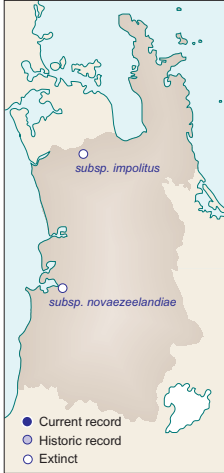


Mazus novaezeelandiae

dwarf musk



PHRYMACEAE

In the Waikato region two taxa, *M. novaezeelandiae* subsp. *impolitus* and *M. novaezeelandiae* subsp. *novaezeelandiae*, have been recorded.

Status

Serious Decline (both taxa)

Description

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 occurs in November. Fruiting capsules are found from December to April. *Mazus novaezeelandiae* subsp. *impolitus* is distinguished from subsp. *novaezeelandiae* by its dull green leaves that are hairless or only sparsely hairy.

Similar species

Mazus pumilio which has blue or lilac flowers and a finely toothed leaf margin. This predominantly Australian species is known in New Zealand from only one site in Northland (Heenan & Forester 1997), but is now sold by many garden centres as *M. novaezeelandiae*.

Habitat

M. novaezeelandiae subsp. *impolitus* prefers coastal sites, particularly damp hollows and sand flats; but has also been found inland on river gravels in Otago.

M. novaezeelandiae subsp. *novaezeelandiae* prefers lowland, wet, sometimes swampy forest, pasture and is occasionally found on forest margins.

Distribution

Endemic to New Zealand.

M. novaezeelandiae subsp. *impolitus* was gathered by Donald Petrie from kahikatea forests near Mercer during the 1800s, while *M. novaezeelandiae* subsp. *novaezeelandiae* was recorded from Rakaunui Peninsula, near Kawhia, during the 1980s. At neither location have plants been seen recently.

Threats

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

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



Mazus novaezeelandiae
subsp. *novaezeelandiae*.
Photo: J.R. Rolfe.



Melicytus flexuosus

VIOLACEAE

Status

Gradual Decline

Description

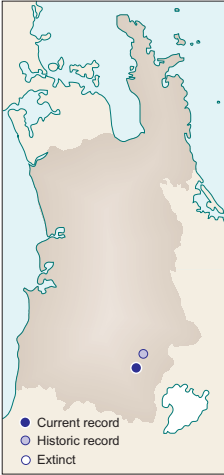
A shrub to 5 m tall, with interlaced, almost leafless, whip-like, grey-green branchlets. The surface of the branchlets is pitted with lots of tiny white spots (lenticels). The 10–20 mm long linear leaves, if present, are dark green to brown-green, entire or slightly toothed. Seedlings have narrow, brown leaves with a few coarse teeth or lobes along their leaf edges. The strongly perfumed flowers are pale yellow and approximately 2–3 mm diameter. The fruit is a berry, 3.5–5.0 mm diameter. Flowering occurs from August to November and fruiting from February to May.

Similar species

None.

Habitat

Fertile alluvial terraces and flood plains in sites prone to heavy frosts and summer drought; often on forest margins and amongst scrub in frosty hollows.



Melicytus flexuosus.
Photo: S.P. Courtney.

Distribution

Endemic to New Zealand. It is restricted to the Pureora-Taihape region in the North Island but widespread throughout the South Island. The northern limit for this species occurs in the Waikato at Pureora.

Threats

Habitat loss through development, particularly forestry and rural development, weed encroachment.



Melicytus flexuosus.
Photo: A.J. Townsend.

Myosotis petiolata var. *pansa*

BORAGINACEAE

Status

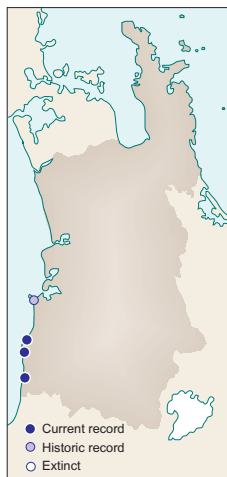
Nationally Endangered

Description

A native forget-me-not that forms rosettes up to 200 mm across with flowering stems to 300 mm tall. Leaves are spoon-shaped, variable in size (the leaf blade of Waikato plants is usually up to 35 mm long by 25 mm wide), covered with short stiff hairs that lie flat, with a petiole as long as the blade of the leaf. There are often several multi-flowered inflorescences per plant. Flowers 10–15 mm in diameter, white with yellow scales around the throat.

Similar species

Myosotis forsteri and *M. venosa* are similar species but do not occur in the narrow coastal zone that *M. petiolata* var. *pansa* occupies. *M. petiolata* var. *pottsiana* is also similar, but is not found outside of the Bay of Plenty and occurs on vertical rock walls in river gorges.



Habitat

Open, coastal forest, scrub or flaxland in semi-shaded sites, usually right at the coast, rarely 300 m from the sea.

Distribution

Endemic to the western North Island from Northland to Taranaki. In

Myosotis petiolata var. *pansa*.

Photos: (left) S.P. Courtney; (right) K. Broome.

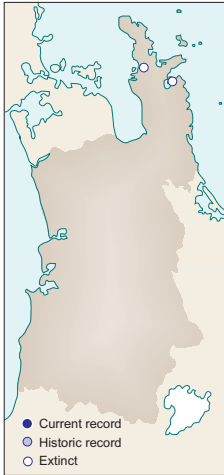
Waikato, it is known from three coastal sites in the Maniapoto Area.

Threats

Loss of habitat through coastal development; susceptible to goat, deer and pig impacts; competition from weeds, especially Mexican devil.

Olearia pachyphylla

thick-leaved tree daisy



ASTERACEAE

Status

Nationally Endangered

Description

A small tree to 3 m tall with greyish-brown, flaking bark on its trunk. Leaves 70–130 × 50–65 mm, broadly oval but curved like a saddle; pale grey-green above and covered with white felt below. The leaf margins have small regularly spaced teeth. Flowers are held in open clusters which are up to 25 mm long. Flowering occurs from January to April and fruiting from March to May.

Similar species

Olearia furfuracea and *O. townsonii* are similar species which both occur on the Coromandel Peninsula. Both these species grow taller (up to 5 m) but the best way to distinguish them from *O. pachyphylla* is by the number, shape, and ornamentation of the scales (phyllaries) that sit at the base of the flower heads. *O. pachyphylla* has 35–40 of these scales surrounding the flower heads while *O. townsonii* has a series of 3–4 rows and *O. fufuraceae* has 2–3 rows of scales. The scales of *O. pachyphylla* are very diagnostic. They are densely covered in long, grey silky hairs.

Habitat

Amongst low scrub on coastal cliffs and stream banks.

Distribution

Endemic to the northern North Island, from Coromandel Peninsula to East Cape; very uncommon in the Waikato. It was known from rock outcrops near the summit of the main range dividing Coromandel township from Whangapoua Harbour, and more recently (1992) it has been collected from bluffs near Cook's Beach.

Threats

Habitat loss through coastal development, weed encroachment.

Comments

Plants have not been seen at the Cook's Beach site in recent years but specimens from the last gathering are held in cultivation. The rarity of the species in the Waikato is peculiar and the possibility that these isolated occurrences stem from deliberate or accidental plantings should be considered.



Olearia pachyphylla.

Illustration by A.L. Eagle.

Ophioglossum petiolatum

stalked adder's tongue

OPHIOGLOSSACEAE

Status

Nationally Endangered

Description

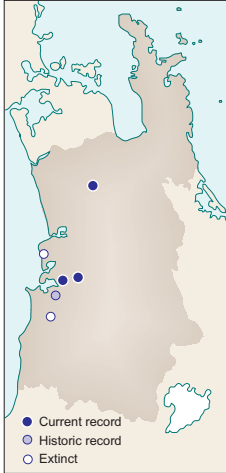
A distinctive plant forming small colonies. The shortly stalked, fleshy heart-shaped fronds are 15–100 mm long by 6–34 mm wide, yellow-green, distinctly broader at the base and only gradually tapering toward the apex. The single wire-like fertile spike is up to 200 mm long, and is terminated by 15–45 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 (7–15) pairs 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 the Waikato are from the Huntly Basin and Kawhia area.

Threats

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

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

Picris burbidgei

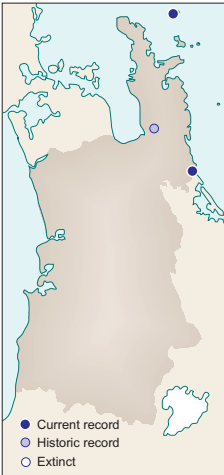
ASTERACEAE

Status

Nationally Endangered

Description

A 0.5–1.2 m erect, sparingly branched herb. With the exception of the flowers, all parts copiously covered in very harsh, rasp-like bristles. The stout, basally woody, green to purple coloured stems are up to 15 mm diameter, and ribbed lengthwise. If cut or bruised the hollow stem exudes clear, watery fluid. The green to yellow-green basal leaves are 100–200 mm long by 10–25 mm wide. Upper stem leaves are 20–40 mm long. The upper portion of the plant bearing the inflorescence is branched. The abundantly produced yellow dandelion-like flowers are subtended by numerous rows of scales, which collectively form a tube from which the yellow petals (ray-florets) emerge. These scales are narrowly lance-shaped, and possess a single row of teeth-like hairs on each midrib. The brown to black cylindrical seeds have a distinctive net-like patterning on their surface, and are wind-dispersed.



Similar species

Most frequently confused with oxtongue (*Helminthotheca echioides*) which also has hairy, harsh bristles but can be clearly distinguished by the different arrangement of the floral bracts (see illustration) and its more robust stems, numerous branches and larger basal leaves. This species may also be confused with catsear (*Hypochoeris radicata*) and autumn hawkbit (*Leontodon autumnalis*), from which the *Picris* differs in its taller habit, with leaves present right along the stems and flowering stalks, and by the distinctive rasp-like bristles on the leaves.

Habitat

Coastal or lowland environments on open ground or amongst low scrub.

Picris burbidgei. Photo: P.J. de Lange.

Distribution

Probably confined to northern North Island and the Chatham Islands (also Hawaii, Norfolk Island and Australia), but previously known from much of the lowland and coastal parts of the northern half of the North Island. Within the Waikato, it is now only known from Cuvier (Repanga) Island and north of Waihi Beach (just outside the Waikato Conservancy boundary). There are historic records near Thames.

Threats

Habitat loss through coastal development, succession, displacement by weed invasion, weed control.



Picris burbidgei.

Photo: G.M. Crowcroft.

Illustration by A. Holzapfel.

