Phytotaxa 172 (2): 129–132
www.mapress.com/phytotaxa/

Correspondence

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

http://dx.doi.org/10.11646/phytotaxa.172.2.9

On the occurrence of a new variety of *Amomum villosum* (Family Zingiberaceae) in Central Hills of Sri Lanka

PIYAL KARUNARATHNE[123*], DEEPTHI YAKANDAWALA[2] & PREMINDA SAMARAWEERA[3]

1. Postgraduate Institute of Science, University of Peradeniya, Sri Lanka.
2. Department of Botany, Faculty of Science, University of Peradeniya, Sri Lanka.
3. Department of Molecular Biology and Biotechnology, Faculty of Science, University of Peradeniya, Sri Lanka.
** piyalkarumail@yahoo.com, T.P: +94773645453, Fax.:+94-81-238 8018*

Abstract

During a study to re-assess the genus *Amomum* Roxb. in Sri Lanka, we encountered a new variety of *Amomum* from Seven Virgin Hills of Peak Wilderness Sanctuary, Sri Lanka. This new specimen shows similar morphological characters to *Amomum villosum* var. *villosum* and var. *xanthioides* but it exhibits significant differences in some important characters such as lamina shape, ligule hairs, bract and bracteole hairs, non-tubular bracteoles and labellum color patterns which warrant the recognition of a new variety under *A. villosum*. All the important features of this new taxon (*Amomum villosum* var. *zeylanicus*) including morphology, habitat, geographical separation, ecology, and IUCN status assessment are described and illustrated for the first time.

Key words: Monocots, New taxon, Sri Lanka, Taxonomy

Background

Members of the genus *Amomum* Roxb. are generally evergreen herbs that inhabit the understory of most tropical forests, especially in light gaps and along forest margins (Sakai & Nagamasu 1998). It is the second largest genus of the ginger family (Zingiberaceae) with over 150 species occurring from the Himalayas through Southeast Asia, Malaysia, Queensland, Northern Australia and extending into the central Pacific (Kress 1990, Smith 1985, Wu & Larsen 2000). As are most genera of Zingiberaceae, *Amomum* is also abundantly distributed in South and Southeast Asia (Kress 1990). Four species of *Amomum* were first recognized by Linnaeus (1753: 560) although they have now been transferred into several other genera. The first description of the genus was given by Roxburgh in 1820 (Burtt & Smith 1972). Since then, approximately 150-180 species have been described (Kaewsri *et al*. 2007) including more than 24 species from the Indian subcontinent alone (Sabu 2006, Sabu *et al*. 2009).

According to Trimen (1885), the first plant collection of *Amomum* from Sri Lanka, vaguely dates back to late 1700. However the first thorough collection of the genus from the country was done by Thwaites in 1860's where he enumerated six species of *Amomum* from Sri Lanka (formerly Ceylon) and it was the biggest collection of Zingiberaceae at that time (Trimen 1885). Until the last revision on the family by Burtt & Smith (1983) several other taxonomists such as G. Bentham (Burtt & Smith 1983), Trimen (1885), Baker (1894), Schuman (1904), and Alston (1931) have worked on the genus in Sri Lanka describing more species. However, the most recent comprehensive two studies on Zingiberaceae by Burtt and Smith in 1972 and 1983 based on the descriptions complied by studying their collections and few herbarium collections of Thwaites, resulted in recognizing only 10 species under the genus *Amomum* in the country. Interestingly, there have been no studies on this important genus for a long time and only a few new specimens have been collected since Thwaites' time.

During a recent study to re-assess the genus *Amomum* with new collection of plant specimens from Sri Lanka, we encountered a specimen which did not match any species descriptions of Zingiberaceae. This specimen was collected from the Seven Virgin Hills of Peak Wilderness Reserve in Sri Lanka. After comparing it with all possible species of *Amomum* occurring in the region and the world, it was confirmed to be a new taxon. Although the specimen shows close morphological similarities to a few *Amomum* species such as *Amomum jainii* Tripathi and Prakash (1999: 609),

Accepted by Timothy Evans: 22 Mar. 2014; published: 13 Jun. 2014

Acknowledgements

This research project was supported by the National Science Foundation Sri Lanka (Grant SIDA/2007/BT/02). The support and the services provided by the Forest Department of Sri Lanka, Department of Wildlife Conservation Sri Lanka and the National Herbarium of Sri Lanka is appreciated..

References

Alston, A.H.G., Trimen, H. & Hooker, J. (1931) Zingiberaceae. *In:* Alston, A. H. G. (ed.) *A Handbook to the flora of Ceylon* London: Dulau & Co. pp. 238–261.

Baker, J.G. (1894) Scitamineae. *In* Hooker, J. D. (ed.). *Flora of British India*. Reeve & Co, London. pp. 198–264.

Burtt, B.L. & Smith, R.M. (1972) Key species in the taxonomic history of Zingiberaceae. *Note RBG. Edinburgh,* 31**:** 177–227.

Burtt, B.L. & Smith, R.M.(1983) Zingiberaceae. *In:* Dassanayake, M. D. & Fossberg (eds.) *Revised Handbook to the Flora of Ceylon.* Colombo: Amerind Publication Co. Pvt. Ltd. pp. 488–532.

Kaewsri, W., Paisooksantivatana, Y., Veesommai, U., Eiadthong, W. & Vajrodaya, S. (2007) Phylogenetic Analysis of Thai Amomum (Alpinioideae: Zingiberaceae) Using AFLP Markers. *Kasetsart Journal (Nat. Sci.)* 41: 213–226.

Kress, W.J. (1990) The phylogeny and classification of the Zingiberales. *Annals of the Missouri Botanical Garden,* 77**:** 698–721. http://dx.doi.org/10.2307/2399669

Lamxay, V. & Newman, M. (2012) A revision of Amomum (Zingiberaceae) in Cambodia, Laos and Vietnam. *Edinburgh Journal of Botany,* 69**:** 99–206. http://dx.doi.org/10.1017/s0960428611000436

Linnaeus, C. (1753) *Species Plantarum-A facsimile of the first edition,* London, Bernard Quaritch Ltd. pp. 28.

Loureiro, J.O.D. (1790) *Flora Cochinchinensis* Ulyssipone:, Typis, et expensis Academicis. pp. 4.

Sabu, M. (2006) *Zingiberaceae and Costaceae of south India,* Kerala, India. Indian Association for Angiosperm Taxonomy, Calicut University. pp. 282.

Sabu, M. Thomas, P. Sanoj, E. Prasanth, V. (2009) On the identity and occurrence of Amomum fulviceps (Zingiberaceae) in India. *Rheedea* 19, 13–17.

Schumann, K. (1904) Zingiberaceae. *In* Engler, A. (ed) *Das Pflanzenreich*. Wilhelm Engelmann, Leipzig. pp. 1–458.

Sakai, S. & Nagamasu, H. (1998) Systematic studies of Bornean Zingiberaceae (I). Amomum in Lambir Hills, Sarawak. *Edinburgh Journal of Botany* 55: 45–64 http://dx.doi.org/10.1017/s0960428600004352

Smith, R.M. (1985) A review of Bornean Zingiberaceae: 1(Alpineae). *Notes RBG Edinburgh,* 42**:** 295–314.

Trimen, H. (1885) *Sys. Cat. Of Flowering Plants and Ferns Indigenous to or Growing Wild in Ceylon,* Colombo, G. J. A. Skeen. pp. 238–261. http://dx.doi.org/10.5962/bhl.title.54971

Tripathi, S. & Prakash, V. (1999) *Amomum jainii* sp. *nov.* (Zingiberaceae) from N.E. India. *Nordic Journal of Botany,* 19: 609–611. http://dx.doi.org/10.1111/j.1756-1051.1999.tb01148.x

Wu, T.-L. & Larsen, K. (2000) Zingiberaceae. *In:* Wu, Z.-Y. & Raven, P. H. (eds.) *Flora of China.* Beijing: Sci. Press, Beijing. pp. 322–377.

Wu, T.L. & Chen, S.J. (1978) Materials for Chinese Zingiberaceae. *Acta Phytotaxonomica Sinica,* 16: 38.