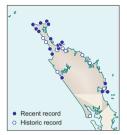
# Pimelea arenaria sensu stricto

#### sand daphne



#### Status

Gradual Decline

#### Description

A low spreading, silky-haired shrub in the daphne family, that grows to 400 mm tall. Often, branches are buried in sand so one plant can form a mound and cover quite a large area. Branches are usually erect and up to 400 mm high. The branchlets and undersides of leaves are densely covered in hairs that lie flat, giving it a silvery appearance. Leaves are elliptic to oblong but sometimes rounded, 5–7 mm long by 3–5 mm wide.

#### Similar species

*Pimelea prostrata* is similar but the leaves are hairy on both sides and it has a sprawling habit. *Pimelea tomentosa* is also similar but has an upright habit, and leaves that are linear to lanceolate.



### Pimelea arenaria. Photo: C.C. Ogle.

### Habitat

Coastal sand dunes.

#### Distribution

This plant is endemic to the North Island and has two distinct forms, of which one is further restricted to Northland

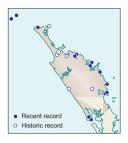
#### **Threats**

The major threats are habitat loss (through development for housing and plantings to stabilise moving sand) and vehicles on beaches disturbing sand dunes.

#### Comment

The tough, fibrous bark was formerly used by Maori as cord.

### Pimelea tomentosa



#### Status

Serious Decline

#### Description

An erect, grey-green, leafy shrub  $\leq 1$  m. Branches are slender, and straight, with prominent leaf scars. Bark is orange-brown. Young branchlets have whitish hairs. The grey-green, soft lance-shaped leaves are up to 25 mm long, with pale silky hairs on their undersides. The blacky fleshy fruits are very conspicuous, terminating the branch ends wherever flowers have been present. Flowering and fruiting specimens may be seen throughout the year.

#### Similar species

*Pimelea prostrata* is a common plant of coastal cliffs and shrubland vegetation. It has several variable forms but the leaves are smaller



 $(3-6 \times 1-3 \text{ mm})$  than *P. tomentosa*, its habit prostrate to sprawling and it has smaller, less conspicuous white fleshy fruits. Sand daphne (*Pimelea arenaria*) has a similar habit but only occurs in dunes and dune hollows, has shorter, more rounded leaves than *P. tomentosa* and smaller red fruits.

#### Habitat

Open grassy cliff tops, in scrub and other seral habitats

#### Distribution

Endemic to New Zealand, occurring throughout the North Island and northern South Island. In Northland, it is locally common on both east and west coast, especially around Cape Brett and southwards on the east coast.

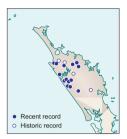
#### **Threats**

Habitat loss through development, land clearance, succession and competition with weeds.

Pimelea tomentosa. Photo: A.J. Townsend.

## Pittosporum kirkii

#### Kirk's kohuhu



#### Status

Serious Decline

#### Description

A small, openly-branched shrub to 4 m tall with stout, purplish branches. Leaves are crowded towards the tips of the branch on 1 cm long stalks. The leaf blade is thick and fleshy, and broadens towards a rounded tip; leaves are 50-100 mm long by 20-30 mm wide. Flowers are either solitary or in clusters of up to four at the tips of branches, bright yellow and appear in November. Fruit are oval, woody capsules up to 40 mm long that split in half to reveal black seeds sitting in a sticky yellow pulp, and appear in January.



Pittosporum kirkii.
Photo: E. Cameron.

#### Similar species

Pittosporum cornifolium is also usually epiphytic, but the leaves are usually shorter, broader and much thinner and the inside of the capsules are shiny and bright orange. Brachyglottis kirkii is also usually epiphytic and can look similar. It occurs in the same habitat but it has easily crushed, lobed or shallowly toothed leaves and white daisy flowers.

#### Habitat

Lowland to montane forest, usually epiphytic but occasionally terrestrial

#### Distribution

Endemic to the northern half of the North Island, from Mangonui to Raetihi (interpreted from Allan 1961). In Northland, appears to be restricted to larger mature forest blocks.

#### **Threats**

Forest clearance and wild animal browse.

# Pittosporum obcordatum

#### heart-leaved kohuhu



#### Status

Nationally Endangered

#### Description

A shrub or small tree to 5 m tall with interlacing, slightly drooping branchlets. Leaves are alternate and vary on juvenile and adult plants. Juvenile leaf shape is usually long and narrow with a lobed leaf tip, up to  $15\times 5$  mm, with smooth or lobed leaf edges. Colour is dark greygreen with brownish mottles or blotches. Adult leaves are oval or heart-shaped, up to  $20\times 15$  mm (usually less), grey-green in colour without blotches. Flowers occur in clusters of four to eight, have yellow petals often edged with red and appear in October-November. Seed is contained in small egg-shaped capsules that appear in January and split in half. Males and females occur on separate plants.

#### Similar species

There are many small-leaved shrubs that look similar. Weeping mapou has small dark dots (glands) on its leaves and weeping branchlets. Pokaka has distinctive projections at the ends of the veins along the leaf edge (visible with a hand lens). Rohutu has opposite leaves, many gland dots and square or ribbed stems. *Coprosma* spp. have opposite leaves and fleshy berries. *Melicytus micranthus* has leaves with slightly toothed margins and whitish blotches at their bases. *Pseudopanax anomalus* leaves are similar in shape to adult *P. obcordatum* leaves but with dark blotches at their bases and an antler-like branching pattern.

#### Habitat

Lowland, divaricating shrubland and podocarp forest, often preferring swampy soils, which are waterlogged and frosted in winter.

#### Distribution

Endemic to the North and South Islands, scattered from Kaitaia to Manapouri. Known from two localities in Northland: Kaitaia and Hikurangi Swamp.

#### Threats

Land clearance, drainage, grazing and weed invasion have severely modified habitats. Habitat stabilisation through flood control programmes have also disrupted seedling establishment.

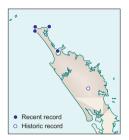
#### Comment

At least 1000 *P. obcordatum* plants occur at Hikurangi Swamp, so this would be New Zealand's second largest population.



Pittosporum obcordatum.
Photos: (left) A.J. Townsend;
(right) L.J. Forester.

### Plumatochilos tasmanicum



# Description

Serious Decline

Status

A distinctive greenhood orchid with a leafy rosette and a usually single flower. Rosettes have eight to 14 leaves, each up to  $25 \times 7$  mm. The flowering plant is usually about 100 mm tall (but can be up to 250 mm), with a thin stem (1.5 mm diameter) and has a few leaves sheathing it. The tubular helmet shaped green flower is upright. Protruding from the flower is a very distinctive yellow, feathery, pendulous lip (labellum) terminated by small brown or red ball-like callus, below which, sits a pair of forked sepals that are bent abruptly downwards. The enclosing petals are translucent pale green with darker green veins. Flowering occurs from October to December.

#### Similar species

None

#### Habitat

Scrub or forest margins, in damp mossy areas or drier more exposed sites. Often under gorse or manuka on clay hillsides.

#### Distribution

Known from Northland (Te Paki and Kaimaumau), Coromandel, Wellington and Nelson. Also in Victoria and Tasmania where it is widespread.

#### **Threats**

Lack of fires, competition from weeds (gorse) and over-collection by orchid enthusiasts are the main contributors to this orchid's decline. This species requires frequent disturbance, usually from fires to maintain an open habitat.

#### Comment

This orchid has previously been known as *Pterostylis tasmanica*. Locations of this orchid should be kept confidential as there is a risk that it may be taken by orchid collectors.



Plumatochilos tasmanicum.
Photo: A.J. Townsend.

# Pomaderris phylicifolia



#### Status

Nationally Endangered

#### Description

A many-branched shrub to 1.5 m tall. Young stems and buds are usually covered in dense white hairs. Leaves are oblong, 10–25 mm long, and folded or rolled over on the edges with simple hairs on the upper surface and star-like hairs on the under-surface. Flowers are 4–5 mm diameter, grouped in clusters, cream to pale yellow and lack petals. Fruit is a 4 mm long capsule. Flowering occurs from October to November and fruiting from November to January.

#### Similar species

*Pomaderris* aff. *phylicifolia*, which has a different chromosome number (2n=36) to *P. phylicifolia* (2n=48), has leaves that are usually less than 10 mm long and recurved almost to the midrib.

#### Habitat

Mainly coastal, nutrient poor, open sites amongst manuka and sedges, clay banks and roadsides. This plant is a naturally short-lived, early coloniser of slips and disturbed areas.

#### Distribution

Known from Northland (in the Far North at Ahipara, Te Kao, Spirits Bay Road and Surville Cliffs Road) to the Hauraki Gulf. Also in Victoria.

#### **Threats**

Use of herbicides along roadsides and goat browsing are the main causes of decline. Habitat loss through succession, causing shading as a canopy develops.

#### Comment

This species was called *Pomaderris polifolia* in Collins & de Lange (1998) that name being a later synonym of *P. phylicifolia*. Another common New Zealand *Pomaderris*, *P.* aff. *phylicifolia*, has also been called *P. phylicifolia*, *P. phylicifolia* var. *ericifolia* and *P. ericifolia*. However, none of these names apply to the New Zealand plant, which, for the time being is apparently unnamed.

Pomaderris phylicifolia. Photo: G.M. Crowcroft.



# Prasophyllum aff. patens (AK 236408; New Zealand)



#### Status

Nationally Vulnerable

#### Description

An attractive, often floating orchid of peatbogs and their associated slow flowing streams, possessing strongly scented flowers (that smell like freesia). It has a single, rolled, leek-like leaf and a single, prominent spike to 900 mm tall, carrying from 3–20 flowers. Flower colour varies from pale yellow with a black or white labellum to greenish-red with a white labellum. The labellum is conspicuous and has a wavy margin. Flowering occurs from December to February.

#### Similar species

*Prasophyllum colensoi* generally does not grow as tall, has green or reddish flowers and is a grassland inhabitant.

#### Habitat

Slow-flowing or still water in acidic peat bogs, often amongst sedges (*Baumea* spp. and *Schoenus* spp.). Plants often grow on 'vegetation islands' with their roots barely touching the peat substrate.

#### Distribution

Endemic to the northern half of the North Island and Chatham Island

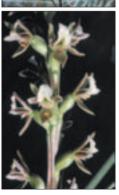
#### Threats

Over-collection by orchid enthusiasts, stock browse and pugging, pig rooting and wetland drainage are the main threats.

#### Comment

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

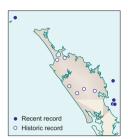




Prasophyllum aff. patens. Photos: E.A. Scanlen.

## Rorippa divaricata

#### New Zealand mustard cress



#### Status

Nationally Endangered

#### Description

A hairless perennial cress with a rosette, taproot and upright stems to  $1.5\,\mathrm{m}$  tall. Rosette leaves are  $100\text{-}160\times30\text{-}70\,\mathrm{mm}$ , with large, rounded lobes at their tips and edges that are shallowly or deeply toothed. Stem leaves are smaller, long and narrow or slightly broader and clasp the stem. Flowers are small with white petals and occur in clusters. Fruit are long capsules that split in half. Flowers appear from October to February and fruits from October to May. Plants may be either green or tinged red.

#### Similar species

Young fire-weeds can look similar but do not have the distinctive cress-like smell.

#### Habitat

A coloniser of freshly exposed or disturbed sites such as burnt forest, lake margins and petrel burrows.

#### Distribution

Endemic to the North Island and northern South Island. Occurs on some northern off-shore islands, e.g., Three Kings, Poor Knights and Hen & Chickens. Disappeared from mainland sites in Northland.



#### **Threats**

Susceptible to habitat loss from both natural regeneration and weed invasion (e.g. Mexican devil on Hen & Chickens). Diseases and predation by browsing animals may have accelerated its decline on the mainland, but it was probably never particularly common.

Rorippa divaricata.

Photos: (left) L.J. Forester; (above left) C.C. Ogle.

### Sebaea ovata



#### Status

Nationally Critical

#### Description

A small annual herb in the gentian family that grows to 250 mm tall, which has completed its lifecycle by mid-summer. Stems are simple or sparingly branched and have a few leaves which are arranged in opposite pairs. Leaves are thick, pale green, up to 15 mm long, trowel-

shaped and not stalked. Flowers are pale yellow up to 4 mm long, barely open and occur in a cluster at the tip of the stem. Seeds are in an egg-shaped capsule, to 5 mm long.



#### Similar species

The two introduced gentians: centaury and yellow wort look similar. Both grow in the same habitat but centaury is larger, has a basal rosette of almost parallel-veined leaves and has pink flowers, while yellow wort has blue-green leaves, is sometimes more robust and has larger, yellow flowers that open fully.



Coastal and lowland boggy, swampy ground; dune hollows.



Historically throughout the North Island and northern half of the South Island but now restricted to two locations in Wanganui Conservancy. The recent translocation to Pouto Peninsula in Northland was successful, resulting in a wild population. This species is probably extinct in previously recorded locations (Mangamuka and South Hokianga Head). Also in Tasmania.



#### Threats

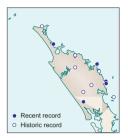
Habitat destruction and weed competition (particularly pasture grasses and clovers) are the main threats to this low growing species. Nitrification from fertilisers and cattle and compaction (cattle) and disturbance are also attributed. Browse from a plume moth caterpillar, has also been recorded.



Sebaea ovata. Photos: (top) C.C.Ogle; (middle) A.J.Townsend; (bottom) L.J. Forester.

### Senecio scaberulus

#### fireweed



#### Status

Nationally Endangered

#### Description

An upright, grey-green coloured rosette forming herb. Rosette and lower stem leaves are narrowly elliptic, deeply toothed and covered with soft, jointed hairs, which are longer on the lower surface of the leaves. The leaves have a distinctive velvety texture. Upper stem leaves are smaller, usually lance-shaped, and also deeply toothed or shallowly lobed. Flowers are yellow daisies that lack petals. Flowering occurs from October to February. Seeds are cigar-shaped achenes which are usually evenly covered with short hairs. This is the most reliable way to identify the species but requires the use of a high-powered hand lens or microscope.

#### Similar species

*Senecio hispidulus* is similar but usually larger, and its leaves are covered with short white hairs that have a rasp-like texture when brushed. It also has a more crowded inflorescence and slightly smaller achenes with hairs in distinct rows. If you suspect you have found *S. scaberulus* collect a small flowering or fruiting piece and have it checked by a botanist.

#### Habitat

Shaded sites amongst short grasses under coastal pohutukawa forest or short scrub, on rock outcrops, cliffs or banks near the sea, often occurring with *Senecio bispidulus*. Also found at inland sites, e.g., on bare lava and amongst forest on bluffs and in canopy gaps.

#### Distribution

Endemic to North, South and Chatham Islands. The three historic South Island records all come from the vicinity of ports, and are probably accidental introductions from the North Island, possibly Auckland region, where it was once very common on the lava fields abutting the historic port of that city. Now very local in Northland and south Auckland.

#### **Threats**

Habitat loss through coastal development (subdivisions), hybridisation with *S. bispidulus* and competition with introduced coastal weeds are the main threats.



Senecio scaberulus. Photo: G.M. Crowcroft.