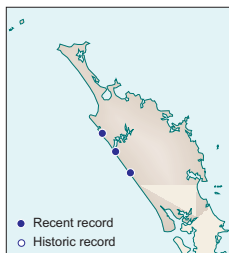


Leptinella rotundata

Northland button daisy



Status

Gradual Decline

Description

A small hairy, sparingly branched, creeping herb with thick yellowish green leaves. Leaves are up to 15 mm long, with a long stalk and a rounded, sparsely hairy leaf with toothed margins. Flower stems are up to 60 mm long, and have a single yellow-green, button-like flower head. Flowering occurs in summer on separate male and female plants. The seed is smooth and brown, 1.9 × 1.1 mm in diameter.

Similar species

None

Habitat

Coastal cliffs and seepages amongst low vegetation, sometimes associated with *Fuchsia procumbens*.



Distribution

Endemic to Waitakere Range (west of Auckland) and three sites on the west coast of the Northland Peninsula: Maunganui Bluff; South Hokianga Heads and Mitimiti.

Threats

Erosion, stock damage and competition from weeds are the major threats. Skewed sexual ratios have been postulated for some populations, e.g, Hokianga. Collection from horticultural enthusiasts has also threatened some populations.

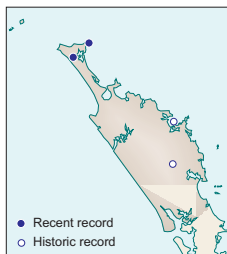
Comment

The plant is easily propagated from small pieces.

Leptinella rotundata. Photo: S.P. Courtney.

Linguella puberula

dwarf greenhood



Status

Nationally Critical

Description

A slender, silvery-green, rosette-forming, greenhood orchid to 150 mm tall (but usually much less). Plants often exhibit a 'washed-out' colouration. The rosette leaves are trowel-shaped with winged petioles and contrast strongly with the stem leaves, which are small and closely sheathing. The stem is faintly hairy. Flowers are usually solitary, have long club-shaped 'antenna' (lateral sepals), a short 'beak' (dorsal sepal) and oblong 'tongue' (labellum) and stigma.

Habitat

Clay banks beneath light scrub (especially manuka) and gumland.

Similar species

Diplodinium (Pterostylis) trullifolium and *Diplodinium (P.) alobulum* are similar but have much smaller, trowel or heart-shaped basal leaves without winged petioles and larger stem leaves. The rosette leaves of *D. trullifolium* are further distinguished by embossed vein patterning.

Distribution

Endemic to New Zealand, known from Northland (Te Pahi, and Silverdale in the Kaipara), Coromandel, Wellington, Nelson and near Westport. Old record from Maungatapere.

Threats

Habitat loss and degradation through weed encroachment, natural regeneration of forest species, and pig rooting are the main threats. Also, over-collection by botanists and enthusiasts has occurred in the past.

Comment

This plant is predominantly self fertilising but does not appear to set seed often. It rarely persists at any one locality for more than a few years. Indications are that this species has a fire ecology, requiring periodic burns to retain the open gumland scrub habitat it requires.

This orchid has been known in New Zealand as *Pterostylis puberula*, and *P. nana*. There are still doubts about whether *Linguella puberula* is really endemic to New Zealand, certainly its restriction to gumland scrub habitats (an artificial habitat created by frequent burning on impoverished soils) is an unusual habitat requirement for an endemic orchid.

Locations of this orchid should be kept confidential as there is a risk that it may be taken by orchid collectors.

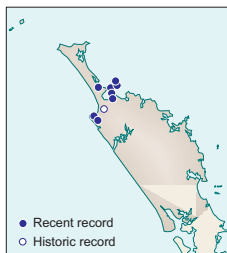


Linguella puberula.

Photo: J.C.Smith-Dodsworth.

Lycopodiella serpentina

bog clubmoss



Status

Nationally Vulnerable

Description

A diminutive clubmoss with sparingly branched, tightly appressed stems. Leaves are spirally arranged around the stem, dull green and orange tinged and with a needle-like, pointed tip. Solitary cones are borne on stems up to 40 mm long.

Similar species

Lycopodiella lateralis which is common in dense gumlands and bogs, differs by having non-stalked (or shortly-stalked) cones borne on the sides of the erect stems. Young *Lycopodiella cernua* plants could be confused with bog clubmoss but it has aerial stems that loop across ground with many downward facing branches, giving it a candelabra-like appearance.

Habitat

Wet, open sites and rough pasture; peat bogs, on poor soils, amongst ferns and other peatland plants on small hummocks.

Distribution

Indigenous. Possibly extinct in Australia (E. Cameron pers. comm.) and also New Caledonia (P. Morat, pers. comm.). In New Zealand, known from the northern North Island from Northland to the Waikato. In Northland, it occurs at Ahipara, Kaimaumau, Karikari and in Waikato, on the Hauraki Plains with historical records from Lake Tangonge (near Kaitaia).

Threats

Wetland drainage, land development, stock trampling and fertiliser application are all threats to this fern ally. The species is also a frequent target of fern collectors.

Comment

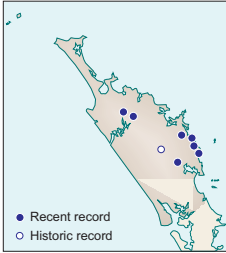
Plants often look sick when in fact they are not.

Lycopodiella serpentina.
Photo: J.C. Smith-Dodsworth.



Marattia salicina

king fern



Status

Serious Decline

Description

A large, robust fern with fronds to 5 m tall arising from a stout, starchy base that was eaten by the Maori. The cane-like leaf stalks are green, 1–3 m long, and have a large basal, ear-like lobe that protects the uncoiling frond. The dark glossy green (or yellow-green in stressed sites) fronds are up to 4 m long by 2 m wide. Frond leaflets (secondary pinnae) are oblong and taper towards the tip. Midribs of the secondary pinnae are swollen at the junction with the main stem. Special boat-shaped sori called synangia bear spores in rows along the edges of the frond leaflet.



Marattia salicina.

Photo: A.J. Townsend.

Similar species

None

Habitat

Wet, shady gullies in dense bush.

Distribution

Indigenous to Australasia and the South Pacific (possibly elsewhere). In New Zealand it is found throughout the northwestern half of the North

Island from inland Wanganui northwards. In Northland, it is known from Pukenui, Mimiwhangata, Whananaki, Matapouri, Russell Forest, Mangamuka and Omahuta Forests. Historical records exist for Motatau from around the turn of the 19th Century.

Threats

Domestic stock browse the upper parts of the plant and pigs eat the starchy rhizome. Drought may be a potential threat as it wilts dramatically in dry weather. Over-collection by fern growers.

Comment

King fern is valued as a pot and garden plant so locations should be kept confidential.

Mazus novaezeelandiae subsp. *impolitus*

dwarf musk

Two infraspecific taxa are recognised:

1. *M. n.* subsp. *impolitus* f. *impolitus*
2. *M. n.* subsp. *impolitus* f. *birtus*

Status

Mazus n. subsp. *impolitus* f. *birtus* is Nationally Critical and *M. n.* subsp. *impolitus* f. *impolitus* is Serious Decline.

Description

A perennial, creeping herb with spoon-shaped leaves, 20–75 mm long in close-set rosettes. Flowers are white with yellow throat and flowering occurs in November. Fruit are capsules, which are enclosed in the remains of the flower; fruiting occurs from February to April.

Each form is distinguished by:

- *M. n.* subsp. *impolitus* f. *impolitus*: dull green leaves that are hairless or only sparsely hairy;
- *M. n.* subsp. *impolitus* f. *birtus*: dull, matt textured leaves with hairy margins and a brown marginal band.

Similar species

Closely allied to *Mazus pumilio* which has blue or lilac flowers and a finely toothed leaf margin. *Mazus novaezeelandiae* subsp. *novaezeelandiae* is similar in all respects but has shiny green leaves.

Habitat

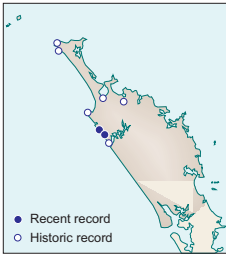
M. n. subsp. *impolitus* f. *impolitus* grows mainly in coastal sites particularly damp hollows and sand flats; also inland in river gravels in Otago;

M. n. subsp. *impolitus* f. *birtus* is known from kahikatea forest.

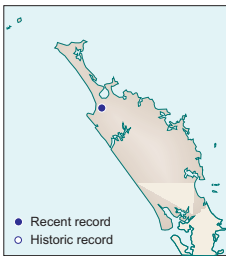
Distribution

Endemic to New Zealand.

M. n. subsp. *impolitus* f. *impolitus* is found from near Cape Maria van Diemen (historically) to Dunedin. In Northland, it is also known from north of the Hokianga Harbour.



Northland distribution of *Mazus novaezeelandiae* subsp. *impolitus* f. *impolitus*.



Northland distribution of *Mazus novaezeelandiae* subsp. *impolitus* f. *birtus*.

M. n. subsp. *impolitus* f. *birtus* is restricted to the northern North Island but is now only known from near Kaitaia in Northland.

Threats

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

Mazus novaezeelandiae
subsp. *impolitus*.
Photo: A.J. Townsend.

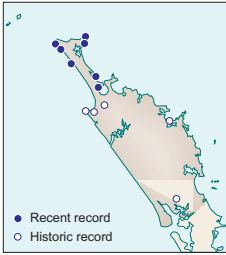


Mazus novaezeelandiae
subsp. *impolitus* f. *birtus*.
Photo: P.J. de Lange.



Ophioglossum petiolatum

stalked adder's tongue



Status

Nationally Endangered

Description

A distinctive plant forming small colonies. The shortly stalked, fleshy heart-shaped fronds are 15–100 mm long by 6–34 mm wide, yellow-green, distinctly broader at the base and only gradually tapering toward the apex. The single wire-like fertile spike is up to 200 mm long, and is terminated by 15–45 pairs of spore-bearing capsules.

Similar species

Ophioglossum coriaceum which is generally smaller and has a narrower, oval-shaped and stalk-less sterile frond. The fertile spike is much shorter and carries fewer pairs (7–15) of spore-bearing capsules.



Habitat

Margins of swamps and streams.

Distribution

Indigenous, widespread in tropical and subtropical countries and islands of the Pacific Region extending towards India. Historically in New Zealand this species was known from North Cape to Westland and the Chatham Islands, but is now very scarce. Recent records in Northland are from Kaipara, Kaimaumu, Te Paki and Aupouri Peninsula.

Threats

Habitat modification (wetland drainage and weed invasion), shading, natural succession, fern collectors.

Comment

Locations of this fern should be kept confidential as there is a risk that it may be collected by enthusiasts.

Ophioglossum petiolatum. Photo: P.J. de Lange.

Peraxilla tetrapetala

pirirangi

Status

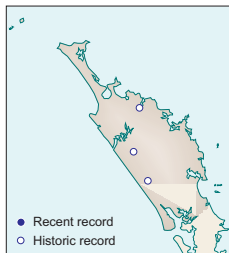
Gradual Decline

Description

A semi-parasitic, bushy shrub to 1 m across, which is joined to its host by several attachments (haustoria). Leaves are on short stalks, oppositely arranged 10–50 mm long, and thick and fleshy, with a rhombic shape and usually with some blisters on the surface. Flowers have four petals and are red or yellow at the base and shading gradually to crimson at the tips. Flowering occurs in December; fruiting in April.

Similar species

Peraxilla colensoi has scarlet flowers and larger leaves without blisters. *Trilepidea adamsii* has large yellow, bell-shaped flowers tinged with red and green, and diamond-shaped leaves without blisters. *Ileostylus micranthus* has tiny yellow-green flowers with a 'bent' style; *Tupeia antarctica* also has tiny yellow-green flowers and white fruit.



Habitat

Forest. Hosts in Northland include towai, pohutukawa and *Quintinia*.

Distribution

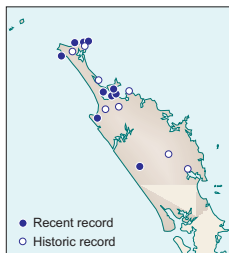
Endemic to New Zealand, occurring throughout the North and South Islands. Only one plant has been seen recently in Northland in the Wekaweka Valley near Waipoua (on towai) but this has since died. There are also historical records from near Dargaville.

Threats

Possum browse; loss of native bird species involved in pollination; land clearance.

Peraxilla tetrapetala. Photos: C. Jones.

Phylloglossum drummondii



Status

Nationally Endangered

Description

This is the smallest New Zealand fern ally. It is only above ground in winter and early spring (being at its best in July and August) and dies down to an underground tuber for the remainder of the year. Sterile leaves are produced in rosettes up to 40 mm across; they are needle-like with pointed tips and slightly fleshy. The fertile stem is up to 40 mm long, and bears fertile leaves in a yellowish, solitary terminal cone 4×8 mm. Dormant plants often can be felt as small spiky rosettes amongst moss on the ground.

Similar species

None

Habitat

Favours open clay soils or short scrub and grows in colonies, often of several hundred plants. Seems to prefer recently burnt areas under short cover with little competition from other plants.

Distribution

From North Cape to the Waikato but now confined to gumland areas in the Far North, Karikari and near Dargaville. Also in Australia.



Threats

This plants habitat is becoming very restricted due to land development. Shading from shrubs as sites change into scrub and forest is a problem which requires management (slashing) in some areas.

Phylloglossum drummondii.

Photo: J.C. Smith-Dodsworth.