



Eulophia promensis (Orchidaceae) - An addition to the flora of Manipur, India

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Abstract

The presence of *Eulophia promensis* Lindley is reported as a new distributional record to the state of Manipur from Moreh in Tengenoupal district. A detailed description of the species along with a plate of colour illustrations is provided.

Résumé

La présence d'*Eulophia promensis* Lindley est ici signalée pour la première fois dans l'état de Manipur. L'espèce a été enregistrée à Moreh dans le district de Tengenoupal. Une description détaillée ainsi qu'une planche d'illustrations en couleur sont fournies.

Key words: orchid, taxonomy, Tengenoupal

Mots clés : orchidée, taxinomie, Tengenoupal

Introduction

The terrestrial orchid genus *Eulophia* R. Brown (1821: 578) comprises about 200 species distributed in tropical and subtropical regions; it is most diverse in Africa, but also widespread from North and South America, Madagascar and the Mascarene Islands to Central and tropical Asia, the SW Pacific islands, and N and NW Australia (Chen *et al.*, 2009). In India, it is represented by 26 species (Misra, 2019) of which 8 species are reported so far from Manipur (Chauhan, 2001; Kumar & Kumar, 2005; Nanda *et al.*, 2014; Rao & Kumar, 2018; Mao & Deori, 2018; Singh *et al.*, 2019). The genus is characterised by a terrestrial, autotrophic or rarely mycotrophic habit, hypogeal fleshy rhizomes or tubers or rarely epigeal pseudobulbs, the presence or absence of leaves during flowering, a laxly to densely many flowered raceme or rarely panicle, a 3-lobed lip with various ornamentation on disc and usually a small tubular or conical spur at the base, a column with or without a foot and an anther with 2 cells and 2 sub-globose pollinia. During the last week of August 2020, a few plants of an orchid species belonging to the genus *Eulophia* in flowering stage were collected from Moreh surroundings in the Tengnoupal district of Manipur. Upon a critical study based on the available literature (Lindley, 1833; J.D. Hooker, 1889 & 1890; King & Pantling, 1898; Pradhan, 1979; Thomas, 1998; Deb *et al.*, 2009); the taxon has been identified as *Eulophia promensis* Lindley (1833: 181), which was so far reported in India only from West Bengal (Darjeeling), Sikkim and Nagaland. Hence, the present report of its occurrence in Manipur forms a new distributional record to the state.

Taxonomic treatment

Eulophia promensis Lindley, *The Genera and Species of Orchidaceous Plants*: 181. 1833. *Tainia promensis* (Lindley) J.D. Hooker, *Icones Plantarum* 19: t.1883. 1889. *Eulophia geniculata* King & Pantling in *Journal of the Asiatic Society of Bengal* 74(2): 337. 1895. *Ascotainia promensis* (Lindley) Schlechter in *Repertorium specierum novarum regni vegetabilis* 4: 246. 1919. *Eulophia massiei* Guillaumin in *Bulletin de la Société botanique de France* 77: 338. 1930. *Ania promensis* (Lindley) Senghas in F.R.R. Schlechter, *Die Orchideen ihre Beschreibung, Kultur und Züchtung*, ed. 3, 1(14): 863. 1984.

Pseudobulb tuberous, 2-3.3 cm diam., globose, 3-4 noded, white. Leaves 1-3, 70-110 × 2-4 cm, present during flowering, narrowly elliptic-lanceolate, plicate, acute. Inflorescence a 7-8-flowered raceme; peduncle greenish

yellow, clasped with 2-3 sheaths towards the base, terete; rachis laxly flowered; floral bract longer than ovary, elliptic-lanceolate, acute to acuminate, greenish yellow. Flowers partly opening, 2-2.7 cm across, yellow; pedicellate ovary 2.2-2.7 cm long, narrowly cylindrical, greenish yellow. Sepals 1.5-1.9 × 0.5-0.7 cm, elliptic to elliptic-oblong, acute, lateral ones slightly longer. Petals broadly oblong to obovate, 0.7-1.1 × 0.6-0.8 cm, obtuse to subacute. Lip 1.6-1.8 × 0.6-0.7 cm, spatulate with a sinus in the middle, 3-lobed, pale crimson; lateral lobes narrowly oblong, obtuse; mid lobe obovate to obcordate, obtuse or with a sinus at apex, with 3-5 parallel crenate ridges on the disc; spur 4-5 mm long, tubular, geniculate. Column 0.7-0.8 cm long, erect, creamy white. Anther operculate, shortly bilobed at the tip with maroon tinge. Pollinia 2, yellow with short oblong stipe and broad viscidium at the base. (Figure 1).

Flowering: September to October.

Distribution: India (West Bengal, Sikkim, Nagaland and Manipur), Bhutan, Myanmar, Laos, Thailand.

Specimen examined: Manipur, Tengenoupal district, Moreh, 100m, 23.08.2020, K. Chowlu 41806 (ARUN).

Habitat: Found growing in the open sun-exposed grasslands which are used for agriculture by local tribal people during monsoon period.

Notes: Possibly due to extremely difficult terrain in Northeast India or due to its rare occurrence in the wild we only found 2 specimens of the species available in Calcutta herbarium, of which one is isotype of *E. geniculata* bearing No. 282 collected by R. Pantling (CAL-0000065567!). No material was found at ASSAM and ARUN, which are premier herbaria in Northeast India holding significant British and Indian explorers' collections. In 2009, Deb *et al.* reported a single specimen of *E. geniculata*, from Nagaland. A random population analysis of the species during our field survey in Manipur resulted in the sighting of only 3 populations across a 40 km² area which substantiates that this species is very rare in nature and little known in India.



Figure 1: *Eulophia promensis*

A & B. Plant in natural habitat; C. Inflorescence fragment – close view; D. Underground pseudobulbs with roots; E. Habit; F. Inflorescence; G. Floral bract; H. Flower (front view); I. Flower (from lower side); J. Sepals and petals; K. Lip; L. Pedicellate ovary, column with lip and spur; M. Pedicellate ovary and column; N. Anther cap; O. Pollinarium; P. Capsule.

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