

***Thrixspermum changlangensis* sp. nov. [Orchidaceae: Epidendroideae: Vandeeae: Aeridinae] from Arunachal Pradesh in Northeast India**

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Abstract

A new species of orchid, viz. *Thrixspermum changlangensis* from tropical evergreen forest in Changlang District of Arunachal Pradesh, India, is described. It is allied to *Thrixspermum calceolus* (Lindl.) Rchb.f. but quite distinct from this species in having broadly triangular lateral lobes of lip with short laciniate tips and shorter, broadly triangular, obtuse midlobe of lip with glabrous callii on the disc.

Key words: *Thrixspermum changlangensis*, New species, Arunachal Pradesh, India

INTRODUCTION

The genus *Thrixspermum* Loureiro (Orchidaceae) comprises of around 161 species (Chase *et al.* 2015) distributed widely from the Himalayas to Philippines and tropical Islands of S.W. Pacific (Govaert *et al.* 2016). So far, the genus is represented by 16 species in India (Misra 2007, Maina *et al.* 1998, Mao *et al.* 2011, Gogoi 2011, Gogoi & Yonzon 2015, Vikas Kumar *et al.* 2017, Gogoi 2018) of which 9 species are recorded from Northeast India including 3 species from Arunachal Pradesh (Hegde 2017) viz. *Thrixspermum centipede* Lour., *T. musciflorum* Rao & Joseph and *T. saruwatarii* (Hayata) Schltr.

During a field trip to Myanmar through Changlang district of Arunachal Pradesh on 10 June, 2014, the author collected an unidentified epiphytic orchid in its vegetative condition from Nampong area of Arunachal Pradesh. The orchid was brought under cultivation at the Regional Orchids Germplasm Conservation and Propagation Centre (Assam Circle), Assam where it flowered during May, 2018 after four years. A critical study based on the available literature (Seidenfaden 1975; Pradhan 1979; Das *et al.* 1980; Chowdhery 1998; King & Pantling 1898; Gravendeel 2000; Clayton 2002; Pearce & Cribb 2002; Luckson 2007; Chen *et al.* 2009; Rao 2010; Gogoi *et al.* 2015; Hooker 1890; Ridley 1907; Seidenfaden 1988; Seidenfaden & Wood, 1992) and the comparison with the herbarium specimens of *Thrixspermum* collections deposited in the local Herbaria proved that the present collection is an undescribed species. Hence, it is described here as a new species along with a plate of colour illustrations of plant habit and floral dissected parts.

***Thrixspermum changlangensis* Gogoi sp. nov.**

Typus: India, Arunachal Pradesh, Changlang district, Nampong, 500m, 00802, 10 May 2018, Khyanjeet Gogoi [Holo 00802 A (ASSAM); Iso 00802 B, (DU); Iso 00802 C, (TOSEHIM) (The Orchid Society of Eastern Himalaya)]. [PLATE I]

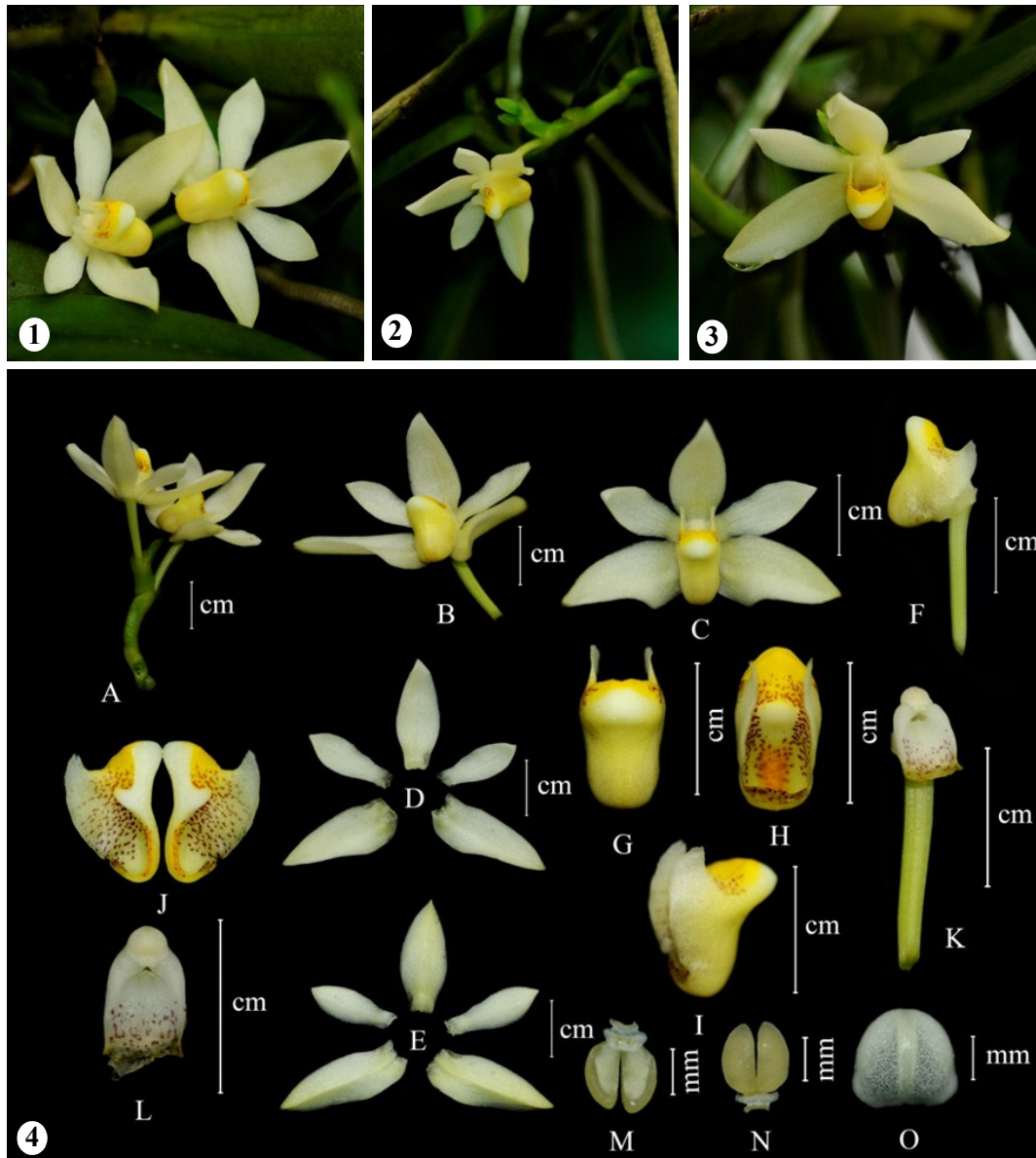


PLATE – I. *Thrixspermum changlangensis* Gogoi sp. nov.: **Figures 1 - 3.** Different views of flowers; **Figure 4.** **A.** Inflorescence; **B & C.** Flower; **D & E.** Sepals and Petals - ventral and dorsal views; **F.** Lip with ovary and column; **G, H & I.** Lip; **J.** longitudinal section of lip; **K.** Pedicel, ovary and column; **L.** Column; **M & N.** Ventral and dorsal views of pollinarium; **O.** Anther cap – dorsal view

Plant epiphyte, monopodial; stems stout, 10–30 cm long or less, slightly flattened, with many leaves; internodes 2–2.5 cm. Leaves fleshy, lanceolate, coriaceous, 5–13 × 1.5–2 cm, oblong, narrowed to twisted base and to the unequally bilobed rounded apex; sheaths 1–1.2 cm. Inflorescence 2–2.5 cm long, shorter than leaves, leaf opposite, one or two flowered. Bracts ovate cucullate, 0.5–0.6 cm long. Flowers last few hours, 4–4.5 cm across, white, fleshy, fragrant; lip orange yellow with a white tipped side lobes. Sepals 1.8–2.0 × 0.8–1.0 cm broad, lanceolate, acute. Petals 1.2–1.5 × 0.6–0.8 cm, narrower, oblanceolate. Lip 1.2–1.3 cm,

shoe-shaped, base saccate; side-lobes tringular, erect, 0.4 cm; mid-lobe broadly triangular, tip obtuse, fleshy; callus oblong truncate, retuse at top, all white except orange round callus, and small orange and crimson dots at base of lip. Column 0.6–0.8 cm with a foot. Pollinia 4, 0.2 cm long. Capsules cylindric, 10–12 cm.

Flowering and Fruiting: May– June

Habitat: Epiphytic on trees or branches

General distribution: INDIA (Nampong, Changlang District of Arunachal Pradesh).

Status: Rare; the species was found only in one locality

Etymology: The specific epithet refers to the District ‘Changlang’, Arunachal Pradesh in Northeast India where from the plant was collected.

Notes : The present new species is more allied to *Thrixspermum calceolus* (Lindl.) Rchb.f. but quite distinct from this species in having broadly triangular lateral lobes of lip with short lacinatetips ;and shorter, broadly triangular, obtuse midlobe of lip with glabrous callii on the disc. The Differences between *T.changlangensis* and *T.calceolus*Lour. are shown in the following Table 1.

Table 1. Differences between *Thrixspermum calceolus* and *T. changlangensis*

Characters	<i>Thrixspermum calceolus</i>	<i>Thrixspermum changlangensis</i>
Plant	epiphytic, terrestrial or lithophytic, upto 360 cm long.	epiphytic, 10-30 cm long.
Leaves	6–12 × 2–3 cm.	5–13 × 1.5–2 cm.
Sepals	2.5–4 cm long	1.8–2.0 × 0.8–1.0 cm broad.
Petals	a little smaller than sepals, 2.5–4 cm.	much smaller than sepals, 1.2–1.5 × 0.6–0.8 cm.
Lip	pubescent; lateral lobes narrower, acuminate, curved; midlobe of lip more than 2 times longer than the lateral lobes, oblong, terete, pointed.	glabrous; lateral lobes broadly triangular, shortly laciniate at apex; midlobe of lip subequal in length with lateral lobes, not pointed, broadly triangular, obtuse at tip.
Callii on disc of lip	pubescent.	glabrous.

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