A new synonym for *Amomum molle* Ridl. (Zingiberaceae)

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Amomum is the second largest genus after *Alpinia* Roxb. in the ginger family with about 150–180 species widely distributed in Southeast Asia (Xia *et al*., 2004). The most recent revision of the genus throughout its range is over a hundred years old (Schumann, 1904) and there has been no revision of the genus in Thailand.

During our continuous work on this genus for the Flora of Thailand, we examined specimens from neighbouring countries. A critical review of *A. rivale* collected and described by Ridley (1925) from Peninsular Malaysia revealed that it is conspecific with other species of *Amomum* described from Thailand.

Ridley (1925) described *Amomum rivale* from Pahang, Peninsular Malaysia. We studied both its protologue and type specimen (*Burkill, I. H. & Haniff, M. SFN*. 16945a, K and SING). In comparison with the description of *A. molle* and several specimens of the latter from Thailand determined by various authorities, no differences have been noted. We believe that the two taxa should be synonymized.

According to the rules of the ICBN, the name *A. rivale* must become a synonym of *A. molle*. In this paper, we propose the following description with nomenclatural change and designation of a lectotype of *Amomum molle* Ridl.

Amomum molle Ridl.
(Figs. 1 and 2)

Amomum molle Ridl.,J. Fed. Malay. States Mus. 10(2): 120.1922. Lectotype: Thailand, Surat Thani, Tasan, 5 November 1919, *C. B. Kloss* 6955 (K!, **selected here**, Fig. 1A). Syntype: *C. B. Kloss* 6988 (K!).

Amomum rivale Ridl., Fl. Malay Penins. 5: 338.1925; Holttum, Gard. Bull. Singapore 13: 205. 1950. **syn. nov.** Type: Peninsular Malaysia, Pahang, gorge of the Tras near Raub, 500 feet, 12 November 1924, *Burkill, I.H. &Haniff, M. SFN*. 16945a (holotype, K!; isotype, SING!, Fig. 1B).

Description.—*Rhizome* elongate. *Leafy shoot* slender, c. 1.0–1.2 m tall (Fig. 2A). *Leaves* 6–16; sheath longitudinally striate; ligule 2-lobed, papery, outer surface and margin hairy, 3–5 mm long (Fig. 2B); petiole sessile to 2.0 cm long, villous; lamina narrowly oblong to elliptic-oblong, 25.0–41.0 by 2.5–7.5 cm, lower surface pale green, densely pubescent, base

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cuneate or obtuse, apex acuminate, tip caudate, 1.0–4.0 cm (Fig. 2C). *Inflorescence* conical or cylindric, 5.0–6.0 by 2.0–3.5 cm; peduncle 5.0–8.0 cm long; peduncular bract oblong, 1.3–4.0 by 1.2–1.5 cm, brown, papery, pubescent, apex acuminate (Fig. 2D). *Bract* deltoid to lanceolate, c. 3.0–5.0 by 1.0–1.5 cm, papery, outer surface and margin pubescent, apex acuminate (Fig. 2E1). *Bracteole* tubular, c. 1.5 cm long, apex unequally 3-fid, shallowly split on 1 side, outer surface hairy (Fig. 2E2). *Calyx* c. 1.7–2.0 cm long including ovary, apex unequally 3-fid and shallowly split on one side, pinkish white, outer surface pubescent (Fig. 2E3). *Corolla* creamy white, outer surface puberulous, tube c. 2.5 cm long including ovary, dorsal lobe hooded, oblong, c. 0.7 by 1.5 cm, abruptly narrowed at apex; lateral lobe narrower, apex acuminate (Fig. 2E4). *Lateral staminode*s minute subulate, surface hairy. *Labellum* spathulate or obovate, hooded, slightly 3-lobed, c. 2.0–2.9 by 1.0–1.5 cm, base attenuate, middle lobe erect, apex 2-fid, lateral lobe broadly rounded and margin revolute, yellow with red stripes from base to the middle, base pubescent (Fig. 2E5). *Stamen* c. 1.3 cm long, pale yellow*;* filament c. 5.0 mm long, glabrous; anther c. 5 by 3 mm, short dehiscing at the middle; anther crest 3-lobed, c. 3 by 4 mm, pale yellow, large central lobe, round and emarginate, reflex on to back of anther, smaller lateral lobes triangular, apex acute, erect (Fig. 2E6). *Ovary* cylindric, 2–3 mm long, sericeous; stigma cup-shaped, the aperture ciliate, stylodes blunt, c. 3 mm long. *Fruit* 1–4 per infructescence, globose, covered with short spines, 1.6–1.8 cm in diameter; spines red, c. 1 mm long; fruit stalk sessile (Fig. 2F); seed angular, c. 7 by 4 mm.

Distribution. (Fig. 3)—Southwestern Thailand: Kanchanaburi (Sai Yok, Thong Pha Phum). Peninsular Thailand: Surat Thani, Nakhon Si Thammarat (Tah Sa La), Phatthalung (Tamote), Trang, Songkhla (Hat Yai, Rataphum), Yala (Bannangsta). Peninsular Malaysia: Pahang.

Habitat.—Tropical rain or dry evergreen forest c. 400–1,200 m a. s. l.

Phenology.—Flowering and fruiting during April–July.

Conservation status.—*A. molle* is common in southwestern to peninsular Thailand. Its habitat is continually being reduced but currently the species remains fairly widespread (IUCN red list category “Near Threaten” [NT] [IUCN, 2001]).

Note.—*A. molle* is characterized by the yellow labellum and pubescence on lower leaf surfaces.

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Specimens examined.— THAILAND. South-Western**.** Kanchanaburi: SaiYok, 25 April 2003, *Kaewsri*-4 (BK, BKF); Sai Yok, 25 April 200, *Kaewsri*-5 (BK, BKF); Thong Pha Phum: 24 May 2003, *Kaewsri*–23 (BK, BKF). Peninsular. Nakhon Si Thammarat: Tah Sa La, 3 June 1986, *Maxwell* 86–342 (PSU). Phatthalung: 9 August 1986, *Maxwell* 86–550 (PSU). Trang: 20 May 1998, *C. Maknoi* 2 (QSBG). Songkhla: Hat Yai, 4 May 1985, *Maxwell* 85–433 (PSU); Hay Yai, 25 May 1985, *Maxwell* 85–523 (PSU); Hat Yai, 11 August 1984, *Newman* 13 (PSU); Hat Yai, 20 June 1987, *P. Sirirugsa* 1088 (PSU); Rattaphum,16 October 1984, *Newman* 23 (PSU); Rattaphum, 24 April 1987, *P. Sirirugsa*1062 (PSU); Rattaphum, 24 April 1987, *P. Sirirugsa* 1069 (PSU). Yala: Bannangsta, 22 November 1987, *P. Sirirugsa* 1138 (PSU) (Fig. 1). MALAYSIA. Pahang: 12 November 1924, *Burkill* 16945a (SING).

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Figure 1. A, Lectotype of *A. molle*. B, Isotype of *A. rivale.*

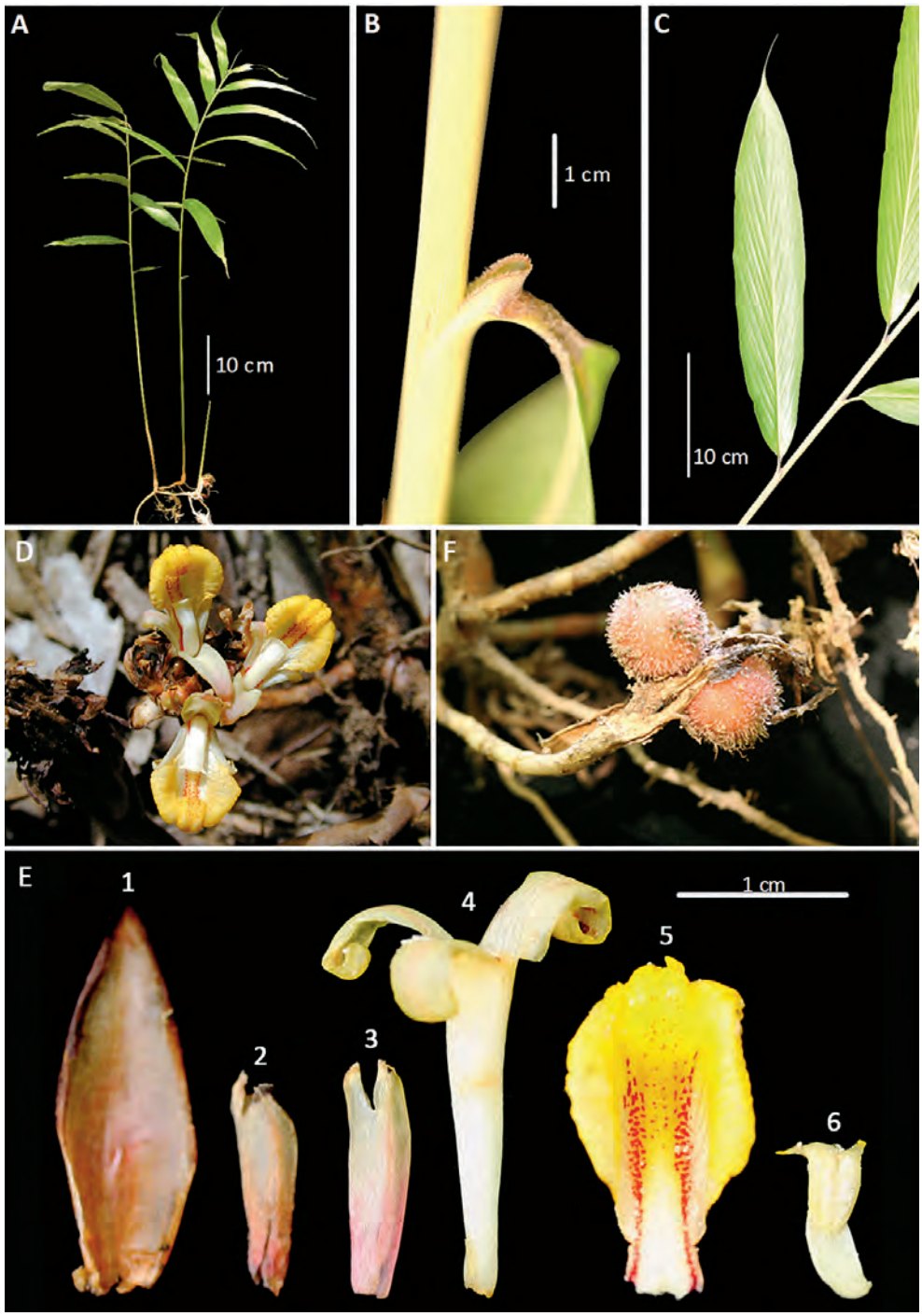

Figure 2. *Amomum molle* Ridl.. A, leafy stem. B and C, leaf. D, inflorescence. E, flowering components (1, bract; 2, bracteole; 3, calyx; 4, corolla; 5, labellum; and 6, stamen). F, infructescence.

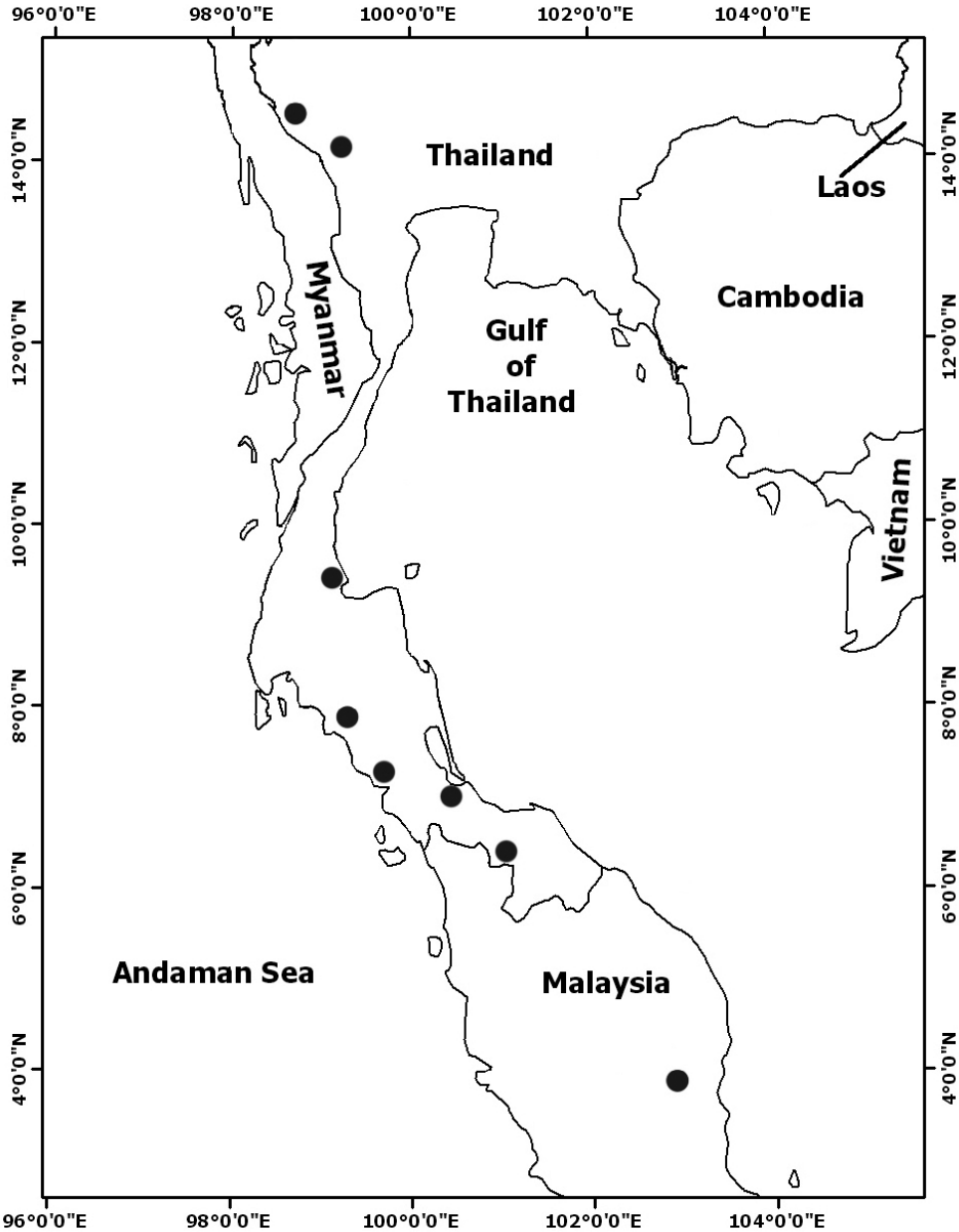

Figure 3. Distribution of *Amomum molle* Ridl. (●).