Gastrodia sesamoides

COMMON NAMES
gastrodia, pot-bellied orchid, cinnamon sticks

BIOSTATUS
Native

CURRENT CONSERVATION STATUS
2023 | Not Threatened | Qualifiers: SO
Jump to previous conservation statuses

CATEGORY
Vascular

STRUCTURAL CLASS
Orchids

FLOWER COLOURS
Brown, Red/Pink

DETAILED DESCRIPTION
Terrestrial, saprophytic, deciduous, fleshy, perennial herb lacking chlorophyll. Plant at flowering up to 1 m tall. **Rhizome** up to 80 × 30 mm, tuberous, elongated, swollen, mycorrhizal, pale pinkish-brown to brown to brownish-black, often covered in chartaceous scales and scale-leaves, especially toward the active apex. **Stem** 2–7 mm diameter, dark brown to brown with lighter brown coloured, small spots, erect, stout or slender, rather brittle when fresh. **Scale leaves** widely spaced, chartaceous. **Flowers** mostly fewer than 20, mostly unscented, sometimes faintly scented; pendulous such that dorsal sepal frequently touches the stem axis. **Perianth** 10–16 × 4–8 mm, basally light brownish or mustard, pinkish or pinkish cream toward apex, unspotted, smooth, rarely with a few small tubercules; lobes slightly thickened toward margins. **Lateral** sepals fused almost to level of labellum-tip. **Labellum** 10 × 4 mm, white, cream, or yellowish, membranous above, thickened below, somewhat irritable, completely enclosed within floral tube (apex just visible), ovate-oblong, trilobed, base shortly fused to gibbous perianth-tube, lateral-lobes with upturned, irregular, crenate, margins; mid-lobe yellowish with flat but irregular margins, bearing several long median, verrucose, cristate, pinkish-white or cream calli. **Column** almost as tall as labellum, very narrowly winged throughout; anther terminal, erect and bending forwards, short and broad, operculate, filament smooth, pollen breaking into angular granules; stigma basal, set well apart from and far below anther, broad, hollow; rostellum flap-like, positioned under anther.

Te Paki. Photographer: Jeremy R. Rolfe, Date taken: 07/11/2007, Licence: CC BY.

Longitudinal section showing column almost as long as labellum. Hamilton, from a specimen collected by Peter de Lange. Photographer: Jeremy R. Rolfe, Date taken: 22/11/2013, Licence: CC BY.

SIMILAR TAXA
Easily distinguished by its ecology—as this species frequents coastal wetlands and favours disturbed habitats such that it is often found in in locations completely overrun by naturalised plants. *Gastrodia sesamoides* has paler, flowers than the other two New Zealand species, and they lack spots and have a mostly non-tuberculate, smooth surface. Of critical diagnostic importance is that the column is almost the same length at the labellum.

DISTRIBUTION
Indigenous. New Zealand: North Island, South Island (Marlborough and Nelson). Also Australia, South Africa (introduced and naturalised).

HABITAT
Coastal to montane (up to 1000 m as.l.). Favouring disturbed habitats, coastal wetlands and associated shrublands, gumland scrub, and open sites along forest margins or in secondary regrowth. Often found in plantation forestry, and also occasionally found in urban areas often in traffic islands or public plantings, where it seems to be associated with pine bark mulch.

GENUS
Gastrodia

FAMILY
Orchidaceae

AUTHORITY
Gastrodia sesamoides R.Br.

SYNONYMS
None

TAXONOMIC NOTES
New Zealand plants differ somewhat from Australian plants of G. sesamoides (from where it was first described) and they probably warrant formal separation at species rank.

ENDEMIC TAXON
No

ENDEMIC GENUS
No

ENDEMIC FAMILY
No

FLOWERING
August–March

FRUITING
October–May

PROPAGATION TECHNIQUE
A saprophytic species which should not be removed from the wild. Difficult to grow.

ETYMOLOGY
gastrodia: Belly tooth (flower centre)

MANAAKI WHENUA ONLINE INTERACTIVE KEY
Key to native orchids of New Zealand

NVS CODE
GASSES

CHROMOSOME NUMBER
2n = 38-40

PREVIOUS CONSERVATION STATUSES
2017 | Not Threatened | Qualifiers: SO
2012 | Not Threatened
2009 | Not Threatened
2004 | Not Threatened
Jump to current conservation status

REGIONAL CONSERVATION STATUSES

Auckland: 2025 | Regionally Data Deficient Help

The regional threat classification system leverages off the national assessments in the NZTCS, providing information relevant for the regional context. Auckland conservation status information is sourced from the "Conservation status of vascular plant species in Tāmaki Makaurau / Auckland" Simpkins E et al. (2025) report.

REFERENCES AND FURTHER READING

Moore LB, Edgar E. 1970. Flora of New Zealand, Volume II. Indigenous Tracheophyta: Monocotyledones except Gramineae. Government Printer, Wellington, NZ. 354 p.

Rolfe J. 2017. Guide to New Zealand Gastrodia (Orchidaceae) (pdf, 5Mb).

ATTRIBUTION

Description adapted from Moore and Edgar (1970)

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MORE INFORMATION

https://www.nzpcn.org.nz/flora/species/gastrodia-sesamoides/

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