

Coelogyne calcicola (Orchidaceae): an addition to the flora of India^a

Nripemo Odyuo¹, Chaya Deori^{1*} & Ranjit Daimary¹

Keywords/Mots-clés : *Coelogyne*, Nagaland, new record/nouvel enregistrement.

Abstract

Coelogyne calcicola (Orchidaceae) is reported here as a new addition to the orchid flora of India from Nagaland. A detailed description and photographic illustrations are provided.

Résumé

Coelogyne calcicola (Orchidaceae) : une addition à la flore indienne – *Coelogyne calcicola* est enregistré pour la première fois en Inde sur la base d'un spécimen du Nagaland. Le taxon est décrit et illustré.

The genus *Coelogyne* Lindley 1821 comprises about 200 species distributed throughout Southeast Asia and the tropical Pacific, eastwards to Samoa. The main centres of diversity are Borneo, Sumatra and the Himalayas (Clayton, 2002; Gravendeel *et al.*, 2005); in India 39 species and 7 varieties have hitherto been reported (Misra, 2007). While on a field tour for the Botanical Survey of India to the forest area of Noklak, Tuensang district in Nagaland, North East India, in 2015, the first author collected an unidentified epiphytic orchid in vegetative condition. The plant was cultivated in the botanical garden of the Botanical Survey of India, Shillong and kept under observation. In May 2016 the plant bloomed and, after critical examination of the species and consultation of the relevant literature (Yin, 1958; Clayton, 2002; Seidenfaden, 1975), the plant was identified as *Coelogyne calcicola* Kerr, a hitherto unknown species in India (Deb & Imchen, 2008; Das & Jain, 1980; Misra, 2007; Chowdhery, 2001;

^a : manuscrit reçu le 28 juin 2016, accepté le 23 juillet 2016

article mis en ligne sur www.richardiana.com le 27/07/2016 – pp. 343-346 - © Tropicalia
ISSN 1626-3596 (imp.) - 2262-9017 (élect.)

2009; Rao, 2007). In this note, *Coelogyne calcicola* is reported as an addition to the Flora of India. A detailed description from the living specimen, photographic illustrations with other relevant information are provided for easy identification.

The collection, pressing and preparation of herbarium specimens were in accordance to the conventional herbarium techniques (Jain & Rao, 1977). Taxonomic measurements and descriptions of each part are based on living material. The floral parts were dissected using Olympus stereo-zoom microscope SZ2-ILST and photographed with Nikon COOLPIX P520.

Coelogyne calcicola Kerr in *Journal Siam Society, Natural History Supplement* 9:233, f.3.1933.

Epiphytic herb; roots 1-2.5 mm in diam.; rhizome short-creeping with imbricate scales on young shoot; pseudobulbs close together or distant, 3-4 cm apart, oblique, ovoid to ellipsoid, 4-10 cm long, 2-leaved; leaves oblong lanceolate or oblong obovate, subacute to acute, subcoriaceous, 30-32 × 6.5-6.8 cm; inflorescence hysteroanthous, erect, rigid, 10-12 cm long, 6-flowered, 6-7 imbricate bracts at interface between peduncle and rachis; floral bract 3-3.2 × 2-2.2 cm long, many-veined; pedicel and ovary 15 mm long, straight, ovary ridged; flowers spreading, 50-55 mm across, sepals and petals creamy white; sepals oblong lanceolate, with 9 prominent nerves, dorsal sepal acute or subacute, 31 × 15 mm, lateral sepals acute, 34 × 13 mm; petals linear obtuse, 31 × 5 mm, 3-nerved; lip 3-lobed, 27 × 25 mm, side lobes small, rounded, front margin fimbriate, midlobe somewhat quadrangular, 13-14 mm long, margin long fimbriate except in the apical part, callus with 2 keels extending from the base of the lip and reaching the middle of the midlobe, fimbriate at the apex, keels broadening into warty protrusion; column with foot, 31 × 7mm, white, slightly arched, hood winged; anther broadly flattened, yellowish brown, 4.5 × 4.5 mm; pollinia 4 in two pairs, yellow, unequal, 2-2.5 × 1.2-1.5 mm, oblong or subelliptic. Fig. 1.

Flowering: May

Distribution: India (Nagaland), Myanmar, China, Thailand, Laos, Vietnam.

Habitat: Epiphytic in moist subtropical forest at an altitude of 1600 m.

Specimen examined: India, Nagaland, Tuensang district, forest area of Noklak, 1600 m, *N.Odyuo* 132538, 23 May 2016 (ASSAM).

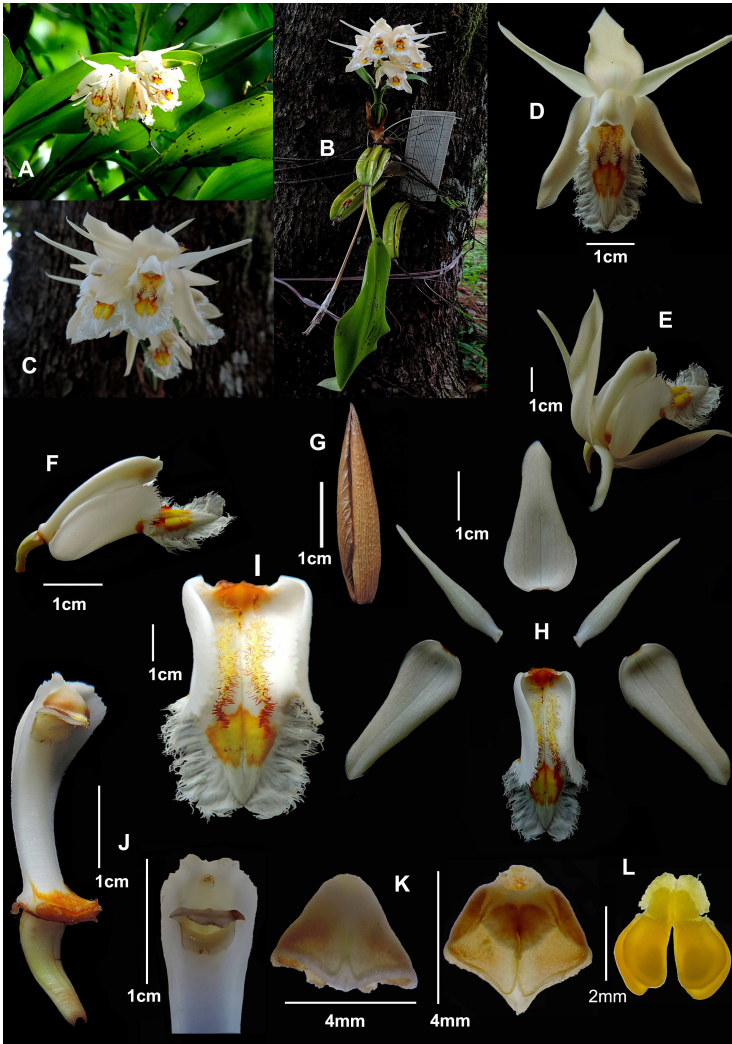


Fig. 1 : *Coelogyne calcicola*

A. a plant in situ; B. a plant in cultivation; C. inflorescence; D-E. flower, front and side views; F. lip and column, side view; G. floral bract; H. sepals and petals with lip; I. lip, front view; J. column, pedicel and ovary; K. anther, dorsal and ventral views; L. pollinia
[ph. N.Odyuo & C.Deori after N.Odyuo 132538]

Conservation status: not evaluated. The species was encountered only in one locality in India up to now. Therefore further field assessment is required in the entire areas of Tsuengsang district to ascertain its

population status. A single plant was collected for ex-situ conservation and introduced in the Garden of Botanical survey of India.

Acknowledgements

The authors are grateful to Drs. P.Singh, Director, BSI, Kolkata, A.A.Mao, Scientist-F & HoO, BSI, ERC, Shillong for support and logistics. The first author is also grateful to the PCCF, Forest Department, Government of Nagaland for their kind permission to survey in the area.

References

- Chowdhery, H.J., 2001. Orchid diversity in North-East India. *Journal of Orchid Society India* 15(1&2): 1-17.
- Chowdhery, H.J., 2009. Orchid diversity in the North-Eastern states of India. *Journal of Orchid Society India* 23(1-2): 19-42.
- Clayton, D., 2002. *The genus Coelogyne: a synopsis*. Natural History Publications, Kota Kinabalu. pp. 33-34.
- Das, S.J. & S.K.Jain, 1980. *Fascicles of Flora of India: Genus Coelogyne, Orchidaceae*. Volume 5. Botanical Survey of India.
- Deb, C.R. & T.Imchen, 2008. *Orchid Diversity of Nagaland*. Scichem Publishing House, Udaipur. pp. 1-288.
- Gravendeel, B., E.F. de Vogel & A.Schuiteman, 2005. *Coelogyne*. In: A.M.Pridgeon, P.J.Cribb, M.W.Chase & F.N.Rasmussen (eds.), *Genera Orchidacearum*, 4. Oxford University Press, New York, pp. 44-51.
- Jain, S.K. & R.R.Rao, 1977. *A handbook of Field and herbarium Methods*. Today & Tomorrows's Printer Publisher, New Delhi.
- Lindley, J., 1821. *Collectanea Botanica*. Richard & Arthur Taylor, Shoe-Lane, London, p. 41.
- Misra, S., 2007. *Orchids of Orissa*, Gajendra Singh, Gahlot shive Offset Press, Dehradun, India.
- Rao, A.N., 2007. Orchid Flora of North East India- an upto date analysis. *Bulletin of Arunachal forest Research* 23(1&2): 6-38.
- Seidenfaden, G., 1975. Orchid genera in Thailand III: *Coelogyne* Lindl. *Dansk Botanisk Arkiv Udgifvet af Dansk Botanisk Forening* 29(4): 1-94.
- Yin, T., 1958. *Coelogyne calcicola* Kerr in Burma. *The Journal of the Bombay Natural History Society* 55: 385.

1 : Botanical Survey of India, Eastern Regional Centre, Shillong-793003, Meghalaya, India

* auteur pour la correspondance - drchayadeoribsi@gmail.com