



# *Peristylus gracilis* (Orchidaceae): An addition to the flora of Andaman & Nicobar Islands, India

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## Abstract

*Peristylus gracilis* Blume (Orchidaceae) is reported here for the first time from Andaman & Nicobar Islands. A brief description with illustration and photographs is provided for easy identification.

**Keywords:** Great Nicobar Island, new report, terrestrial orchid

## Introduction

The genus *Peristylus* Blume belongs to the subfamily Orchidoideae. It is represented by c. 70 species (Chen *et al.*, 2009) distributed in Eastern Asia, South Asia, South-East Asia to New Guinea, North-Eastern Australia and the South-West Pacific islands (Chen *et al.*, 2009). The general morphology of the genus is very similar to that of *Habenaria* Willd. and *Pecteilis* Raf. About 29 species and 2 varieties have been recorded from India (Misra, 2007) of which 4 species are reported from Andaman & Nicobar Islands (Pandey & Diwakar, 2008; Karthigeyan *et al.*, 2010). Amongst these, *P. balakrishnanii* Karthigeyan *et al* was recently reported from Rutland Island as new species by Karthig. *et al.* (2010). The remaining 3 species, viz. *P. manii* (Rchb.f.) Mukerjee and *P. monticola* (Ridl.) Seidenf. are confined to Andaman Islands, while *P. parishii* Rchb.f. occurs in both Andaman as well as Nicobar Islands.

During floristic explorations in Nicobar group of Islands, a few specimens belonging to the genera *Peristylus* were collected from Great Nicobar Island which on critical study were identified as *Peristylus gracilis* Blume. A thorough scrutiny of literature (Kumar & Manilal, 1994; Sinha, 1999; Misra, 2007; Pandey & Diwakar, 2008; Karthigeyan *et al.*, 2010) revealed that this species was hitherto not recorded from Andaman & Nicobar Islands. Hence, in the present treatment the species is reported as a new addition to the orchid flora of Andaman & Nicobar Islands. A brief description

along with illustration and photographs (Fig.1 & 2) is provided to facilitate easy recognition of this species.

***Peristylus gracilis*** Blume, Bijdr. Fl. Ned. Ind. 8: 404. 1825; J.J.Sm., Orch. Java 31. 1905; Deori & Malhotra, Ind. For. 103: 680. 1977; Seidnf., Dansk. Bot. Ark. 31 (3): 30, f. 11. 1977; Katakai, Orch. Meghalaya: 219.1986; Comber, Orch. Java 69. 1990; Seidenf. & J.J.Wood, Orch. Penins. Malaysia Singapore 103. 1992; Comber, Orch. Sumatra 110. 2001; T.C. Hsu *et al.*, Taiwan 54: 381. 2009.

**Fig. 1, 2**

Type: Java, Blume *s.n.* (holotype L)

*Habenaria bambusetorum* Kraenzl., Annuaire Conserv. Jard. Bot. Geneve 1: 107. 1897; Holttum, Fl. Malaya 1: 85. 1953.

*Habenaria inconspicua* Ridl., J. Fed. Malay States Mus. 4: 75. 1909, *nom. illeg., non Cogn.* 1907.

*Habenaria zephyrica* Ames, Orchidaceae 5: 16. 1915.

Terrestrial herbs, upto 30 cm high; tuber ellipsoid, 1.5 × 0.5 cm. Stem leafy at upper part, c. 13 cm long, bearing 3 tubular sheathing leaves below. Leaves 6–7, spreading near middle of stem, elliptic-oblongate, acute to acuminate, c. 7.5 × 2.5 cm with undulate margins, sheathing at base. Inflorescence many flowered, peduncle c. 7 cm long, glabrous with 2–3 sheathing bracts; rachis



**Fig. 1.** *Peristylus gracilis* Blume: **a.** Habit; **b.** Flowers; **c.** Inflorescence; **d.** Leaves; **e.** Fruit; **f.** Tuber.

*c.* 11 cm long bearing 18–20 flowers; floral bracts light green, lanceolate, 4 mm long, acuminate at apex. Flowers *c.* 1.2 cm long, light green, scented; pedicel with ovary *c.* 0.9 cm long, longer than floral bracts; dorsal sepal and petals form a hood over the column. Dorsal sepal ovate or ovate-lanceolate, concave, *c.* 3.5 × 1.5 mm, apiculate at apex; lateral sepals spreading, concave, lanceolate, *c.* 4 × 1.5 mm, apiculate at apex; petals obliquely triangular, shallowly concave, *c.* 3 × 1.5 mm, thinly

textured, apex acute. Lip deeply 3-lobed, lateral lobes spreading, thread-like, linear lanceolate, often curled, 4–5 mm long; mid lobe triangular-lanceolate, *c.* 2 × 1 mm, acute at apex; spur subcylindric, *c.* 7 × 1 mm, fusiform-clavate below with swollen upper part. Column *c.* 1 mm long with large auricles on both sides; stigma small, placed near to the auricles; rostellum minute, triangular, emarginate at apex. Capsule *c.* 1.5 × 0.4 cm, elliptic fusiform with an apical beak.



**Fig. 2.** *Peristylus gracilis* Blume: **a.** Habit; **b.** Flower (side & front views); **c.** Floral bract; **d.** Sepals (dorsal & lateral); **e.** Petal; **f.** Column (front & side views); **g.** Fruit (*Joju P. Alappatt* 390; PBL).

*Flowering & Fruiting:* June – January.

*Habitat:* A rare ground orchid found growing amidst dense and moist ground vegetation along with *Selaginella* sp. at an elevation of about 75 m.

*Distribution:* India [Andaman & Nicobar Islands (present report), Meghalaya] Taiwan, Vietnam, Thailand, Malaysia, Indonesia and Philippines.

*Specimens examined:* INDIA, **Andaman & Nicobar Islands**, Great Nicobar Island, 16 km on East-West Road, 12.12.2011, *Joju P. Alappatt* 390 (PBL); **Meghalaya**, Jaintia Hills District, forest East of Jarain I.B. along the hill slope, 28.06.1973, *N.C. Deroi* 51742 (ASSAM).

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