

Rorippa divaricata

New Zealand water cress

BRASSICACEAE

Status

Nationally Endangered

Description

A hairless perennial with a rosette, taproot and upright stems to 1.5 m tall. Rosette leaves are 100-160 × 30-70 mm, with large, rounded lobes at their tips; edges 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 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

None

Habitat

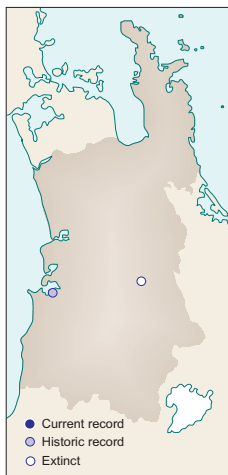
A coloniser of freshly exposed or disturbed sites such as burnt forest, lake margins and petrel burrows.

Distribution

Endemic to the North Island and northern South Island. In the Waikato Conservancy, it is known from one collection made near Mt Maungatautari in the late 1800s and one from the Kawhia Harbour in the 1980s. It has not been seen recently at either site and may well be extinct in the region.

Threats

Susceptible to habitat loss from both natural regeneration and weed invasion. Diseases and predation by browsing animals may have accelerated its decline on the mainland.



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

Senecio scaberulus

fireweed

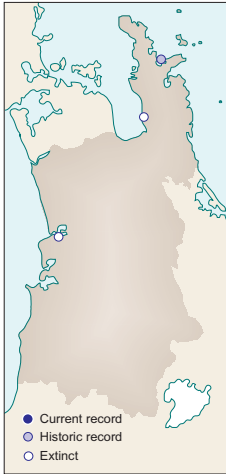
ASTERACEAE

Status

Nationally Endangered

Description

An upright, grey-green coloured herb up to 1 m tall. Basal and lower stem leaves, (0.3–) 1.2 (–1.8) m × (5–) 20–50 mm, 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 tubular, lacking 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. *Senecio lautus* is bright or dark green, fleshy to somewhat succulent herb, its flowers have yellow ray-florets (petals) and the seeds have hairs in distinct rows. *Senecio repangae* subsp. *repangae* has very similar leaves but is a smaller plant, with deep sulphur yellow, notched ray-florets.

Senecio scaberulus. Illustration by T. Galloway.





Senecio scaberulus.

Photo: G.M. Crowcroft.

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, on bare lava, with forest on bluffs and in canopy gaps.

Distribution

Endemic to North 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. In the Waikato, it has been reported from Whangapoua in 1992 and historically from Raglan in 1896 and the Te Puru River in 1900.

Threats

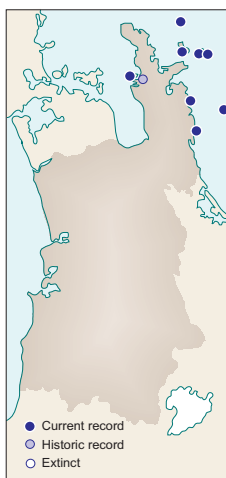
Hybridization with *S. bispidulus* and competition with introduced coastal weeds are the main threats.

Sicyos australis

mawhai



Waikato Conservancy distribution of *Sicyos australis*.



Waikato Conservancy distribution of *Sicyos aff. australis*.

CUCURBITACEAE

Sicyos australis is extremely variable, and at present three forms are known for the country. None of these may actually be referable to *S. australis*, which was described from Norfolk Island during the early 1800s and is now extinct there. In the Waikato two of the three forms are present, one has been provisionally referred to as *S. australis* and the other as *S. aff. australis*.

Status

Sicyos australis is rated as Nationally Critical and *S. aff. australis* as in Serious Decline.

Description

A sprawling, pumpkin-like vine with small (8–12 mm diameter), dry, prickly fruit. Stems are up to 4 m or more long, with long, branched, spirally coiled tendrils. Leaves have toothed edges and 5 prominently pointed lobes. The hairs on the stems and leaf stalks are bristle-like and stick out from the stem or stalk. Plants bear either male or female flowers. Flowers are small, white or greenish, up to 10 mm diameter and on short stalks; males occur in spikes of more than 10 flowers and females occur in clusters of up to 14. Fruits are 8–12 mm long, oval and compressed in shape, covered with sharply barbed, spiny bristles; it is best to avoid contact with these. Flowering occurs in January–February.

Sicyos aff. australis is distinguished by having leaves with 5–7 rounded lobes, finer marginal teeth; hairs on the stems and leaf stalks are curved downwards (sometimes abruptly), and shaggy in appearance; stems are slightly thicker; flowers are slightly larger and can number up to 20. Fruiting occurs in January. (C. Delmiglio, pers. comm.).

Similar species

None

Habitat

Coastal scrub.

Distribution

Sicyos australis occurs in five sites on mainland New Zealand from Northland to the Bay of Plenty. In the Waikato it is known from Whenuakite on the Coromandel Peninsula. *Sicyos* aff. *australis* once ranged on mainland and offshore island sites from Northland to Tootaranui. It now occurs on offshore islands in the Hauraki Gulf, near Coromandel Peninsula and in the Bay of Plenty. Three Kings plants cannot be placed at this stage with either taxon, and they, along with the form found on the Kermadec Islands, may represent another species altogether. Close relatives occur in eastern Australia while *S. australis* was formerly present on Lord Howe and Norfolk Islands.

Threats

Introduced pests and loss of habitat through coastal development are the most likely causes of decline. Plants are susceptible to cucumber mosaic virus and other diseases that affect members of the cucumber family. Because male and female flowers occur on separate plants, small population sizes can create reproductive problems (e.g. failure to attract pollinators, inbreeding depression, absence of male or female plants in a population).



Right: *Sicyos australis*.

Photo: P. Cashmore;

Below: *Sicyos* aff. *australis*.

Photos: C. Delmiglio.



Sophora fulvida

FABACEAE

Status

Gradual Decline

Description

A small kowhai tree to 10 m tall. It has many hairy, small, crowded, yellow-green or grey leaflets. Young branches are also hairy, and juvenile plants do not divaricate. Leaves on adults are up to 140 mm long and bear 60–90, roughly elliptical leaflets, each $1.8\text{--}7.5 \times 1.2\text{--}4.5$ mm. The larger juvenile leaves are almost devoid of hairs, also elliptical in shape and range in size from $2\text{--}3 \times 4\text{--}6$ mm. Flowers are yellow and flowering occurs from October to November; fruiting in April–May.

Similar species

Sophora microphylla, *S. chatbamica*, *S. godleyi* and *S. tetraptera* all occur in parts of the Waikato Conservancy and therefore could be confused with *S. fulvida*. These all tend to have fewer leaflets on each leaf, and leaflets which are often larger, broader, crowded and sometimes overlapping or widely spaced. Detailed descriptions are provided by Heenan et al. (2001).

Habitat

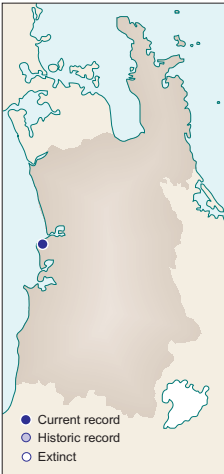
Open or disturbed sites, on base-rich volcanic rock, rubble and outcrops, amongst mixed podocarp-hardwood forest.

Distribution

Endemic to New Zealand, occurring in Northland, Auckland and the Waikato. The southern limit occurs at Mt Karioi on the south side of Raglan Harbour.

Threats

Competition from weeds, especially on rocky outcrops; animal browse and loss of habitat.



Sophora fulvida. Photos: P.J. de Lange.