

## ***Alpinia blepharocalyx* var. *glabrior* (Handel-Mazzetti) T.L. Wu [Zingiberaceae]: a new record for Manipur, India**

**Pantilunglu Daimeip<sup>1</sup> and Yogendra Kumar**

Centre for Advanced Studies, Department of Botany, North-Eastern Hill University,  
Shillong 793022, Meghalaya, India

<sup>1</sup>Corresponding author: daimeip@yahoo.com

[Received 05.10.2013; accepted 25.11.2013]

### **Abstract**

*Alpinia blepharocalyx* var. *glabrior* (Handel-Mazzetti) T.L. Wu of Zingiberaceae is reported as a new distributional record for the state of Manipur. A detailed description, illustrated photographs of the species are provided for easy identification.

**Key words:** *Alpinia blepharocalyx* var. *glabrior*, New record, Manipur

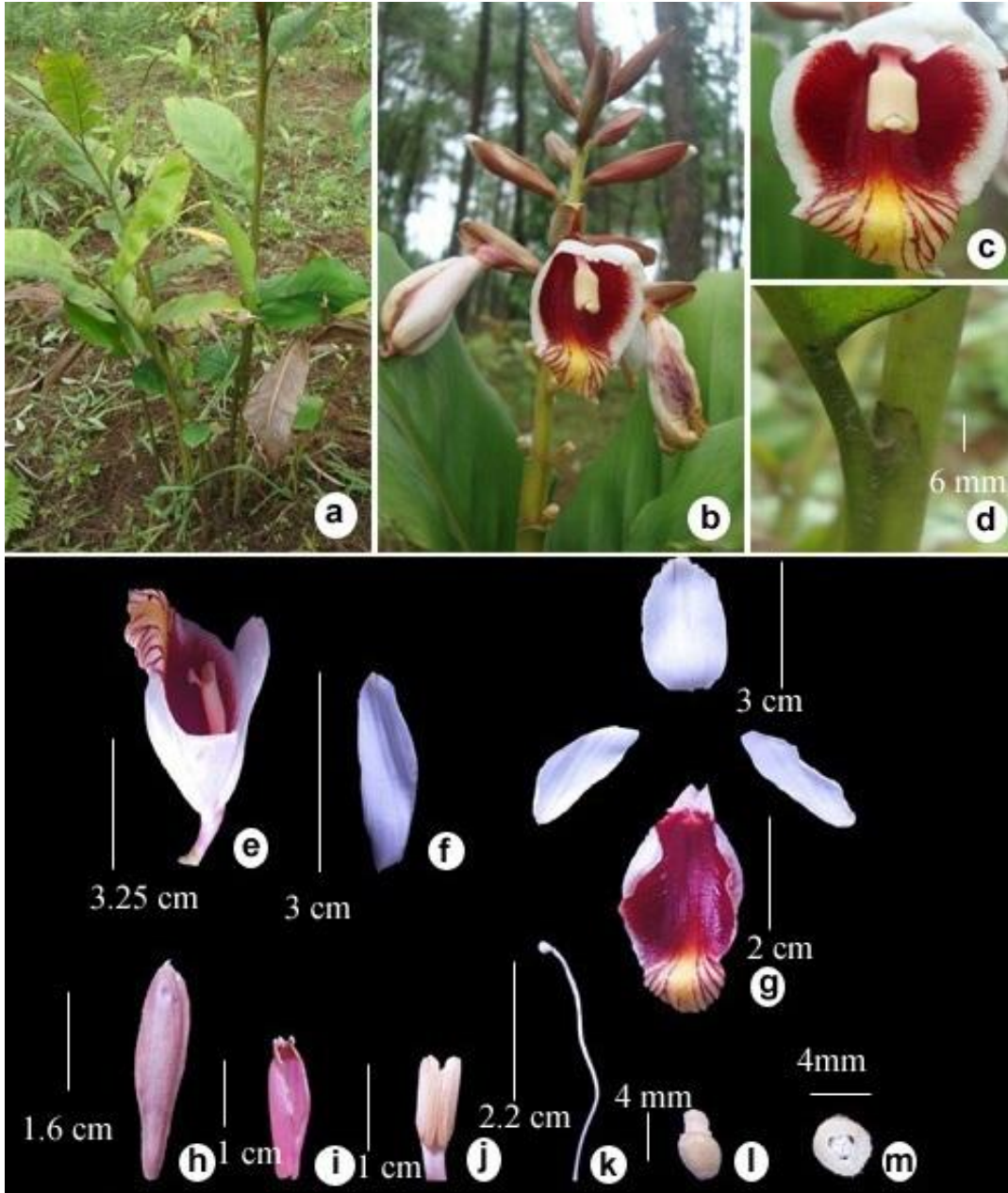
### **INTRODUCTION**

The genus *Alpinia* was first described by Roxburgh in 1810. It is the largest and most widespread genus of Zingiberaceae with some 200 (Mabberley 2008) to 230 species (Mangaly & Sabu 1992; Larsen *et al* 1998; Smith; 1990) occurring mainly in subtropical and tropical rain forest of Asia, Australia and Pacific Islands (Wu & Larsen 2000). The genus is represented by seventeen species in the India (Baker 1890-1892) and 3 species were recorded from Manipur namely *A. galanga*, *A. nigra*, and *A. zerumbet* (Sharma *et al.* 2011).

During the field exploration in June 2010, this species has been collected from Tousem subdivision of Tamenglong district of Manipur, along with other plants of this family and introduced in the Botanical garden of the North Eastern Hill University, Shillong. The species bloomed after three years in July 2013, and on critical study it was identified and confirmed as *A. blepharocalyx* var. *glabrior* (Handel-Mazzetti) T.L. Wu with the help of available flora and literature (Saensouk *et al* 2003; Wu and Larsen 2000). The present collection forms a new record at the varietal level for the state of Manipur. The present paper provides brief description, habitat and illustrated photographs *Alpinia blepharocalyx* var. *glabrior* to facilitate its easy identification.

### **Key to the varieties of *Alpinia blepharocalyx***

1. Lamina densely pubescent abaxially; corolla tube 2–2.5 cm long .... var. *blepharocalyx*
1. Lamina sparsely hairy or glabrous abaxially along the margin; corolla tube 1.4–1.8 cm long . ..... var. *glabrior*



**PLATE – I.** *Alpinia blepharocalyx* var. *glabrior* (Handel-Mazzetti) T. L. Wu. **a.** Habit; **b.** Inflorescence; **c.** Close-up view of flower; **d.** Ligule; **e.** Flower; **f.** Lateral sepal; **g.** Floral perigone with lip; **h.** Bracteoles; **i.** Calyx; **j.** Stamen; **k.** Side view of style with stigma; **l.** Ovary with epigynous gland; **m.** C.S. of ovary

*Alpinia blepharocalyx* var. *glabrior* (Handel-Mazzetti) T.L. Wu in T.L.Wu & S.J. Chen, Acta Phytotax. Sin. 16(3): 35. 1978; Wu, Tsai, Tong, Chen, Zhao & Li, Fl. Reip. Pop. Sin. 16(2): 90. 1981; Shan in Wu & Raven, Fl. China 24: 339. 2000. *Languas blepharocalyx* var. *glabrior* Handel-Mazzetti, Symb. Sin. 7: 1322. 1936. [PLATE - I]

**Holotype:** China, *Handel-Mazzetti* 5750.

Leafy shoots 0.9 – 2 m tall. Pseudostem c. 6 – 12 leaved; leaf-sheaths and petiole shortly pubescent along margin near base of ligule; ligules 0.7 – 0.8 cm; petioles 1 – 4 cm long, glabrous; lamina oblong to lanceolate, 20 – 60 x 7 – 12 cm, acuminate, base rounded, both surfaces glabrous. Raceme drooping, 19 – 22 cm long, covered with 1 broad sheath when young; peduncle 1 – 10 cm long, shortly pubescent; rachis stout, 15 – 20 cm long, densely brown pubescent, bearing many cincinni, peduncles of 1-flowered cincinni 0.5 – 1 cm long, densely brown pubescent. Bracts absent; bracteoles green to dark red when young, dry and brittle when mature, broadly obovate when flattened, 2.7 – 3.2 x 2 – 2.2 cm, apex equally bilobed, pubescent. Calyx tubular, 1.8 – 2 x 1 cm, unequally 3-lobed, deeply split to 1 cm on one side, pubescent; corolla tube 1.4 – 1.8 cm long, shorter than calyx, pubescent; dorsal corolla lobe oblong, 3 – 3.3 x 1.5 – 1.8 cm, apex bluntly hooded, shortly pubescent; lateral lobes smaller, oblong, 2.8 – 3.1 x 0.8 – 1.2 cm, apex bluntly hooded, shortly pubescent; labellum strongly concave, red, yellow along margins, obovate to suborbicular, 3.7 – 5 x 3.5 – 4 cm, margin crinkled, apex 3-lobed, 2 lobes nearly equal, mid-lobe small, apex 2- to 3- dentate, pubescent at base of labellum; lateral staminodes small, curved, red, needed like filiform, 4.5–8 mm long, acuminate or unequally 2-dentate, sparsely pubescent. Filaments 12 – 20 x 4 mm, glabrous or sparsely shortly pubescent; anthers 10 – 15 x 4 – 6 mm; anther-crest 1 mm long, acute, shortly pubescent along margin or wanting. Epigynous glands 2, ca. 3.5 – 5 mm long. Ovary ovoid, 4 – 6 x 3 – 4 mm, densely pubescent; style slender 4.4 cm long, glabrous; stigma 1mm, cup-shaped glabrous. Fruits not seen.

**Flowering period:** March – July

**Habitat:** Forest margins and ditches; 628 – 1063 m

**Exsiccata:** NEHU, *P. Daimei TML 020*, 2<sup>nd</sup> July 2013.

**Distribution:** NE INDIA (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram and Tripura), BANGLADESH, SOUTH CHINA, LAOS, MYANMAR, THAILAND, VIETNAM.

### Acknowledgements

The authors are thankful to Prof. M. Sabu of Calicut University for providing valuable information about the distribution of the plant. They are also grateful to unknown reviewers for their valuable corrections and suggestions. The first author is also grateful to UGC for a Rajiv Gandhi National Fellowship (RGNF) for the study.

### LITERATURE CITED

- Baker, J.G. 1890 – 1892. Scitamineae in Hooker, J.D. *Flora of British India*. Reeve, London. 6: 225 – 233.
- Larsen, K.; Lock, J.M.; Maas, H. & Maas P.J.M. 1998. Zingiberaceae. In K. Kubitzki [ed.], *The families and genera of vascular plants*. 4: 474 – 495. Springer-Verlag, Berlin, Germany.
- Mabberley, D.J. 2008. *The Plant Book: A Portable Dictionary of the Vascular Plants* (3<sup>rd</sup> Edn.). Cambridge University Press, Cambridge.
- Mangaly, J.K. & Sabu, M. 1992. A taxonomic Revision of the South Indian *Alpiia* Roxb. (Zingiberaceae). *Rheedea* 2(1): 38 – 51.

- 570 Occurrence of *Alpinia blepharocalyx* var. *glabrior* in Manipur
- Saensouk, S.; Chantaronothai, P. & Larsen, K. 2003. Notes on the genus *Alpinia* (Zingiberaceae) in Thailand. *Thailand For. Bull. (BOT.)* 31: 95 – 104.
- Sharma, G.J.; Chirangini, P. & Kishor, R. 2011. Gingers of Manipur: diversity and potentials as bioresources. *Genet. Resour. Crop Evol.* 58: 753 – 767.
- Smith, R. M. 1990. *Alpinia* (Zingiberaceae): a proposed new infrageneric classification. *Edinb. J. Bot.* 47: 1 – 75.
- Wu, T.L. & Larsen, K. 2000. Zingiberaceae in: Wu, Z.Y. & Raven P.H. *Flora of China*. Beijing: Science Press. 24: 322 – 377.