

# Rhabdothamnus solandri

## COMMON NAME

New Zealand gloxinia, taurepo, kaikaiatua, mata, matata, waiuatua

## SYNONYMS

Rhabdothamnus scabrosus Steud., Columnea scabros Solander ex DC.

## FAMILY

Gesneriaceae

## AUTHORITY

Rhabdothamnus solandri A.Cunn.

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

Yes

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

## NVS CODE

RHASOL

## CHROMOSOME NUMBER

2n = 74

## CURRENT CONSERVATION STATUS

2017 | Not Threatened

## PREVIOUS CONSERVATION STATUSES

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

## BRIEF DESCRIPTION

Bushy shrub to 2m tall with many thin twigs bearing rounded thin leaves that are sparsely stiff-haired and with a toothed edge and with tubular 20–40mm long red-streaked yellow papery flowers. Leaves 10–65mm long by 15–60mm, largest plants occurring mainly on offshore islands and a very small-leaved form also known.

## DISTRIBUTION

Endemic monotypic genus. North Island and adjacent offshore islands. From Te Pahi (North Cape) south to Manawatu Gorge, thence disjunct to just north of Pauatahanui Inlet, Porirua Harbour and at Smiths Creek near Makara, Wellington.

## HABITAT

Coastal to lowland and lower montane. Mostly a rupestral species in forest though it will extend into shrubland. *Rhabdothamnus solandri* is especially common in the lowland karst of the western Waikato where it is a prominent shrub along the many limestone gorges, outcrops, and cave entrances of that area. Although more common in coastal and lowland situations *R. solandri* can occur well inland in situations where frost is limited, such as along the banks of the Waikato River (near Mangakino).



Rhabdothamnus solandri. Photographer: Wayne Bennett, Licence: CC BY-NC.



Waipoua. Photographer: Jeremy R. Rolfe, Date taken: 14/12/1982, Licence: CC BY.

## DETAILED DESCRIPTION

Shrub up to c. 2 m. tall. Branches numerous, compact, rather brittle, grey-brown to grey, scabrous sparsely to densely hairy. Branchlets slender, oppositely arranged with branches, densely leafy or not, scabrous, densely covered in indumentum of 0.2–0.4 mm long, dark red-brown to pallid, stiff, strigose, conical, multi-celled hairs. Leaves, dark green, yellow-green to grey-green, ± coriaceous to cartilaginous, often rather brittle, midrib and veins distinct, lamina surfaces densely covered in semi-appressed to patent, dark red-brown to pallid, strigose, 0.5–0.8(–1.0 or more) mm long hairs; petioles 3–10(–15) mm long, slender, densely covered in scabrid hairs, brittle. Lamina (0.5–)10–20–50(–65) × (0.6–)15–30–50(–60) mm, broad-ovate, suborbicular to orbicular, margins coarsely serrate-dentate. Flowers solitary, nodding, 20–25(–40) mm long, ciliolate, usually orange, but sometimes yellow, purple or pink, longitudinally striped by 12–14(–20) red or dark orange veins; pedicels 10–40 mm long, slender, purple, densely pilose-hairy, hairs pallid. Calyx 10–15 mm long, pilose, calyx lobes 6–9 mm long, ovate, deltoid to triangular-acuminate. Corolla tube 10–20 mm long, subcampanulate to funnelform; corolla lobes 5–10(–20) mm long, broadly ovate, to oblong, apex obtuse to rounded erecto-patent to spreading. Stamens 4, 12–14(–20) mm long, adnate to corolla tube, filaments slender, incurved above, dark red, glabrous; anthers cruciately paired, 0.8–1.4 mm long, pollen cream. Staminode 10–12(–18 m) mm long, adnate to corolla tube. Disk small, annular. Ovary ovoid, bilocular. Style curved at apex, 11–13(–19) mm long, filiform, red; stigma small, obconic, apex bilobed. Capsule 6.5–7.2(–11.4) mm long, invested by persistent calyx, ovoid, tapered to apex; placentae thick, bilobed; seeds numerous, 0.4–0.6 mm long, ellipsoid or obovoid, test reticulate, glabrous, dark red-brown.

## SIMILAR TAXA

*Rhabdothamnus solandri* is such a distinctive plant that it could not be confused with any other vascular plant wild in New Zealand. The genus is monotypic and well marked—its closest relatives occur on Lord Howe island (e.g., pumpkin tree (*Negria rhabdothamnoides*)) and in Chile. In New Zealand, *Rhabdothamnus solandri* is quite variable with larger-leaved, often yellow-flowered forms found on the northern North Island offshore island, e.g., Taranga (Hen Island), Hauturu (Little Barrier Island), Tuhua (Mayor Island), whilst a very small-leaved extremely scabrous form found at Maunganui Bluff is worthy of further study. At North Cape, on the 120 ha serpentinized zone, a sprawling, almost lianoid, form of *R. solandri* with extremely small leaves is also known. This form grows with the more usual morph of *R. solandri* along the Ngawhenua Stream.

## FLOWERING

Throughout the year but peaking between October and February

## FLOWER COLOURS

Orange, Yellow

## FRUITING

Throughout the year

## PROPAGATION TECHNIQUE

Can be grown from semi hardwood cuttings with variable success. Fresh seed generally germinates easily. An attractive plant for a semi-shaded site in free-draining, fertile (high Ca, Mg) soil. The flower colour varies from dark crimson through orange to yellow. The yellow form is the one more commonly available at garden centres

## THREATS

Not Threatened. However seed set in this bird-pollinated species is often minimal on the mainland (see Anderson et al. 2011).

## ETYMOLOGY

**rhabdothamnus**: Wand shrub

**solandri**: Named after Daniel Carlsson Solander (19 February 1733 - 13 May 1782) who was a Swedish naturalist and an apostle of Carl Linnaeus.

## ATTRIBUTION

Fact sheet prepared by P.J. de Lange (12 October 2008). Description adapted from Allan (1961) and Webb & Simpson (2001), and based in part on fresh plants and herbarium material.

## REFERENCES AND FURTHER READING

Allan, H.H. 1961: Flora of New Zealand. Vol. I, Government Printer, Wellington.

Anderson, S.H.; Kelly, D.; Ladley, J.J.; Molloy, S.; Terry, J. 2011: Cascading effects of bird functional extinction reduce pollination and plant density. Science: DOI: [10.1126/science.1199092](https://doi.org/10.1126/science.1199092)

Webb, C.J. & Simpson, M.J.A. 2001. Seeds of NZ gymnosperms and dicotyledons. Manuka Press, Christchurch.

## NZPCN FACT SHEET CITATION

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<https://www.nzpcn.org.nz/flora/species/rhabdothamnus-solandri/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/rhabdothamnus-solandri/>