

***Phalaenopsis malipoensis* Z.J. Liu & S.C. Chen [Orchidaceae] – a new record for flora of India**

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Abstract

Phalaenopsis malipoensis Z.J. Liu & S.C. Chen, a newly recorded species of Orchidaceae for the orchid flora of India, is described. This species resembles with *Phalaenopsis lobbii* and *P. parishii*, but differs by having narrower petals, not zigzag rachis and a large callus on the mid lobe of the lip which is deeply forked with each arm dividing into 2 filiform linear antennae.

Key words: *Phalaenopsis*, *Phalaenopsis malipoensis*, Orchidaceae, new record, India

INTRODUCTION

The Garampani Wildlife Sanctuary is one of the most important forests of Assam. This Sanctuary was notified during 1952 [vide notification No, FR. 199/52 dated 10.07.1952] with an area of 6 sq km. The entire sanctuary is situated within the Karbi Anglong Autonomous Council area. Geographically it is located between 92°22' E to 92°53' E and 26°22' N to 26°24' N. The climate is moist tropical, summers being hot and winters are dry and cold. It receives an annual rainfall of approx 2800 mm and annual temperature varies between 34° C to 7° C. The vegetation of the sanctuary is predominantly tropical semi-evergreen.

During the field explorations in Garampani Wildlife Sanctuary in 2nd March, 2011, under Karbi Anglong Documentation Program, a species of *Phalaenopsis* was collected in its flower-bud stage. It flowered in 14th April, 2011. On critical examination, it was identified as *Phalaenopsis malipoensis* Z.J. Liu & S.C. Chen. Scanning through the literature (Misra, 2007; Kumar & Manilal 1994; Hooker, 1890; Pradhan, 1979) reveals that it was earlier not recorded from India, hence the present collection represents its first record for India.

The genus *Phalaenopsis* was first described by Carl Ludwig Blume in 1825. About 40 species distributed mainly in Indonesia and Philippines, with some species extending to mainland Asia and Australia (Liu *et al.*, 2005). Seven of them are found in India (Misra, 2007).

***Phalaenopsis malipoensis* Z.J. Liu *et* S.C. Chen, Acta Bot. Yunnan. 27: 37. 2005; Chen *et al.* Orchidaceae, in Fl. China. 25: 481. 2009. [PLATE – I: Figs. 1 – 4]**

Plants epiphytic. Roots flattened, green. Stems short, enclosed in leaf sheaths. Leaves 2–3, subbasal, deciduous, usually 2 at flowering time, slightly fleshy, oblong to elliptic, 4.5–7 × 3–3.6 cm, base broadly cuneate- rounded, apex obliquely obtuse to acute. Racemes slender, 8–15

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cm, longer than leaves, laxly 5 – 8 flowered, some times more; peduncle green, with 2–4 membranous sheaths. Rachis erect or suberect. Bracts triangular-lanceolate, acuminate. Flowers 1.2–1.6 cm across, sepals and petals white with tinged yellowish, lip white and orange-yellow, tinged brownish on disk and central part of mid-lobe, column white with 1 or 2 crescent or semiorbicular brown markings at base in front. Dorsal sepal oblong-elliptic, 7–9 × 3–4 mm, obtuse; lateral sepals obliquely ovate-elliptic, 6–7 × 4–5 mm, base adnate to column foot, sometimes dorsally carinate. Petals spatulate or narrowly obovate, 6–8 × 2–3 mm, rounded. Lip 3-lobed; lateral lobes erect, subparallel, sublanceolate, 2–3 mm, with 2 orange and brownish tinged calli on disk in between; mid-lobe mobile, triangular, 4–5 × 6–7 mm, with deeply forked callus at base, a crested crescent-shaped appendage transversely lying near middle, each arm of callus dividing into 2 filiform-linear antennae. Column 4–5 mm, foot 1–2 mm. Pollinia 2.

Flowering: April – May

Exsiccatae: Garampani Wildlife Sanctuary, Karbi Anglong, Assam, *Gogoi 0710*, dated-02.03.2011. ASSAM.

Habitat: Epiphyte in forest along with a water body, in a shady spot.

Distribution: India (Assam- Garampani Wildlife Sanctuary) and China (Malipo County, South Yunnan).

Status: Rare, the species was found only in Garampani Wildlife Sanctuary, Karbi Anglong, Assam.

Note: *Phalaenopsis malipoensis* is similar to *P. lobbii* and *P. parishii*, but differs by having narrower petals, not zigzag rachis and a large callus on the mid lobe of the lip which is deeply forked with each arm dividing into 2 filiform linear antennae.

CONSERVATION ASPECTS

The forests of Karbi Anglong District support a large number of beautiful and important orchids. There are some sporadic reports on the native orchid species of the district (Gogoi, 2012; Gogoi et al, 2012 etc). Though some works on the orchids of Karbi Anglong are done, but the situation of orchid study, their preservation and propagation is very pitiable. Incidentally, unregulated forest destruction has led to the depletion of orchid habitats. The orchids are also faced with heavy collection pressures for economic purposes. Proper enumeration of these species and their conservation are very much needed and greatly emphasized.

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LITERATURE CITED

Chen, X.; Liu, Z.; Zhu, G.; Lang, K.; Ji, Z.; Luo, Y.; Jin, X.; Cribb, P.J.; Wood, J.J.; Gale, S.W.; Ormerod, P.; Vermeulen, J.J.; Wood, H.P.; Clayton, D. & Bell, A. 2009. *Orchidaceae*, in: Wu, Z.; Raven, P.H. & Hong, D. (eds), *Flora of China*. Vol. 25. Science Press, Beijing; Missouri Botanical Garden Press, St. Louis, USA.

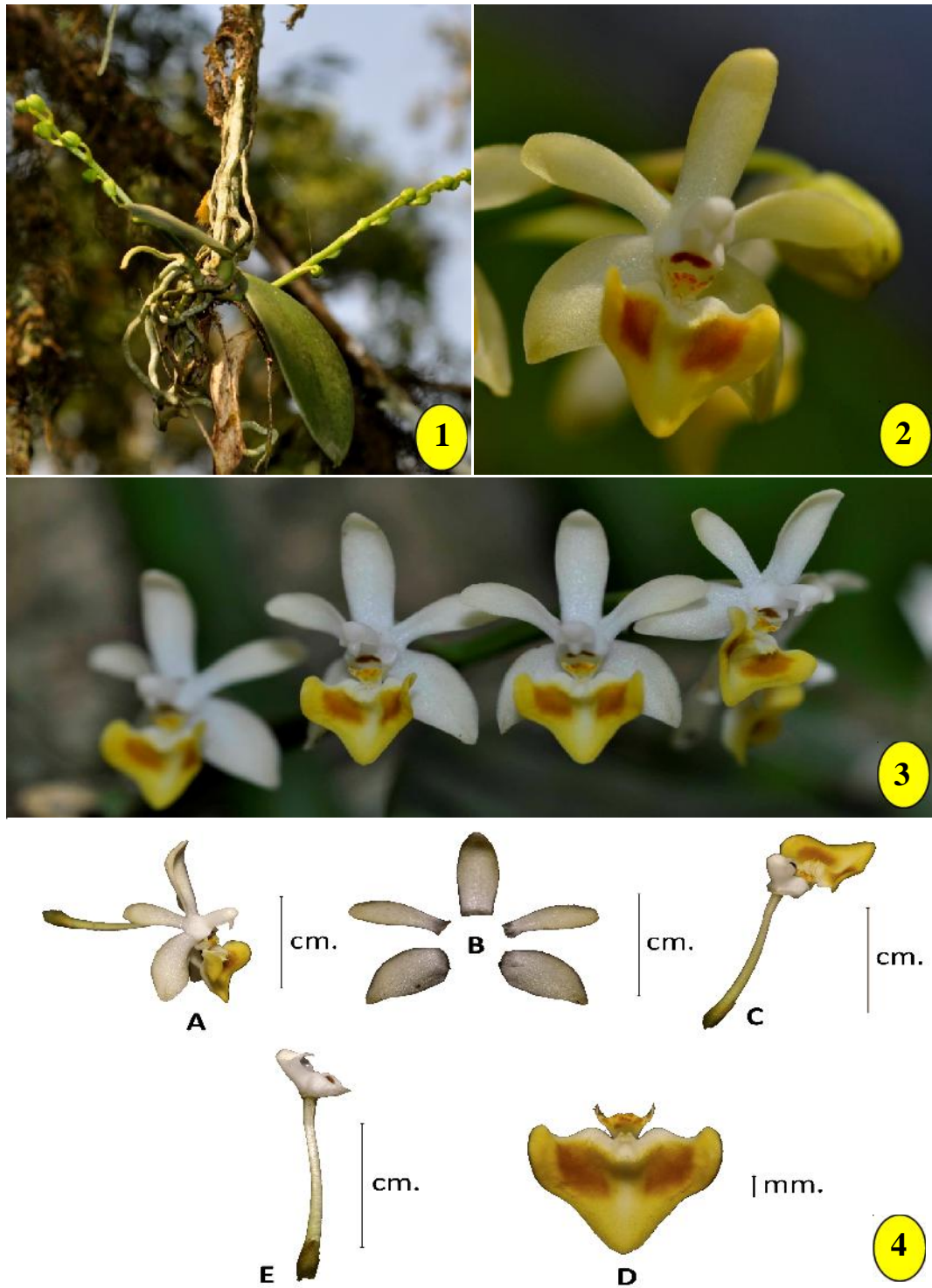


PLATE - I: *Phalaenopsis malipoensis* Z.J. Liu *et* S.C. Chen. **Fig. 1:** Plant with inflorescence. **Fig. 2:** Close view of flowers; **Fig. 3:** Flower with inflorescence **Fig. 4:** A. flower, B. perigone, C. lip with ovary & column, D. lip, E. ovary & column

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- Gogoi, K. 2012. Six New Records for the Orchid Flora of Assam, India. *Journal of Non-Timber Forest Products*. 19(1): 59–62
- Gogoi, K.; Das R. & Yonzone, R. 2012. Ecological status, diversity resources and distribution of the little known genus *Tainia* Blume (Orchidaceae) in Assam of North East India. *Bioscience Discovery*. 3(2): 155–159
- Gogoi, K.; Das R. & Yonzone, R. 2012. Orchid diversity of Assam, India: The Genus *Micropera* Lindley in: *International Journal of Pharmacy & Life Sciences*. 3(9): 1987-1990
- Gogoi, K.; Das R. & Yonzone, R. 2012. Present Ecological Status, Diversity Resources, and Distribution of the Genus *Thrixspernum* Loureiro, A Little Known Epiphytic Orchid species in Assam of North East, India in: *The Mc Allen International Orchid Society Journal*. 13(5) 7–14
- Hooker J.D. 1890. Orchidaceae. in: *Flora of British India*. L. Reeve and Co., Ashford, Kent. V: 687 – 864 & VI: 1 – 198
- Kumar, S. & Manilal, K.S. 1994. *A Catalogue of Indian Orchids*. Bishen Singh Mahendra Pal Singh, Dehra Dun, India
- Liu, Z.J.; Chen, S.C. & Ru, Z.Z. 2005. *Phalaenopsis malipoensis*, a New Species of Orchidaceae from China. *Acta Botanica Yunnanica*. 27(1): 37–38
- Pradhan U.C. 1979. *Indian Orchids Guide to Identification and Culture*. Vol- II. Thomson Prass, Faridabad, India