

***OBERONIA INTEGERRIMA*, AN ADDITION TO THE ORCHID FLORA OF INDIA**

K. CHOWLU*, Y. NANDA, A. NAGESWARA RAO AND S. P. VIJ
Centre for Orchid Gene Conservation of Eastern Himalayan Region (COGCEHR)
KVK-Sylvan Campus, Hengbung-795129, Manipur, India
*E-mail : krishnachowlu@gmail.com

The genus *Oberonia* established by John Lindley in 1830 is characterised by medium sized plants with fleshy, flat, ensiform leaves; sub-erect or drooping inflorescence with many densely arranged flowers; sub similar sepals and petals; entire or 3-lobed lip; very short column and 4 pollinia. It comprises of about 150-200 species with main concentration in tropical Asia and further extending to the Pacific Island, Australia and with a single species in Madagascar and tropical Africa (Averyanov, 1994; Chen & al., 2009). A review of literature reveals that, there are about 65 species reported from India of which about 28 are endemic to the country (Misra, 2007). In North East India the genus is represented by 38 species (Nageswara Rao, 2007) and 11 species are reported so far from Manipur (Sathish Kumar & Suresh Kumar, 2005; Chowlu & al., 2012).

During a field exploration at Hengbung (1248m) in Senapati District of Manipur in March 2011, a few plants of *Oberonia* have been collected in vegetative condition and brought under cultivation. The plants flowered during January 2013. A study on the flowering materials, (Seidenfaden, 1968; Chen & al., 2009) the plant was identified as *Oberonia integerrima*. On perusal of literature, it revealed that, the specie was reported so far only from China, Indonesia, Laos, Vietnam and not from India. Hence it is reported here for the first time as an addition to the orchid flora of India.

Oberonia integerrima Guillaumin in Bull. Mus. Natl. Hist. Nat., ser. 2, 26: 692. 1954; Chen & al., Fl. China 25: 244. Fig. 318 (1&2). 2009.

Stem 1 - 3cm long. Leaves jointed, 4 - 6, 4.5 - 14.5 × 0.7 - 1.4cm, laterally compressed, fleshy, ensiform, acuminate, sub-falcate, thick. Inflorescence longer than leaves, 13 - 17cm long, curved; peduncle 5 - 6cm long, compressed, narrowly winged; rachis 7 - 11cm long, densely many flowered; pedicellate ovary 1.8 - 2.0mm long, orange; floral bract 1.8 - 2.2 × 0.7 - 0.9mm, lanceolate-oblong, sub-truncate at apex, erose-serrate at margin, as long or longer than ovary. Flowers 1.0 - 1.2mm across, partly opening, orange. Sepals sub-equal, 1.0 - 1.2 × 0.9 - 1.0mm, broadly ovate, acute. Petals 1.0 - 1.1 × 0.75 - 0.85mm, ovate, acute, erose-serrate at margin. Lip 1.4 - 1.5 × 1.2 - 1.3mm, ovate, sub-acute, concave, margins laciniate-fimbriate for about three-fourth of its length from the base, orange. Column c. 0.5mm long. Anther cap c. 0.3mm long, 2 chambered. Pollinia 4, in two pairs, 0.25mm long, oblong.

Flowering : January-February.

Habitat : Epiphytes, found growing on moss covered tree branches in association with other orchids and fern species in subtropical rainforest at 1250m altitude.

Distribution : India (Manipur), China (S and SW Yunnan), Indonesia, Laos and Vietnam.

Specimen examined : Manipur, Senapati district, Hengbung, *Kipgen* 00334 (COGCEHR Herbarium, Hengbung).

Notes : While going through the protologue it has been noticed that our plants collected from Manipur exhibit some variations in flower colour (deep orange instead of greenish yellow) and distinct fimbriate margin of the lip (instead smooth-rimmed). However, we considered these differences as range of variation of the species due to the different phytogeographical locations.

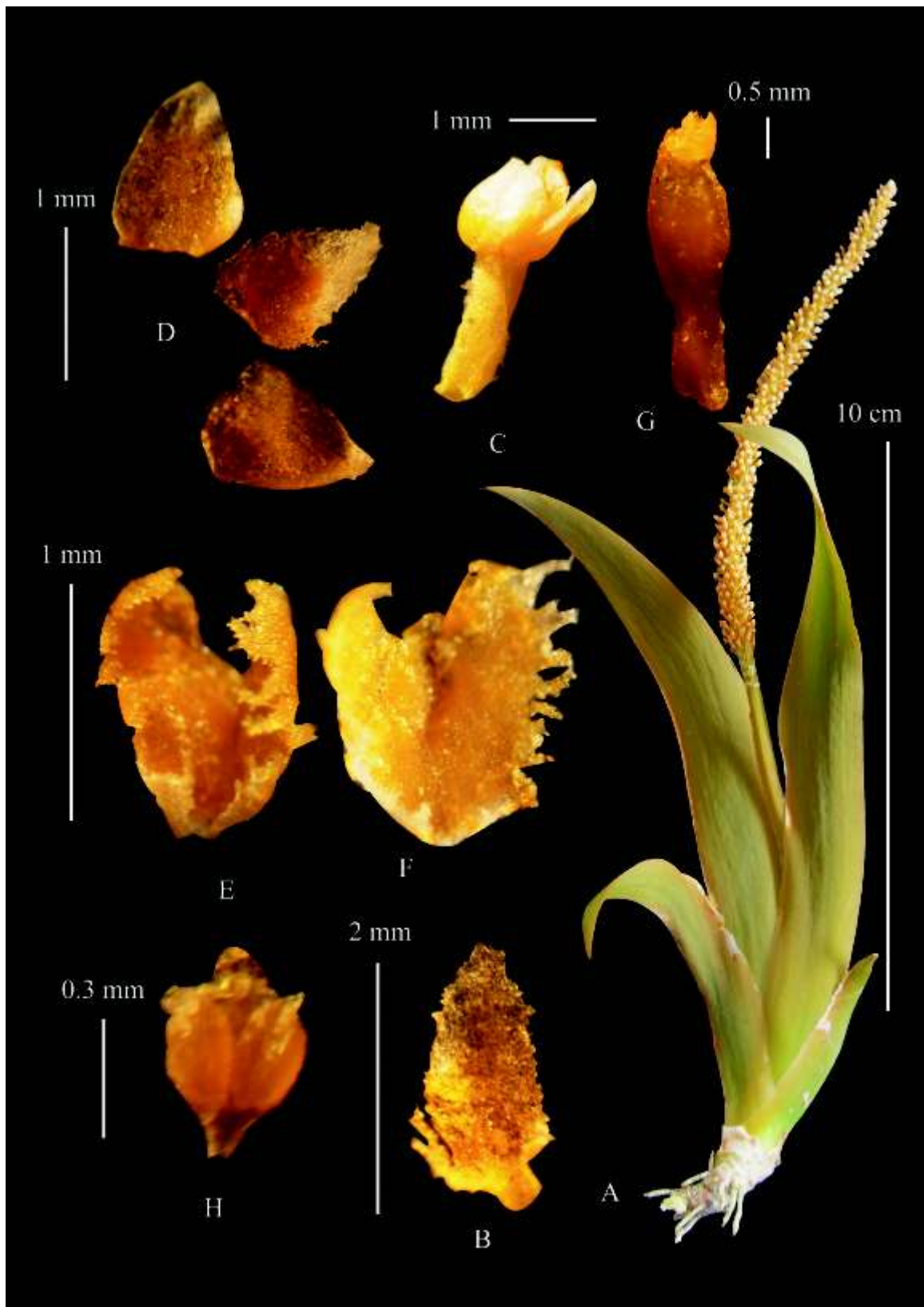


Plate 1 : *Oberonia integerrima* Guillaumin: **A.** Plant habit, **B.** Floral bract, **C.** Flower, **D.** Dissected floral parts. **E-F.** Lip, **G.** Column with pedicellate ovary, **H.** Anther cap with Pollinia.

ACKNOWLEDGEMENTS

Sincere thanks are due to Mr. H. Kipgen, President, FEEDS, Hengbung, for facility and encouragement. SERB division, Department of Science and Technology, Government of India, New Delhi, for financial support to carry out the study on orchids of the Eastern Himalayan Region is also acknowledged.

REFERENCES

- AVERYANOV, L. V. 1994. *Identification Guide to Vietnamese Orchids (Orchidaceae Juss.)*. St. Petersburg.
- CHAUHAN, A. S. 2001. A conspectus of orchids of Manipur: their status and conservation. In P. PATHAK, R. N. SEHGAL, N. SHEKHAR, M. SHARMA AND A. SOOD. (eds.). *Orchids: Science and Commerce*. 81-99. Bishen Singh and Mahendra Pal Singh, Dehra Dun, India.
- CHEN, Q., Z. J. LIU, G. H. ZHU, K. Y. LANG, Z. H. JI, Y. B. LUO, X. B. JIN, P. J. CRIBB, J. J. WOOD, S. W. GALE, P. ORMEROD, J. J. VERMEULEN, H. P. WOOD, D. CLAYTON, & A. BELL, 2009. *Orchidaceae*. – In: Z. Y. WU, P. H. RAVEN, & D. Y. HONG (eds.). *Flora of China*, Science Press, Beijing & Missouri Botanical Garden Press, St. Louis.
- CHOWLU, K., A. NAGESWARA RAO, & S. P. VIJ. 2012. *Oberonia jenkinsiana* Griffith *ex* Lindley (Orchidaceae) - an addition to the flora of Manipur, India. *Pleione*. 6 (2): 406 - 408.
- MISRA, S. 2007. *Orchids of India- A glimpse*, Bishen Singh Mahendra Pal Singh, Dehra Dun, India. pp. 280–322.
- NAGESWARA RAO, A. 2007. Orchid Flora of North East India. An update Analysis. *Bull. Arunachal Forest Research* 23 (1 & 2): 6-38.
- SATHISH KUMAR, C. & P. C. SURESH KUMAR 2005. An Orchid Digest of Manipur, Northeastern India. *Rheedea* 15(1): 1-70.
- SEIDENFADEN, G. 1968. The genus *Oberonia* in mainland Asia. *Dansk Bot. Arkiv* 25(3): 1-125.