally Critical

Description

A sprawling, softly woody shrub up to 2 m tall. Leaves are alternately arranged, dull, grey-green coloured and are made up of many small, round or oblong leaflets. Flowers are salmon-red scarlet or white, 50–80 mm long, borne in clusters of up to ten. Seed pods are black, up to 80 mm long and contain many greenish-black seeds. Flowering occurs from July to December and pods develop in January.



Clianthus puniceus.
Photo: J.R. Rolfe.

Similar species

Kowhai (*Sophora* spp.) have smaller leaves and leaflets and yellow flowers. *Clianthus maximus* has dark salmon-red, orange-red or occasionally deep pink flowers which are larger, and larger leaves and leaflets which are a bright, glossy green.

Habitat

Bluffs and coastal cliffs; river and lake margins and successional shrublands.

Distribution

Endemic to the northern North Island. Currently known only from the Kaipara Harbour, and is presumed extinct in Northland. Historical records for Northland are from the late 19th century at the Bay of Islands (Kirk 1870) and Maungatapere (Carse).

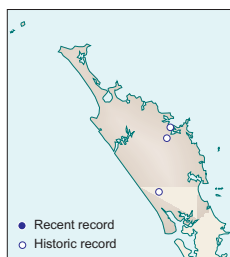
Threats

Everything browses this plant! Cattle, deer, goats, and possums have wiped out populations. Rats browse seeds and snails browse seedlings; insects cause defoliation (leaf miner) and dieback (lemon tree borer), and eriophyid mites cause galls known as witches' broom.

Comment

Plants are easily propagated from seed and cuttings, but are relatively short lived. Kowhai ngutukaka was formerly cultivated by Maori.

Crassula bunua



Status

Nationally Critical

Description

A tiny, creeping, succulent herb that forms interlacing mats. Leaves are arranged in opposite pairs, bright yellow-green, elliptic or oval shaped, fleshy and up to 2 mm long.

Similar species

The leaves of *Callitriche* spp. and bedstraw (*Galium* spp.) are not fleshy and bedstraw leaves occur in whorls rather than opposite pairs. Other *Crassula* spp. look similar, but differ in having leaves that are either larger and more fleshy, or smaller or more pointed.

Habitat

Wet, muddy, open ground and amongst moss, beside rivers, streams, drains and waterfalls.

Distribution

Historically, this plant occurred from Northland to Te Anau and on the Chatham Islands. In Northland, *C. bunua* was known from the Wairoa River, the Bay of Islands and Kawakawa River however searches have failed to relocate any populations.

Threats

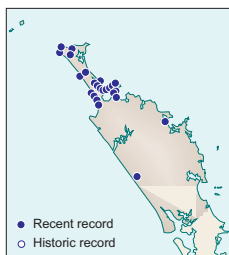
Weed competition and habitat modification.



Crassula bunua.

Photo: A.J. Townsend.

Cyclosorus interruptus



Status

Gradual Decline

Description

A creeping fern with harsh, hairless, olive-green fronds to 800 mm long. Frond stalks are slender, up to 600 mm long by 5 mm wide, almost black at the base but becoming brownish. Frond leaflets (pinnae) occur in 9–15 pairs; the basal pair is larger and sickle-shaped with each successive pair becoming shorter. The spores are found in closely packed sori distributed nearer the midrib than the leaflet edge. The sorus cover (indusium) is heart or kidney-shaped.

Similar species

Could only be confused with *Pneumatopteris pennigera* with which it sometimes grows. However, *P. pennigera* has longer, narrower pale green, soft hairy fronds of even length and shape that wilt easily. *Pneumatopteris pennigera* usually occupies different habitats, being found on stream-banks in kahikatea remnants, and on shaded limestone overhangs and cave entrances.



Habitat

Usually occurring amongst swampy, coastal sedges and scrub but also found inland on geothermally active sites. Often seen as upright fronds amongst other wetland vegetation.

Distribution

Indigenous to the northern North Island, from near Kaitiaki to Taupo and Mayor Island. Also known from throughout the tropical and warm-temperate Pacific, where it is not threatened.

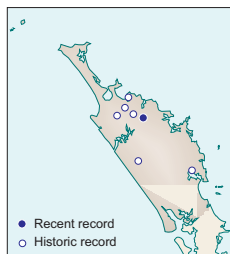
Threats

Drainage, land development and fern collectors.

Cyclosorus interruptus. Photo: J.C. Smith-Dodsworth.

Dactylanthus taylorii

wood rose; dactylanthus; pua o te reinga



Status

Serious Decline

Description

A root parasite forming a warty dark brown clump up to 300 mm in diameter at or just below the soil surface. Plants are either male or female and produce flowers from January to April. Flowering shoots are fleshy, un-branched, up to 200 mm long and covered with overlapping pinkish brown scale-like leaves to 15 mm long. When these shoots emerge, the uppermost scales part to expose many tiny flowers. Male flowers produce white pollen while female flowers are red-brown. The inflorescences of either sex produce nectar which can be detected by its characteristic fragrance. Fruits are about 2 mm long. Fruiting occurs from February to May.

Similar species

None. Root galls, rhizobium nodules and other growths on exposed roots and basal tree trunks have been collected as wood rose. *Dactylanthus* can be distinguished from these by the presence of small circular scars where previous flowering buds were attached. Frequently, the remains of the scale like leaves can also be seen.

Habitat

Second growth forest, usually parasitic on a number of native broadleaved species including towai, lancewood, five finger, pate, mapou, *Pittosporum* and *Coprosma* species

Distribution

Endemic to the North Island. In Northland, currently known only from Puketi Forest where it is parasitic on the roots of towai. Cheeseman (1914) recorded it from “Wooded Plateau between Hokianga and the Northern Wairoa, Percy Dedlington”, and “nr. Source of Hoteo River, Kaipara, R. Glanvilles”. Unconfirmed reports of plants at Berghan Point, Coopers Beach, Paranui, Omahuta, Mangamuka and Parahaki, also exist; and *dactylanthus* pollen was found in short-tailed bat droppings at Omahuta.

Threats

Forest clearance, collectors, pigs, possums and rats feed on (and damage) the flowers and plants.

Comment

Dactylanthus is difficult to find as plants are often underground and only the unbrowsed flowers are visible. Locations should be kept confidential because there is a risk that collectors might take it.



Dactylanthus taylorii male flowers. Photo: A.Holzapfel.



Dactylanthus taylorii young tuber. Photo: A.Holzapfel.