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Homalomena renda (Araceae), a remarkable new species from the rainforests of Jambi, Sumatra

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Abstract. *Homalomena renda*, a new species from Jambi, Sumatra, Indonesia, is most similar to *H. cristata* in having cristate petioles, leaf blade margins, and primary lateral veins. It is distinguished by its ovate leaf blade; cuneate to truncate base; apiculate apex; revolute margins; and spongy texture. Diagnostic features include a crista along the entire midrib, 8–14 deeply impressed lateral veins, a white lobed ovary, and a markedly shorter peduncle (1.5–4.5 mm). A morphological description, illustration, and comparative notes with *H. cristata* are provided.

Keywords: Araceae, Chamaecladon, Malesia, ornamental, Sumatra.

INTRODUCTION

Homalomena of Sumatra represent a highly promising area for further exploration and taxonomic classification. As of now, a total of 38 species have been documented from the Sumatran region (POWO 2024; Irsyam et al. 2025a; Irsyam et al. 2025b). Recent studies have concentrated on the *Homalomena* species within the 'Chamaecladon Super Group' (Ng et al. 2011). Over the past twelve years, many novel species within this group were described from the island (Boyce and Wong 2012, 2013, 2016a, 2016b; Wong et al. 2020; Irsyam et al. 2025a, 2025b).

In July 2024, our observations led to the identification of a previously unrecorded mesophytic species of *Homalomena* from Jambi Province. By November 2024, it was discovered that this species had been circulating for a period as an ornamental plant on social media, commonly referred to as *Homalomena* "Renda". Upon closer examination, the species was found to exhibit several distinctive morphological traits that set it apart from other *Homalomena* species from Sumatra, notably *H. cristata* Alderw. (Alderwelt 1922). This manuscript provides a formal detailed taxonomic description of this newly recognized novel species.

MATERIALS AND METHODS

The morphological observation of the species was conducted at a private nursery in Bogor between July 2024 and January 2025. Additional specimens corresponding to the new species were examined at the Herbarium Bogoriense (BO). The analysis focused on the morphological characteristics, and detailed documentation of its inflorescences was carried out using a Dinolite digital microscope in National Research and Innovation Agency (BRIN), Cibinong.

TAXONOMIC TREATMENT

Homalomena renda A.S.D.Irsyam & M.R.Hariri, **sp. nov.** (Figure 1).

Type: cultivated in a private nursery from material collected in the wild ex Indonesia, Sumatra, Jambi, Merangin District, Tiang Pumpung (*orig. coll.* 12 July 2024, *AA Setiawan s.n.*), 19 December 2024, *M.R.Hariri 795* (holotype FIPIA, isotype BO).

Diagnosis

Most similar to *H. cristata* (Fig. 2) by cristate petioles, leaf blade margins, and peduncle, but differs in the following characters: sheath ca. 1/5 the petiole length (vs. 1/3–1/2), leaf blade ovate (vs. obovate-lanceolate), leaf base cuneate to subcordate or truncate (vs. rotundate-cuneate), margin revolute (vs. flat), leaf apex apiculate (vs. acuminate), leaf texture spongy (vs. subcoriaceous), crista present along the entire midrib (vs. restricted to basal 1/3), 8–14 primary lateral veins (vs. 3–4), primary lateral veins deeply impressed adaxially (vs. obscure), primary lateral veins cristate (vs. not cristate), intercostal regions conspicuously raised (vs. flat to slightly sunken), peduncle 1.5–4.5 mm long (vs. 1.5–2 cm), ovary white (vs. green).

Description

Mesophytic herbs, ca. 22.5 cm in height, forming leaf rosettes. *Stem* highly condensed, 2.0–5.5 cm long; internodes obscured by overlapping leaf bases. *Leaves* 6–8 per crown; *sheath* fully adnate to petiole, 1.7–4.2 cm long, margin revolute, apex truncate, yellowish-green to greenish-red brown; *petiole* long, 4.0–18.5 cm long, canaliculate, green above, reddish-green below, with up to 10 longitudinal cristae; *leaf blade* asymmetric ovate, 7.2–16.4 × 4.6–10.5 cm, base cuneate or subcordate to truncate, margin crispulate, revolute, apex apiculate, spongiosus, adaxial leaf surface yellowish-green to dark green, abaxial leaf surface green to reddish-green, midrib pale-green, raised abaxially, cristate abaxially; primary lateral veins 8–14 on each side, deeply impressed adaxially, cristate abaxially; intercostal region conspicuously raised. *Inflorescences* erect-spreading, 1–2 together; peduncle 1.5–4.5 mm long, reddish, cristate. *Spathe* oblong with asymmetric apex, without constriction, 17.7–19.2 × 4.5–5.1 mm, reddish dark green to reddish, apex blunt with a mucro to 1.5–2.6 mm long. *Spadix* sessile, 14.5–15.9 mm long, fertile to tip; *pistillate flower zone* cylindric, 3.8–5.4 mm long, shorter than the male zone; pistils few, in 5–6 whorls, lobed, 0.6–0.8 mm in height, 0.5–1.5 mm in diam., white, stylar region white; stigma sessile, button like, 0.2–0.5 mm in diam., white and turning black after anthesis; *staminode* 1 each pistillate flower, irregular in shape, sessile, ca 0.5 mm in height, 0.1–0.4 mm in diam., white; *staminate flower zone* conic, 10.1–10.3 mm long, apex acute; *staminate flowers* densely arranged, 1.2–1.8 mm long, consisting of 2–3 stamens, trapezoid to hexagonal in plan view, creamy white. *Fruits* and seeds not observed.

Etymology

The specific epithet *renda* is derived from the Indonesian language, where it refers to the term *crista*. This name highlights a defining characteristic of the species, emphasizing the distinct ridges or crests present on the plant.

Vernacular name

In Indonesia, this species is commonly marketed and sold under the local name *Homalomena* 'Renda'. This name is widely used among plant enthusiasts, horticulturists, and sellers, particularly in nurseries and plant markets.

Distribution and ecology

This species is endemic to Jambi, Sumatra and only known from the type locality.

Proposed conservation assessment

The species is currently classified as *undetermined* based on the criteria outlined by the IUCN Red List. Given the scarcity of available data, it is appropriate to categorize it as Data Deficient (DD). However, within its type locality, *H. renda* appears to face significant risks of overexploitation. This highlights the need for a comprehensive assessment of its conservation status to ensure proper measures are taken to protect the species.

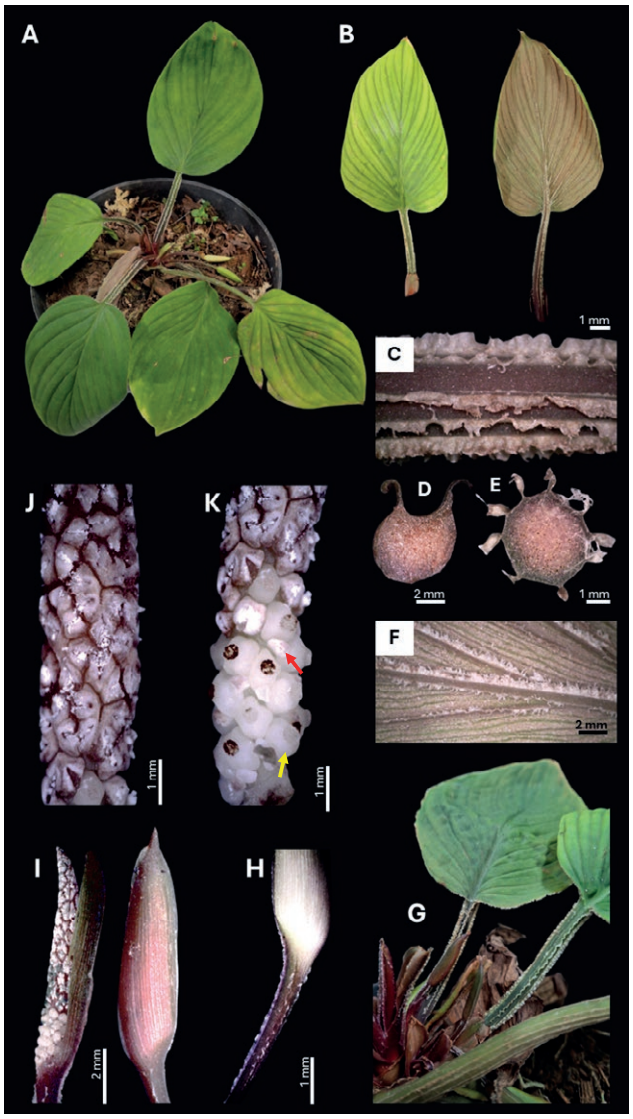

Figure 1. *Homalomena renda*. A. Habit; B. Adaxial and abaxial leaf surfaces; C. Cristate petiole; D. Cross section of petiole with sheath; E. Cross section of petiole showing cristae; F. Abaxial surface leaf showing veins cristae; G. Inflorescence; H. Cristate peduncle; I. Inflorescence with full and half of spathe removed artificially; J. Staminate flowers; K. Pistillate flowers with lobed ovary (yellow arrow) and staminodes (red arrow).

Notes

Homalomena renda is placed within the 'Chamaecladon Super Group' based on its distinctive morphological characters. Key diagnostic features include a non-constricted spathe, the presence of 2–3 stamens per staminate flower, and the occurrence of staminodes within the pistillate zone.

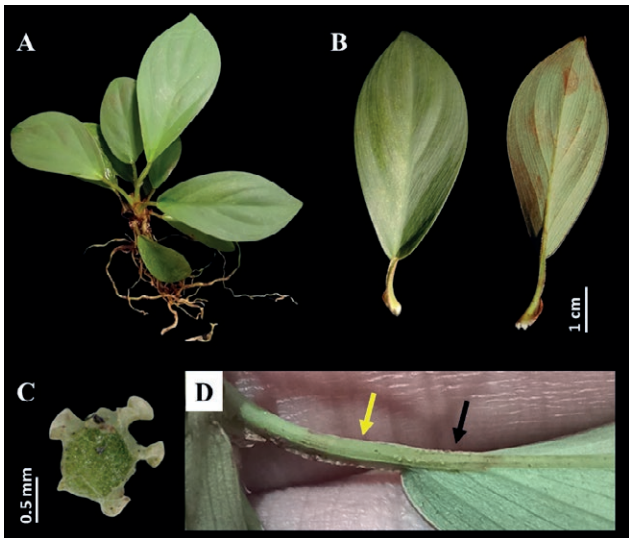

Figure 2. *Homalomena cristata*. A. Habit; B. Adaxial and abaxial leaf surfaces; C. Cristae on petiole; D. Cristae extending from base to mid-petiole (black arrow), fading distally (yellow arrow).

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