

Ginger herb *Meistera fulviceps*: a new distribution record for Tamil Nadu



Meistera fulviceps (Thwaites) Skornick. & M.F. Newman
a—Habit | b—Close-up view of inflorescence | c—SEM image of pollen grain.

The genus *Amomum* Roxb. has been recircumscribed recently by de Boer et al. (2018) in a multi-marker phylogenetic framework with morphological characters which resulted in a more precise identity and nomenclatural stability. They resurrected the genus *Meistera* Giseke and listed 42 species and three varieties segregated from the genus *Amomum* (sensu lato). The genus *Meistera* is characterized by the semilunar anther crest, echinate fruits and fertile bracts supporting a single flower and is mainly distributed in tropical and subtropical Asia and Australia (de Boer et al. 2018). In India

it is represented by 13 species distributed in northeastern India and peninsular India. Thomas et al. (2009) reported the occurrence of *Amomum fulviceps* Thwaites in India from Thiruvananthapuram District of Kerala; which was earlier reported only from Sri Lanka. They provided a detailed description, color photographs with distinguishing characters of *A. fulviceps* from the allied taxa, viz., red colored bracts, pale yellow flowers with 3-clefted calyx tube, trilobed labellum and echinate, red capsules. During the floristic survey of Kanyakumari Wildlife Sanctuary in Tamil Nadu, the authors collected specimens

of *Amomum*. After critical study of the specimens and perusal of literature (Thwaites 1864; Henry et al. 1989; Sabu 2006; Thomas et al. 2009; de Boer et al. 2018), according to the updated nomenclatural concept, the plant is identified as *Meistera fulviceps* (Thwaites) Skornick. & M.F. Newman (= *Amomum fulviceps* Thwaites). The present collection of *Meistera fulviceps* (Zingiberales: Zingiberaceae) forms an addition to the flora of Tamil Nadu. A brief description with details of pollen grains (SEM) and photographs are provided.

Meistera fulviceps (Thwaites) Skornick. & M.F. Newman, Taxon 67: 26. 2018. *Amomum fulviceps* Thwaites, Enum. Pl. Zeyl.: 317. 1864; Baker in Hook.f., Fl. Brit. India 6: 237. 1892; Trimen, Handb. Fl. Ceylon 4: 252. 1898; B.L. Burtt & R.M. Sm. in Dassan., Rev. Handb. Fl. Ceylon 4: 526. 1983; V.P. Thomas, Sanoj, M. Sabu & Prasanth in Rheedea 19: 13–17. 2009.

Medium-sized to large herbs; rhizome fibrous. Leafy shoots distichous, 150–180 cm high. Leaves 10–14 per shoot; lamina lanceolate, 32–40 × 6–7 cm, base acute, apex acuminate, glabrous; petiole 1–2 cm long, grooved above. Ligule 1.5–2 cm long, glabrous, green. Spike arising from the rhizome, compact, many flowered, up to four flowers at a time; peduncle 5–8.5 cm long. Bract ovate, 2–3.5 × 1–1.7 cm, red, appressed-pubescent outside, hair yellowish brown when dry. Bracteole tubular, 1.5–2 × 0.3–0.5 cm, pink, 2-lobed. Flower 3.5–4 cm long, yellowish white. Calyx tubular,

2–2.4 × 0.3–0.5 cm, pale pink, 3-clefted, hairy outside, glabrous inside. Corolla tube 1.5–2 cm long, ca. 2 mm wide at mouth, pale yellow, pinkish towards base; dorsal corolla lobe ovate, 1.3–1.5 × ca. 0.9 cm, pale yellow, pubescent outside, glabrous inside; lateral corolla lobes oblong ca. 1.5 × 0.6 cm, pale yellow, pubescent outside, glabrous inside. Labellum obovate, 3-lobed, pale yellow, glabrous. Lateral staminodes reduced. Stamen 1–1.2 cm long, creamy white; connective produced into a crest; crest semi-lunar, pale yellow; theca oblong, creamy. Epigynous glands 2, oblong, creamy, glabrous. Ovary inferior, obconic ca. 5 × 3.6 mm, densely villous outside, 3-loculed; ovules many on axile placentation;



Herbarium sheet of *Meistera fulviceps* [144682 (MH)].

style linear; stigma subglobose. Capsule 3–6 per spike, globose, 1.5–3 cm, red, densely echinate, pubescent. Seeds many, angular, red, arillate; aril white.

Specimens examined: 144682 (MH), 06.ii.2019, Muthukuzhivayal, Azhagiyapandipuram Range, Kanyakumari Wildlife Sanctuary, Tamil Nadu, 8.729°N & 77.512°E, 1,330m, coll. K.A. Sujana & Rakesh G. Vadhyar.

Flowering and Fruiting: January–April.

Habitat: Rarely distributed in tropical evergreen forests and tropical montane forests at an altitude between 1100–1400 m in moist and shady areas.

Distribution: India and Sri Lanka; in India this species is reported so far from Thiruvananthapuram District of Kerala and Kanniyakumari District of Tamil Nadu.

Pollen morphology: Pollen grains are spherical, 48–57 µm in diameter, exine surface echinate; spine uniformly distributed, apex blunt.

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