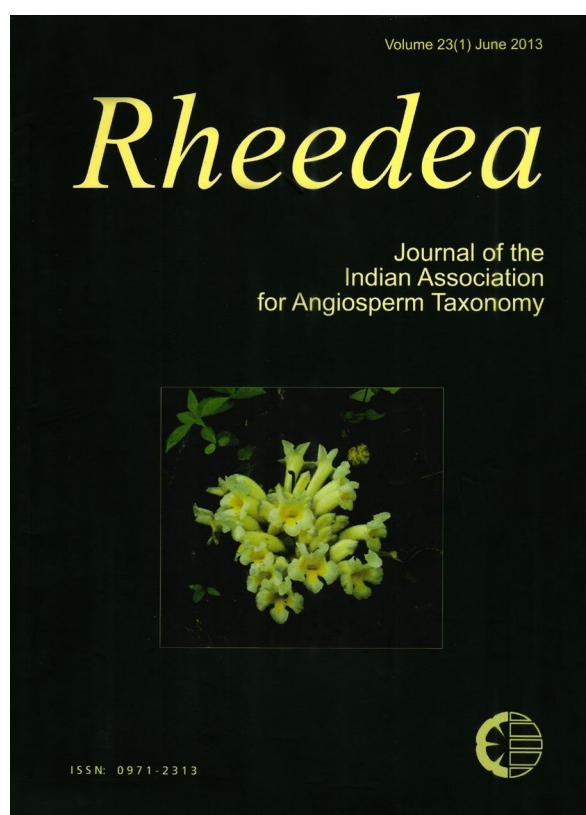




Zingiber neotruncatum (Zingiberaceae): A new distributional record for India

Sabu M., Sreejith P.E., Alfred Joe & A.K. Pradeep



How to cite:

Sabu M., Sreejith P.E., Joe A. & A.K. Pradeep 2013. *Zingiber neotruncatum* (Zingiberaceae): A new distributional record for India. *Rheedeia* 23(1): 46-49.

<https://dx.doi.org/10.22244/rheedeia.2013.23.01.13>

Received: 08.02.2012

Revised and accepted: 29.05.2013

Published in print: 30.06.2013

Published Online: 30.06.2013



Zingiber neotruncatum (Zingiberaceae): A new distributional record for India

Sabu M.*, P.E. Sreejith, Alfred Joe and A.K. Pradeep

Department of Botany, University of Calicut, Calicut University P.O., Kerala – 673 635, India.

*E-mail: msabu9@gmail.com

Abstract

Zingiber neotruncatum T.L. Wu *et al.*, is being reported as a new addition to the Indian flora. A detailed description, illustration and photographs are provided for easy identification of the species.

Keywords: Arunachal Pradesh, India, New Record, *Zingiber neotruncatum*, Zingiberaceae

Introduction

The genus *Zingiber* Boehm. is represented by 141 species (Theilade, 1999; Theilade & Mood, 1999). It is distinct from other genera of the family in having a single anther with a beak or horn-like appendage, which embraces the upper part of the style. It can also be distinguished in the vegetative stage by the presence of a pulvinus between the base of the petiole (Sabu, 2006). The genus is represented by 14 species in India and 8 species in South India (Sabu, 2003). This interesting *Zingiber* was collected from the state of Arunachal Pradesh, NE India during a floristic exploration in 2003. The collected rhizomes planted at home garden of Sabu started flowering in July 2012. After a detailed study of the specimens along with available literature, it was found to be a new addition to the ginger flora of India. The plant was first described by S. Q. Tong in 1987 as *Zingiber truncatum*, based on a collection from Jinghong in South Yunnan, China. As this name was a later homonym of *Z. truncatum* Stokes (1812), Wu *et al.* (2000) proposed a new name, *Zingiber neotruncatum* T.L. Wu, K. Larsen & Turland for this taxon.

Z. neotruncatum is so far known to be restricted to Yunnan, China, Vietnam and Thailand. A detailed description of this taxon was given in *Flora of China* (Wu & Larsen, 2000). We could not find any mention regarding the distribution of this species in India. Hence, we report this species as a new distributional record and an addition to the ginger flora of India. A detailed description along with illustrations and colour photographs (Fig. 1, 2) are provided for easy identification.

Zingiber neotruncatum T.L. Wu, K. Larsen & Turland, Novon 10(1): 91. 2000; Wu, T.L. & K. Larsen in: Z. Wu & P.H. Raven, *Fl. China*. 24: 325. 2000. **Fig. 1, 2**

Z. truncatum S. Q. Tong, Acta Phytotax. Sin. 25: 147. 1987 *non* Stokes, Bot. Mat. Med. 1: 68. 1812. Type: CHINA, Yunnan, Jinghong, 810 m, 12. 08. 1984, S.Q. Tong & S. Liu 24935 (Holotype, YNTBI).

Plants annual, rhizome pleasantly aromatic. Rhizome subterranean, creeping, main branch 1.5–2 cm thick, yellow inside with many roots. Leafy shoot 90–168 cm high; bladeless sheath hairy, basal sheaths purplish-red and upper one reddish green with red margins; pseudostem 70–153 cm, covered by cylindrical and completely closed leaf sheath. Leaves 13–31, at a distance of 4–11 cm, dark green, pubescent at base and along the mid vein beneath; ligule 0.3–0.5 × 1.6–2 cm, lobes 2; lamina linear-lanceolate, 30–45 × 3.5–5.8 cm, tip acuminate, base obovate, pulvinate, 3–4 × 3 mm thick, red. Inflorescence oblong-ovate on separate leafless peduncle; peduncle erect, 6–13 cm long, completely ensheathed by sterile bracts, 3.8–4.1 × 2–2.3 cm, lanceolate with pointed tips, greyish green, margin hyaline, externally pubescent. Spike 6–6.5 cm long, oblong, green. Bract ovate c. 4 × 3 cm, green-greenish white, margins hyaline; bracteole ovate-obovate, a little shorter than the bract, 2.7–2.8 × 1.9–2.2 cm, translucent white, tip obtuse and split, margins smooth. Flowers 7–7.5 cm long, 1 or 2 at a time, creamy white. Calyx c. 2.5 cm long, tubular, glabrous, hyaline, 2-toothed, not much deeply notched. Corolla tube slender,

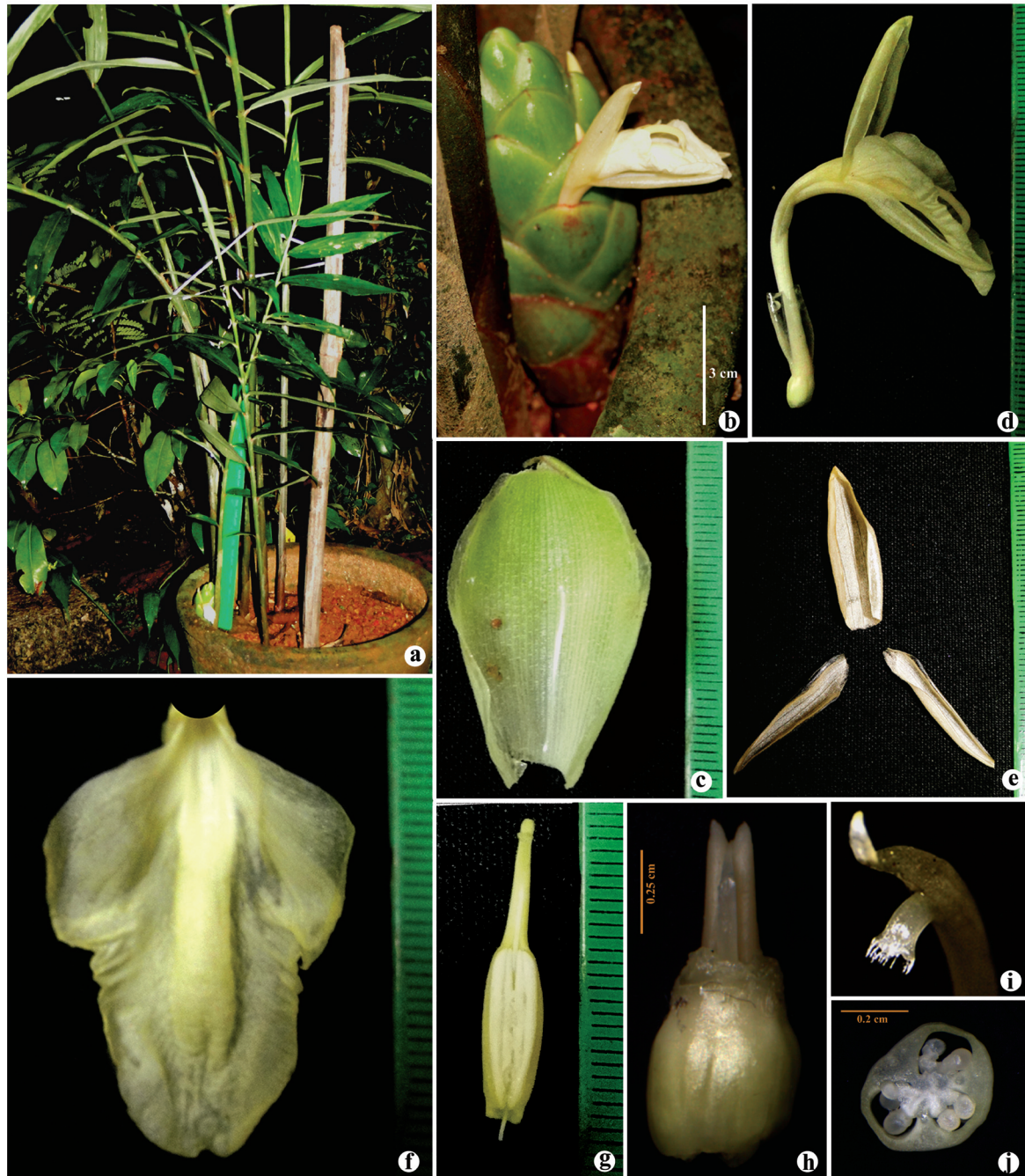


Fig. 1. *Zingiber neotruncatum* T.L. Wu, K. Larsen & Turland: **a.** Habit; **b.** Inflorescence; **c.** Bract; **d.** Single flower; **e.** Corolla lobes; **f.** Labellum; **g.** Stamen; **h.** Ovary with epigynous glands; **i.** Anther crest with cup-like structure holding stigma; **j.** C.S. of ovary.

cylindrical, *c.* 4.3 cm long, pale orange yellow at the base, dark towards the apex, pubescent. Corolla lobe sub-equal, slightly pubescent, cymbiform, light orange yellow towards tip, tip beaked; dorsal lobe *c.* 2.5 × 1.5 cm, lateral lobes *c.* 2.5 × 0.8 cm. Labellum shorter than the corolla tube, *c.* 3.5 × 2.4 cm, cuneate, obovate, orange at the centre, yellow spots at periphery, orange yellow at the tip, tip

truncate, slightly notched, margins folded back. Anther sessile or subsessile, filament *c.* 0.1 cm long. Anther light orange; thecae *c.* 1.2 × 0.4 cm, white, long, cylindrical. Anther crest *c.* 1.3 cm long, hood *c.* 0.1 cm long, cylindrical. Ovary creamy white, *c.* 0.5 × 0.4 cm, barrel-shaped, trilocular, ovules many, arranged in two rows, on axile placentation. Style long, filiform; stigma creamy white, ciliate.

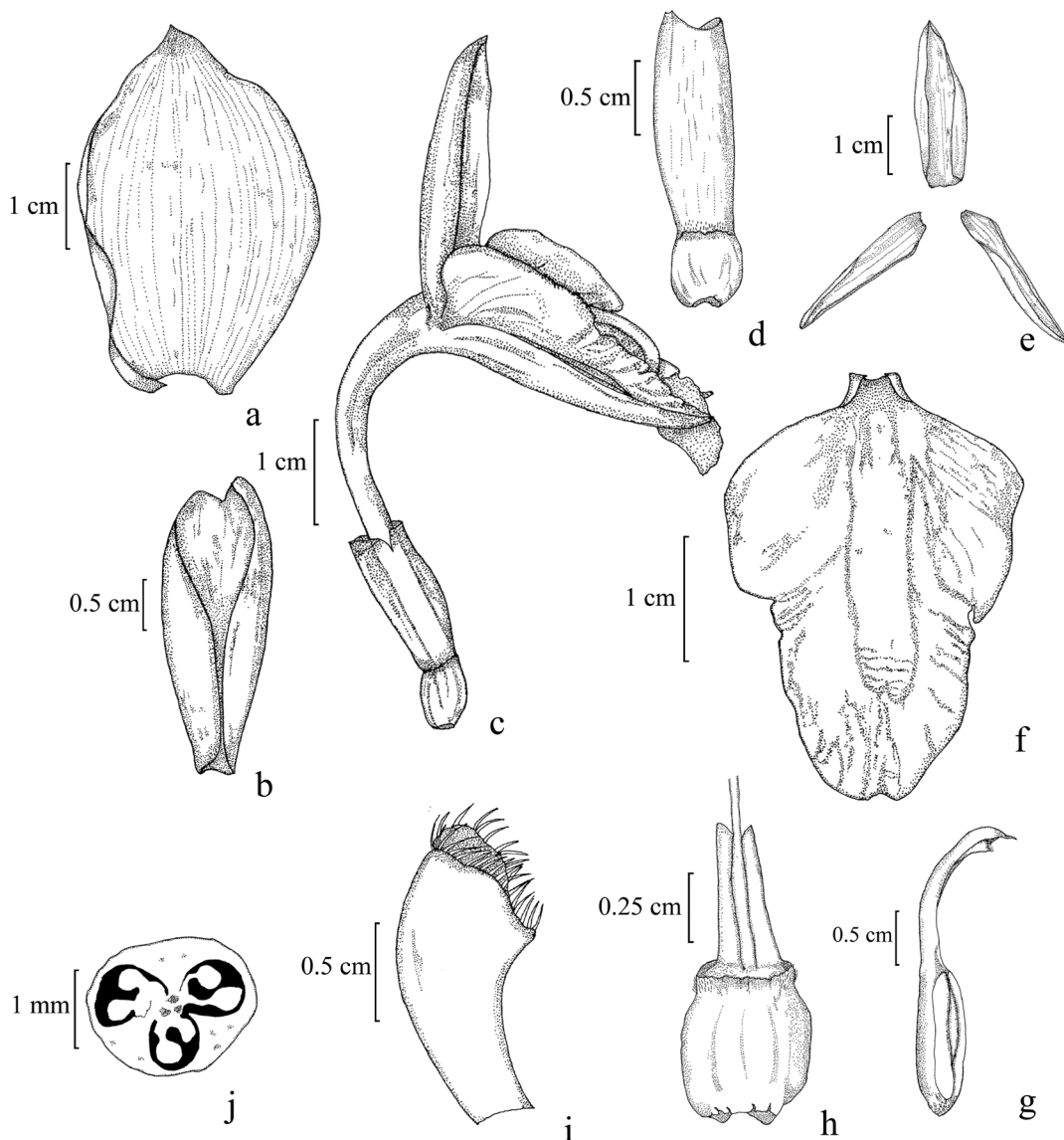


Fig. 2. *Zingiber neotruncatum* T.L. Wu, K. Larsen & Turland: **a.** Bract; **b.** Bracteole; **c.** Single flower; **d.** Ovary with calyx; **e.** Corolla lobes; **f.** Labellum; **g.** Stamen; **h.** Ovary with epigynous glands; **i.** Stigma; **j.** C.S. of ovary.

Epigynous glands 2, c. 0.5 cm long, creamy white. Fruit not seen.

Distribution: *Z. neotruncatum* is distributed in South China, Thailand, India and Vietnam. In India, it grows in Arunachal Pradesh.

Specimens examined: INDIA, **Arunachal Pradesh**, way to Bomdila, Drupong, 07.08.2003, M. Sabu & A.K. Pradeep 92535 (CALI). **Kerala**, Calicut, Olavanna (Transplanted from Arunachal Pradesh), 30.07.2012, M. Sabu 105832 (CALI).

Habitat: It prefers to grow in forest margins above

1000 feet along the foothills of Himalayas.

IUCN Status: Least Concern (Skornickova *et al.*, 2012).

Notes: *Z. neotruncatum* shows some similarities with the Thailand species *Zingiber phumiangense* A. Chaveerach & P. Mookamul in having green bracts with translucent margins, basifixed anthers and glabrous ovary but differs from it in having narrowly lanceolate leaves; calyx tube hyaline with truncate tip; inconspicuous lateral corolla lobes; anther sessile or subsessile exceeding the labellum.

The rhizome is widely used in Arunachal Pradesh for flavoring tea and in traditional medicine.

Acknowledgements

Express our sincere thanks to Dr. John Mood for the identification of the species. Funding support received from the DST Project, 'Taxonomic Revision on Indian Marantaceae and Musaceae' (SR/SO/PS-115/2009 dated 19.08.2010) for the study was also acknowledged.

Literature Cited

- Sabu, M. 2003.** Revision of the genus *Zingiber* in South India. *Folia Malaysiana* **4(1)**: 25-52.
- Sabu, M. 2006.** *Zingiberaceae and Costaceae of South India*. Indian Association for Angiosperm Taxonomy, Calicut University, India.
- Skornickova Leong, J., Tran, H.D., Newman, M., Lamxay, V. & S. Bouamanivong 2012.** *Zingiber neotruncatum*. In: IUCN 2012. IUCN Red List of Threatened Species. Version 2012. 2.
- Theilade, I. & J. Mood 1999.** Six new species of *Zingiber* (Zingiberaceae) from Borneo. *Nordic J. Bot.* **19(4)**: 513-524.
- Theilade, I. 1999.** A synopsis of the genus *Zingiber* (Zingiberaceae) in Thailand. *Nordic J. Bot.* **19(4)**: 389-410.
- Wu, T.L., Larsen K. & N.J. Turland 2000.** Four New Names in Chinese and Vietnamese Zingiberaceae. *Novon* **10(1)**: 90-91.
- Wu, T.L. & K. Larsen 2000.** Zingiberaceae. In: Wu Z. & P. H. Raven (Eds.). *Flora of China*. Vol. **24**. Missouri Botanical Garden Press, St. Louis. pp. 322-377.

Received: 08.02.2013

Revised and Accepted: 29.05.2013



RHEEDEA

Journal of the Indian Association for Angiosperm Taxonomy



विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

Published by Indian Association for Angiosperm Taxonomy

This volume of Rheedia is published with partial financial assistance from
Department of Science and Technology, Government of India, New Delhi