

EULOPHIA ZOLLINGERI AND PELATANThERIA INSECTIFERA TWO NEW ADDITIONS TO THE ORCHID FLORA OF MANIPUR

Y. NANDA*, K. CHOWLU, G. AKIMPOU AND A. NAGESWARA RAO

*Centre for Orchid Gene Conservation of Eastern Himalayan Region
KVK-Sylvan Campus, Hengbung, P.O. Kangpokpi – 795129,
Senapati District, Manipur, India
E-mail: nandayumnam@gmail.com

INTRODUCTION

During recent field explorations in Chandel, Senapati and Ukhrul Districts of Manipur conducted by a team of scientists from the Centre for Orchid Gene Conservation of Eastern Himalayan Region (COGCEHR), two interesting orchid species viz. *Eulophia zollingeri* (Rchb.f.) J.J. Sm. and *Pelatantheria insectifera* (Rchb.f.) Ridl. have been collected. The former is a mycotroph reported so far from Sikkim, Meghalaya and Arunachal Pradesh while the later is an epiphyte reported from Sikkim, Assam, Meghalaya, Nagaland and Tripura in N.E. India. After a critical review of literature (J.D. Hooker, 1890 & 1895; Duthie 1906; Haines, 1924; Seidenfaden, 1969; Saldanha, 1974; Kataki & al., 1984; Deva & Naithani, 1986; Chowdhery, 1998; Pearce & Cribb, 2002; Sathish Kumar & Manilal 2004; Sathish Kumar & Suresh Kumar, 2005; Lucksom, 2007; Misra, 2007; Rao, 2007; Nanda & al., 2014) it has been noted that these two species have not been reported so far from Manipur. Hence, the present report of the occurrence of these two taxa forms a new distributional record to the state. The two species are enumerated below with full description and colour illustrations to facilitate field botanists to locate them in other parts of the country.

Eulophia zollingeri (Rchb.f.) J.J. Sm., Orch. Java: 228, 1905; Sathish Kumar & Mainlal, Orch. Mem. Trib. Gunnar Seiden f.: 190, f. 12, 2004. *Cyrtopera zollingeri* Rchb.f. in Bonpalandia 5: 38, 1857. *C. Sanguinea* Lindl. in J. Proc. Linn. Soc., Bot. 3: 32, 1859. *Eulophia macrorhiza* Bl., Coll. Orchid.: 155, t. 63, f. 2, 1859. *E. sanguinea* (Lindl.) Hook.f. Fl. Brit. Ind. 6: 8. 1890. *E. emiliana* Saldanha in Ind. For. 100: 566. t. 1, 1974.

Leafless mycotrophic orchid found on thick leaf litter of mixed deciduous subtropical rainforest floors in association with some angiospermic species of *Begonia*, *Achyranthes*, *Piper* etc.

Plant upto 70 cm. Floral bract c. 4 × 0.7 cm, linear-lanceolate, acuminate. Flowers reddish-purple. Sepals sub-equal, elliptic-oblong, acute, dorsally keeled; dorsal sepal c. 2.8 × 1.2 cm, acute to sub acute, arched, glabrous; lateral sepals c. 3.1 × 1.4 cm, spreading, cymbiform in upper half. Petals c. 2 × 1.1 cm, oblong-ovate, minutely apiculate, reddish brown with median narrow yellowish-green stripes at the basal half. Lip c. 1.9 × 1.7 cm, oblong, 3 lobed, deflexed from middle; lateral lobes narrow with triangular acute front margins; apical lobe triangular-ovate, obtuse.

Flowering: June

Specimen examined: Senapati District, Hengbung, 1252 m, 25°14.17'N, 93°59.72' E. Akimpou 00531 (COGCEHR Herbarium, Hengbung, Manipur)

Distribution: INDIA: Sikkim, Arunachal Pradesh, Meghalaya, Manipur, West Bengal, Karnataka & Kerala; AUSTRALIA; INDONESIA; JAPAN; MALAYSIA; NEW GUINEA; PHILLIPINES; THAILAND.

Pelatantheria insectifera (Rchb.f.) Ridl. in J. Linn. Soc. Bot. 32: 376. 1896; Seidenf. Bot. Tidsskr. 65: 152, f. 36. 1969; Kataki et al. Pl. Cons. Bull. 5: 27. 1984. *Sarcanthus insectifer* Rchb.f. in Bot. Zeit. 15: 159. 1857; Hook.f. Fl. Brit. India 6: 68. 1890 & in Ann. Roy. Bot. Gard. Calcutta 5: 52. t. 78. 1895; Duthie in Ann. Roy. Bot. Gard. Calcutta 9: 149. 1906; Haines, Bot. Bihar & Orissa: 1179. 1924.

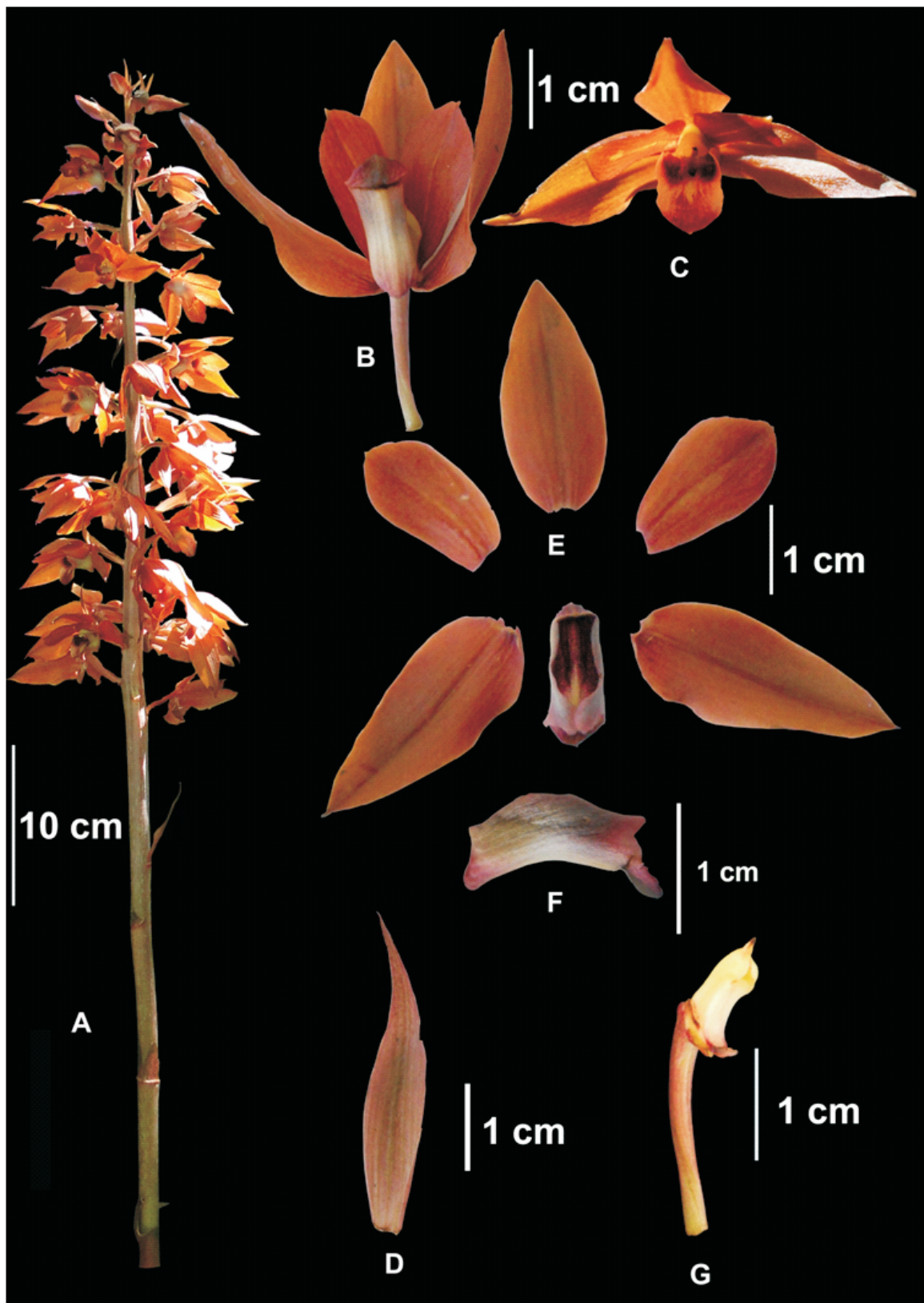


Plate 1. *Eulophia zollingeri* (Rchb.f.) J.J. Sm. **A.** Inflorescence; **B & C.** Front view of flower; **D.** Bract; **E.** Perianth parts; **F.** Lateral view of lip; **G.** Column with ovary.

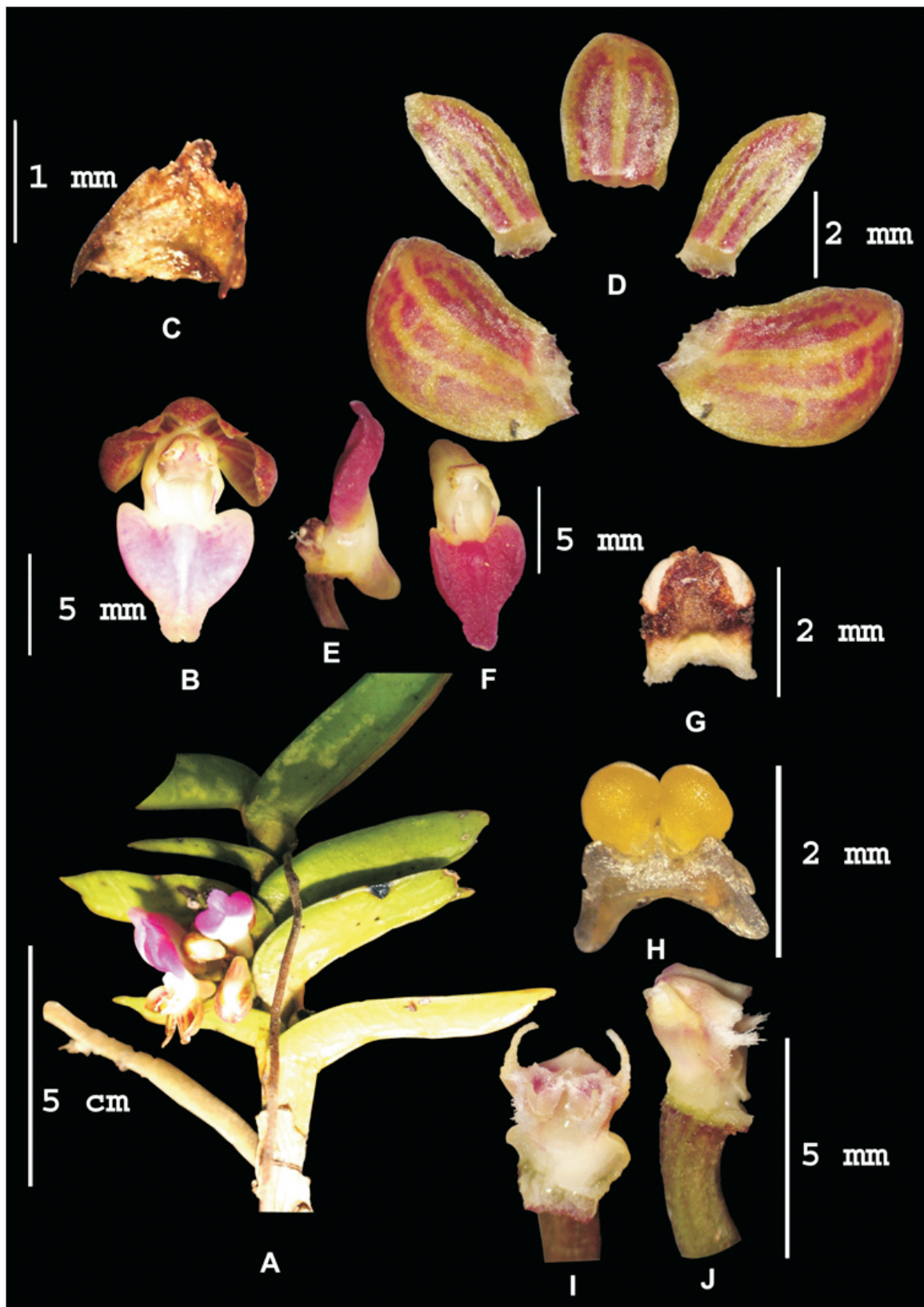


Plate 2. *Pelatantheria insectifera* (Rchb.f.) Ridl. **A.** Habit; **B.** Front view of flower ; **C.** Bract; **D.** Sepals and petals; **E.** & **F.** Lateral and front view of lip; **G.** Anther cap; **H.** Pollinarium; **I** & **J.** Front and lateral view of column with ovary.

Medium size epiphyte found growing on moss covered branches of large trees in association with some other epiphytic orchid species of *Dendrobium*, *Eria*, *Pholidota* etc. in mixed deciduous tropical forest to subtropical forest.

Plant up to 9-12 cm. Stem scandent. Leaves 2 – 5 × 1 – 1.5 cm, deeply channelled, equally or unequally bilobed, obtuse, with a mucron in the sinus. Inflorescence c. 1.5 cm long, sub-sessile, 2 – 5 flowered. Bract c. 5 × 2 mm, ovate, acute. Flower 0.8 – 1 cm across, 1 – 1.2 cm long. Sepals and petals 3 nerved, greenish yellow striped with red. Dorsal sepal c. 4 × 2.5 mm, oblong-ovate, obtuse or sub-acute. Lateral sepals c. 6 × 4 mm, oblong obovate, obtuse. Petals c. 4.5 × 1.5 mm, oblong, sub acute. Lip 0.9 – 1.2 × 0.6 – 0.7 cm, 3 lobed, fleshy, purplish pink; mid lobe 7 – 9 × 7 mm, larger than the sepals, cordate, obtuse, thickened at the apex; lateral lobes c. 2 × 4 mm, short, rounded, incurved. Spur 4 – 5 × 4 mm, septate. Column 2 – 3 × 2.5 mm; columnar processes long, slender, horn-like; rostellar processes hairy. Anther cap c. 1 × 2 mm. Pollinia 2, yellow, globose; viscidium horse-shoe shape. Ovary 0.6 – 0.9 × 0.15 cm, green.

Flowering: November - February

Specimens examined: Senapati District, Hengbung, 1298 m, 25°13.71'N, 94 °00.12'E, Nanda 00530 (COGCEHR Herbarium, Hengbung, Manipur); Chandel District, *H. Mongjang*, 515 m, 25°13.82'N, 94 °00.21'E, Akimpou 00529 (COGCEHR Herbarium, Hengbung, Manipur)

Distribution: INDIA: Uttarakhand, Sikkim, Arunachal Pradesh, Assam, Meghalaya, Nagaland, Tripura, Manipur, Bihar & Madhya Pradesh; BANGLADESH; BURMA; THAILAND.

ACKNOWLEDGEMENTS

Thanks are due to Mr. H. Kipgen, President, FEEDS/KVK, Hengbung, for facilities and encouragement and to SERB, Department of Science and Technology, Government of India for financial assistance.

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