

Bulbophyllum raskotii (Orchidaceae): An Addition to the Orchid Flora of India

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बुल्बोफायलम रसकोटाई (आर्किडेसी) : भारतीय आर्किड वनस्पति जात में नवीन संयोजन जाम्बे टेसरिंग एवं कोथारेड्डी प्रसाद

सारांश

भारत के अरुणाचल प्रदेश राज्य के तवांग जनपद से भारतीय आर्किड वनस्पति जात के लिये *बुल्बोफायलम रसकोटाई* जे.जे. वर्म, शूट. एवं डी. वोगल को अभिलेखित किया गया है। इस जाति की आकारिकी हेतु विच्छेदित पुष्पीय संघटकों की एक फोटोप्लेट को षोडश पत्र में उल्लेखित एवं वर्णित किया है। इससे पूर्व इसे भूटान एवं नेपाल से अभिलेखित किया गया था।

ABSTRACT

Bulbophyllum raskotii J.J. Verm., Schuit. & de Vogel is reported as an addition to the orchid flora of India from Tawang district of Arunachal Pradesh. A detailed morphological description along with photographs of plant and dissected floral parts are provided. Earlier it was known from Nepal and Bhutan.

Keywords: *Bulbophyllum raskotii*, New report, Arunachal Pradesh

INTRODUCTION

The genus *Bulbophyllum* Thouars is one of the largest genera of the family Orchidaceae, with about 2000 species distributed in the Tropical & Subtropical regions (Govaerts & al. 2019). In India, the genus is represented by 137 taxa (Singh & al. 2019) and about 94 species in North East India (Rao 2007). The first author, while working on Orchid diversity of Tawang district (Arunachal Pradesh) has explored the area consecutively for the past three years (2016-2019) and collected few interesting *Bulbophyllum* specimens from the *Timi-Phu* sacred grove. After critical study of specimens and perusal of relevant literature, it was concluded that the specimens belonging to the section *Sunipia* and species *Bulbophyllum raskotii* J.J. Verm., Schuit. & de Vogel, which is distributed in Nepal & Bhutan (Raskoti & Ale 2011, Rokaya & al. 2013,

Vermeulen & al. 2014, Dalstrom & al. 2017, Pant & al. 2018). *Bulbophyllum raskotii* is a rare orchid discovered from Nepal Himalaya under the genus *Sunipia* as *S. nepalensis* (Raskoti & Ale 2011). Later it was transferred to the genus *Bulbophyllum* (Vermeulen & al. 2014) and named as *Bulbophyllum raskotii* (the specific epithet was preoccupied by *Bulbophyllum nepalense* Raskoti & Ale, 2013). This species was hitherto unrecorded from India (Misra 2007, Singh & al. 2019) and hence, it is reported here as an addition to the orchid flora of India. A brief description along with photos/plate is provided for easy identification in the field (Figure 1 & Plate 1).

TAXONOMIC TREATMENT

Bulbophyllum raskotii J.J. Verm., Schuit. & de Vogel in Phytotaxa 166: 105. 2014. *Sunipia nepalensis* Raskoti & Ale in Phytotaxa 31: 55. 2011.



Fig. 1: *Bulbophyllum raskotii*. a. Natural habitat; b. Flower.

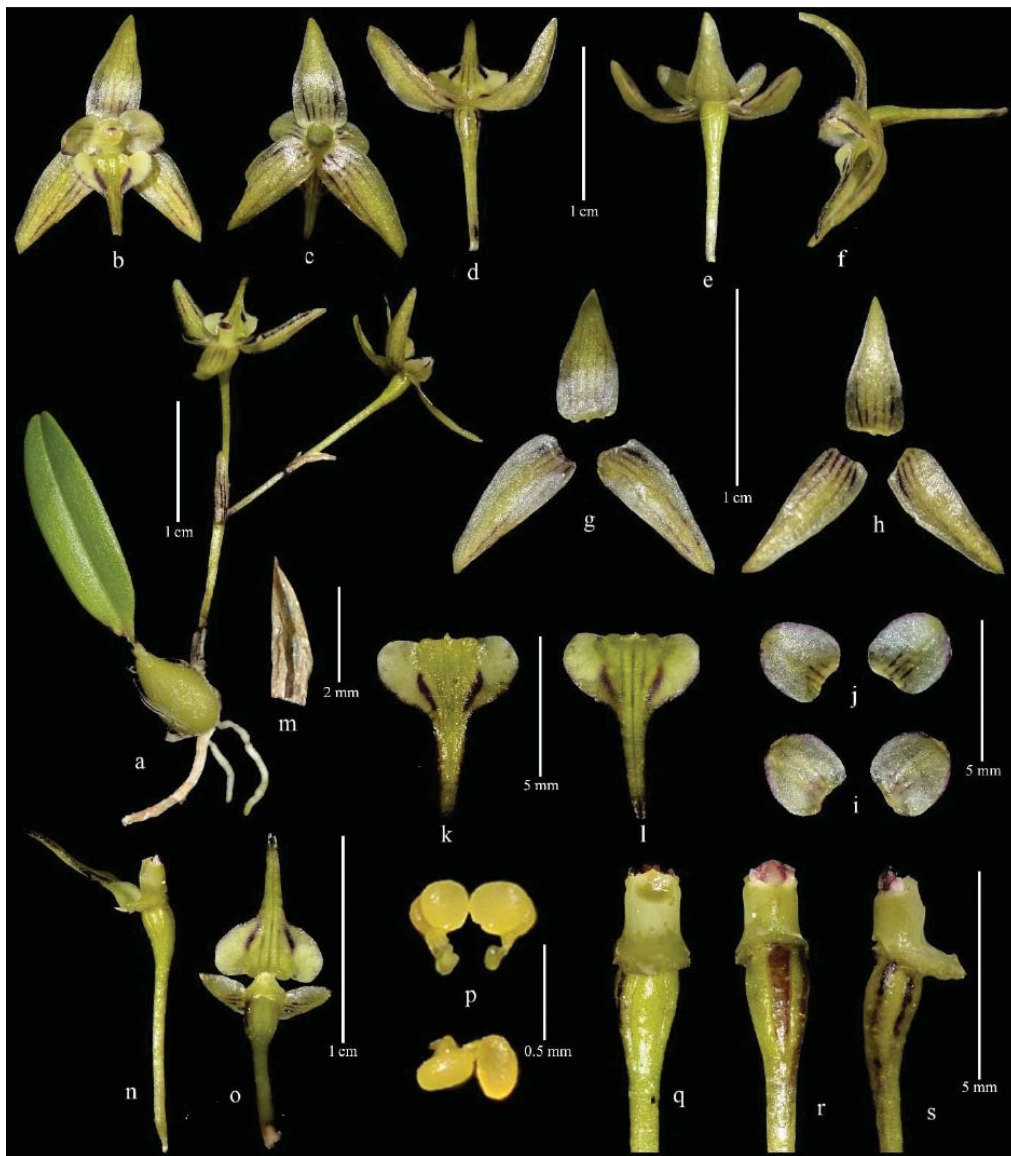


Plate 1: *Bulbophyllum raskotii*. a. Habit; b-f. Flower; b. Front; c. Back; d. Bottom; e. Top; f. Side; g-h. Sepals; g. Adaxial; h. Abaxial. i-j. Petals; i. Adaxial; j. Abaxial. k-l. Lip; k. Adaxial; l. Abaxial; m. Floral bract. n-o. Ovary and pedicel with column and petals; n. Side; o. Bottom; p. Pollinarium. q-s. Column with ovary; q. Front; r. Back; s. Side.

Types: Nepal, Makawanpur district, Daman, Simbhanjyang, 2400 m, May 2008, B.B. Raskoti 270 (holo: KATH; iso: TUCH).

An epiphytic herb. Rhizomes 1–1.5 mm thick, creeping, stout, enclosed by tubular sheaths. Roots many, rigid, flexuose. Pseudobulbs 1–1.5 × 0.8–1.3 cm, ovoid-conical, pale green, enclosed by papery sheath. Leaves 3–5 × 0.7–1.2 cm, leathery, lanceolate or lanceolate-oblong, subacute or emarginate at apex; shortly petioled. Inflorescence arising from the base of the pseudobulb, 3–5 cm long, erect, 1–3-flowered; peduncle 1.5–2 cm long, slender, terete. Flowers widely opening, c. 1.5 cm across; pedicel with ovary 2–2.5 cm long, ridged, green tinged with purple stripes or not; floral bracts 3–5 × 1.5–2 mm, lanceolate, acute, whitish-brown with 3–5-veined, veins dark brown. Sepals ovate-lanceolate, acute, pale greenish-yellow, 5-veined, veins purple; dorsal sepal erect and recurved towards apex, 6.2–6.5 × 1.9–2 mm; lateral sepals obliquely spreading, 7.6–8 × 2.9–3 mm. Petals 3 × 2.9 mm, broadly ovate, obtuse, greenish-yellow, 3-veined, veins purple. Lip 6–7 × 5–6 mm, circular with caudate apex, basal region with rugose callus, medially green, laterally pale whitish with purple veins, margin purplish or not; medially throughout with scattered vesicles above. Column 2–2.5 mm long, oblong; column foot 1.5 mm long. Pollinia 4, oblong, 0.3 mm long; stipes 0.2 mm long; viscidia short. Stigma sub-orbicular. Capsule not seen.

Flowering: June–July.

Habitat: Found growing in temperate mixed forest on moss covered large trees in partial shade at elevation of 2750 m.

Distribution: India (Arunachal Pradesh, present report), Nepal (Vermeulen & al. 2014 & Pant & al. 2018), Bhutan (Dalstrom & al. 2017).

Specimens examined: India. Arunachal Pradesh, Tawang district, Tawang, Timi Phu, 27° 34' 34" N; 91° 51' 40" E, 2750 m, 20.06.2017, Jambey Tsering 50013 (OHT-OHT3613).

Notes: The present report from India exhibit minor variations of type collections, which are pseudobulb smaller in diameter (0.8–1.3), erect inflorescence, petals broadly ovate, 3-veined and pollinia small, however, we

considered these as range of variation due to the different geographical locations.

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