

Amomum tomrey Gagnep. (Zingiberaceae), a new record for Thailand

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ABSTRACT. *Amomum tomrey* Gagnep. is newly recorded for Thailand. It is described and illustrated.

KEY WORDS: *Amomum*, Zingiberaceae, Thailand.

INTRODUCTION

Amomum Roxb. is a genus of 150–176 species of terrestrial herbs and a few epiphytes, occurring from Sri Lanka and India eastwards to New Guinea and Australia (Lamxay & Newman, 2012). The last complete revision of this genus throughout its range is over a hundred years old (Schumann, 1904). The most recent regional revision is for Cambodia, Laos and Vietnam by Lamxay & Newman (2012). Thirty-five species and two varieties were recognized, of which seven species were newly described. In Thailand, 14 *Amomum* species were listed by Larsen (1996) in the preliminary checklist of the family Zingiberaceae. Later, Siriruga (2001) estimated that there were about 15–20 *Amomum* species in Thailand and Larsen & Larsen (2006), in *Gingers of Thailand*, listed 16 species. In addition, *Amomum micranthum* Ridl. was recently reported from Khlong Khrua Wai Wildlife Sanctuaries and *A. inthanonense* Chaveer. & Tanee has been reduced to *A. coriandriodorum* S.Q.Tong & Y.M.Xia (Kaewsri et al., 2009). Kaewsri (2006), in an unpublished PhD thesis, reported 31 species of *Amomum* for Thailand, of which 13 were previously recognised species and the rest were proposed as new species. During a visit to the Royal Botanic Garden Edinburgh to continue taxonomic work on *Amomum* it was discovered that a specimen collected in Nakhon Nayok province, central Thailand, matched the type specimen of *Amomum tomrey* Gagnep. from the Paris herbarium. This species is newly recorded for Thailand. Most characters of this plant match

place the Thai material in *Amomum tomrey* var. *tomrey* except that its leaves are not hairy along the margin.

DESCRIPTION

Amomum tomrey Gagnep., Bull. Soc. Bot. France 53: 145. 1906; Gagnep. Fl. Indo-Chine 6: 113. 1908. Type: Cambodia, Kampong Spoe, Samrong Tong, 12 Apr. 1870, *J.B.L. Pierre 5847* (lectotype **P** [barcode P00599247], designated by Lamxay & Newman (2012); isolectotype **P** [barcodes P00599248 & P00599249]). Fig. 1A–F.

Terrestrial herb, 1.8–2.3 m tall; rhizome c. 0.5–1.5 cm diameter; stilt roots absent; *Leafy shoot* slender, growing in clumps, pale green to purple near base. *Leaves* 4–26; sheath green, striate, glabrous; ligule subleathery, glabrous, apex 2-lobed, round, purple, 5–8 mm long; petiole 8–10 mm long, glabrous; lamina oblong-lanceolate to lanceolate, 19–45 by 6–10 cm, glabrous, base attenuate or rounded, apex acuminate. *Inflorescence* subglobose, c. 2.5–3.0 cm diam.; peduncle 6–13 cm long; peduncular bract oblong, c. 4.0 by 2.7 cm, sparsely pubescent, leathery, apex mucronate; bract oblong or obovate-oblong, c. 1.8 by 1.0 cm, outer surface pubescent at base, purplish green, apex obtuse, apiculate; bracteole tubular, c. 9 mm long, apex unequally bifid, sparsely pubescent. *Calyx* c. 1.1 cm long excluding ovary, apex trifid and shallowly split on one side, base white pubescent. *Corolla* creamy white, tube sparsely hairy, 1.4 cm long excluding ovary, dorsal lobe hooded, ovate, c. 1.2 by

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0.8 cm, apex blunt hooded, lateral lobe narrower. *Staminodes* subulate, white, c. 1.0 mm long. *Labellum* orbiculate, hooded, c. 1.2 cm diam., base auriculate, apex bifid and attenuate, margin revolute toward apex, white with pale yellow mid-band, with pinkish lateral stripes from base radiating to margin, base sparsely white pubescent. *Stamen* creamy white; filament 1–2 mm long, sparsely white pubescent; anther 8.0 by 2.5–3.0 mm, dehiscent lengthwise; anther crest 3-lobed, rounded, 4–5 by 3 mm, glabrous. *Ovary* cylindrical, c. 2 by 2 mm, white pubescent; stigma cup-shaped, the aperture edge hairy, styloides blunt, c. 3 mm long. *Fruit* globose to oblong, smooth with 3 longitudinal grooves, glabrescent, c. 2 cm diam., pinkish brown, fruit sessile, to 7 mm long, apex with persistent calyx; seed angular, 6–7 by 4–5 mm, brown, enclosed by white aril.

Thailand.— CENTRAL: Nakhon Nayok [Muang District, Khao Phra, Hub-luek, the jungle route behind Ban Kluai Kluai Resort, 14°16' 58.1"N, 101°12' 45.17"E, 7 June 2003, *Kaewsri* 29

(BK); *ibid*, in Ban Kluai Kluai Resort, 10 Feb. 2011, *Kaewsri* 302 (BK)].

Distribution.— Laos, Cambodia, Vietnam.

Ecology.— Dry evergreen forest, open disturbed places, limestone bedrock, c. 100 m. Flowering and fruiting during March–July.

Conservation.— In Thailand *Amomum tomrey* has been only found in Khao Phra sub-district, Muang District, Nakhon Nayok Province. According to the FAO data (Banerjee, 1997), Thailand has had the most rapid deforestation in the last 40 years. Its forests in 1961 occupied about 27 million hectares and by 1989 was down to 14.3 million which is only about 28% of the country (Banerjee, 1997). The habitat for *Amomum tomrey* is continually being reduced but currently the species remains fairly widespread. IUCN red list category NT (IUCN, 2001).

Note.— *Amomum tomrey* is relatively similar to *A. koenigii* J.F.Gmel. The main character differences are shown in Table 1.

Table 1. The character differences between *A. tomrey* and *A. koenigii*

Character	<i>A. tomrey</i>	<i>A. koenigii</i>
Ligule length	5–8 mm	< 5 mm
Labellum shape	orbiculate	rhomboid
Flowering habit	continues to flower during fruit maturation	flowers rarely found when fruit reaches maturity
Fruit	glabrescent	glabrous

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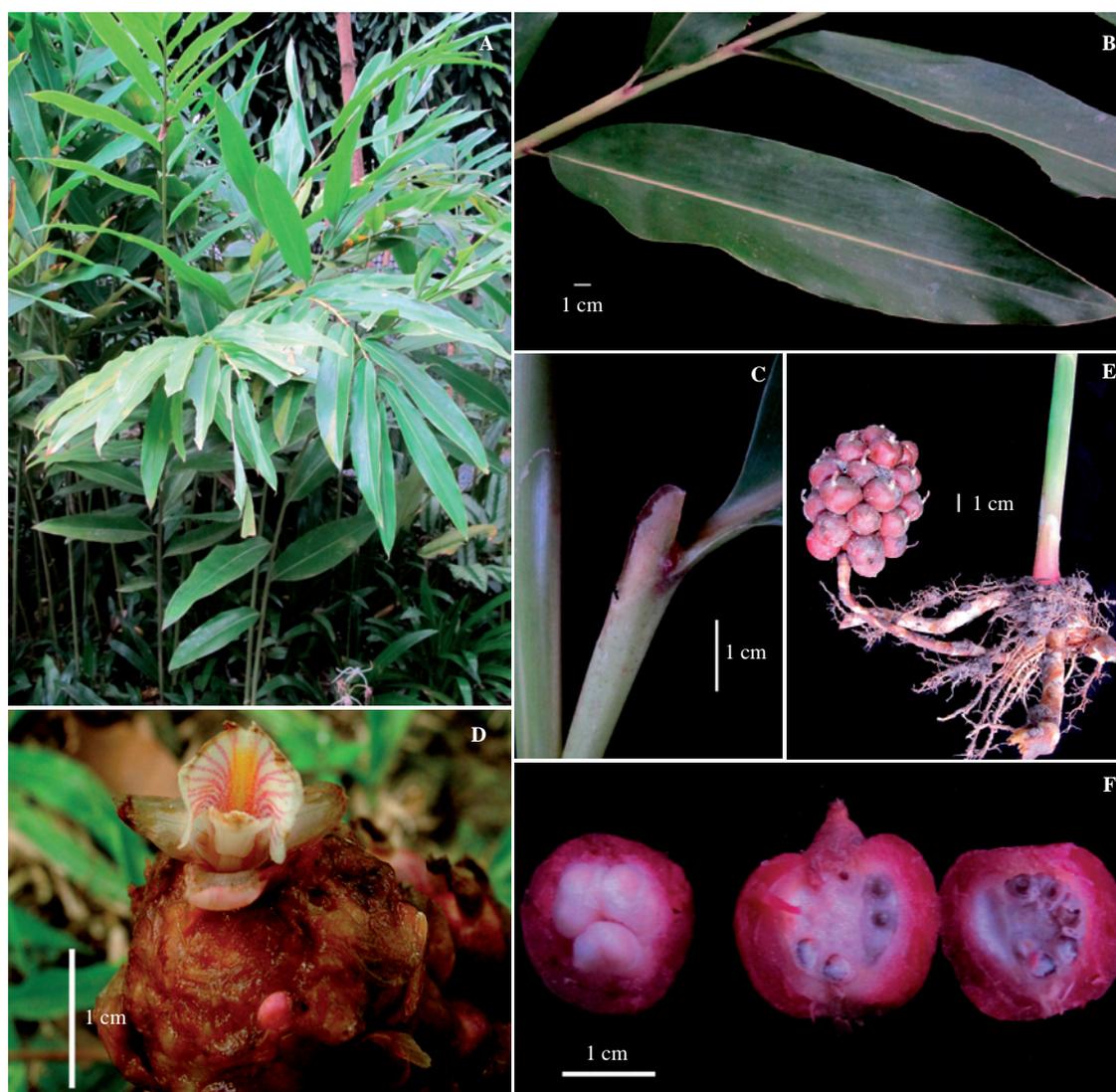


Figure 1. A–F. *Amomum tomrey* Gagnep.: A. leafy shoot; B. leaves; C. ligule; D. flower E. inflorescence; F. fruit (sections). Photographed by Wittaya Kaewsri (all from *Kaewsri 302* except D from *Kaewsri 29*).