

Pterostylis agathicola

COMMON NAMES

kauri greenhood

BIOSTATUS

Native

CATEGORY

Vascular

STRUCTURAL CLASS

Orchids

FLOWER COLOURS

Green, White

DETAILED DESCRIPTION

Terrestrial tuberous herb growing as solitary plants or in diffuse colonies. Plants dimorphic. **Sterile plants** 60–100 mm tall; 2–3-leaved; leaves narrowly linear-lanceolate, 30–60 × 3–6 mm, dark green, entire, acute to acuminate. **Flowering plants** 100–350 mm tall, stems green or pale green, rarely reddish. **Leaves** 3–4, cauline, widely spaced, spreading; lamina narrowly lanceolate, 40–100 × 5–8 mm, dark green or pale green, sessile, sheathing at base; midrib prominent; margins entire; apex acuminate. **Pedicels** 10 mm long, slender. **Ovary** 9–12 mm long, ribbed. **Flowers** 1–(2), 24–28 mm long, erect or slightly leaning forwards, translucent white and dark green with red brown suffusions at the apex of the galea and lateral sepals; galea gibbous at the base then erect before bending forwards, the apex flat, erect or decurved, the dorsal sepal much longer than the petals. **Dorsal sepal** ovate-lanceolate in outline when flattened, 33–37 × 12–16 mm, prominent expanded near the base then tapered to the long-acuminate apex. **Lateral sepals** erect, loosely embracing the galea leaving a prominent lateral gap to the petal margins; upper part of sinus flat or shallowly mounded when viewed from the side, with a deep narrow, central notch when viewed from the front; conjoined part 8–11 × 6–9 mm, narrowed to c. 2.5 mm wide at the base, tapered into the free points; free points 20–26 mm long, tapered, erect, the tips extending high above the galea. **Petals** obliquely linear-lanceolate, 17–22 × 3–4 mm, strongly falcate, acuminate, green with white stripes, red-brown towards the apex. **Labellum** erect, curved forwards in the distal $\frac{1}{3}$, the apex twisted strongly to the right and protruding prominently through the sinus in the set position; labellum hinge ligulate 3 × 2 mm; lamina narrowly ovate-lanceolate to elliptical lanceolate, 9.0–11.0 × 3.0–3.3 mm, dark green to brownish with a darker reddish central callus, apex subobtusate to slightly emarginate; callus 0.6 mm wide near apex, raised; basal appendage 2.5–3.0 mm long, decurved, apex penicillate. **Column** 12–14 mm long, bent away from the ovary at 45 degrees at the base then erect, green and white; column foot 4 mm long. **Column wings** 5–6 mm long; basal lobe 3 × 1 mm, at an angle of about 35 degrees. apex obtuse, inner margins incurved, sparsely and shortly ciliate; mid-section 2.5 mm long; green; apical lobe 1 mm long, linear, obtuse. **Stigma** scutiform 3.0–3.5 × 2.0 mm, medial on the column, raised. **Anther** 1.8 mm long, very shortly rostrate. **Pollinia** linear-falcate, 1.3–1.4 mm long, yellow, mealy. **Capsules** narrowly-ellipsoid, 20–24 × 5–7 mm.



Trounson Kauri Park. Photographer: Jeremy R. Rolfe, Date taken: 17/07/2006, Licence: CC BY.



Te Pahi. Photographer: Jeremy R. Rolfe, Date taken: 24/09/2014, Licence: CC BY.

SIMILAR TAXA

Easily recognised by the early flowering habit; mostly reddish stem; 3–4 widely spaced, spreading leaves; large (for size of plant) flowers (24–28 mm long); long and slender, spreading free points on the lateral sepals; and by the labellum apex constricted and twisted to the right. Ecologically it is particularly distinctive through its restriction to kauri forest where it often grows with *Pterostylis brumalis* L.B.Moore.

DISTRIBUTION

Endemic. New Zealand: North Island (Te Paki south to Te Kauri Park Scenic Reserve in the west and the northern Kaimai Range in the east).

HABITAT

Coastal to montane (up to 720 m a.s.l.). Virtually confined to kauri (*Agathis australis* (D.Don) Lindl.)-dominated forest where it usually found growing in leaf litter close to the trunks of large kauri trees.

CURRENT CONSERVATION STATUS

2023 | Not Threatened

DETAILED TAXONOMY

FAMILY

Orchidaceae

AUTHORITY

Pterostylis agathicola D.L.Jones, Molloy et M.A.Clem.

SYNONYMS

Pterostylis graminea var. *rubricaulis* H.B.Matthews ex Cheeseman nom. inval.; *Pterostylis montana* var. *rubricaulis* (H.B.Matthews ex Cheeseman) Hatch nom. inval.

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

ECOLOGY

FLOWERING

July–October

FRUITING

August–December

PROPAGATION TECHNIQUE

Difficult—should not be removed from the wild. Extremely mycorrhizal.

OTHER INFORMATION

WHERE TO BUY

Not commercially available

ETYMOLOGY

pterostylis: Winged column

MANAAKI WHENUA ONLINE INTERACTIVE KEY

[Key to native orchids of New Zealand](#)

NVS CODE

PTEAGA

CHROMOSOME NUMBER

2n = 44

PREVIOUS CONSERVATION STATUSES

2017 | Not Threatened

2012 | Not Threatened

2009 | Not Threatened

2004 | Not Threatened

REFERENCING AND CITATIONS

REFERENCES AND FURTHER READING

Jones DL, Molloy BPJ, Clements MA. 1997. Six new species of *Pterostylis* R.Br. (Orchidaceae) from New Zealand. *The Orchadian* 12: 266–281.

ATTRIBUTION

Fact Sheet prepared for NZPCN by P.J. de Lange 14 April 2007: Description based on Jones et al. (1997).

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Pterostylis agathicola* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

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

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pterostylis-agathicola/>

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12 October 2024