



Two new *Zingiber* (Zingiberaceae) species from Northeast India

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With 158 species, *Zingiber* Miller (1754), is one of the largest genera of Zingiberaceae mainly distributed from tropical to warm temperate Asia (WCSP 2015, Triboun *et al.* 2014, Chen *et al.* 2011 and references therein). In India, the genus is represented by 27 species (Rao & Verma 1972, Srivastava & Rao 1994, Jain & Prakash 1995, Kumar *et al.* 2013, Tripathi & Singh 2006, Sabu 2006, Sabu *et al.* 2013, Rajkumar & Leong-Škorničková 2013, Thongam *et al.* 2013, Thongam & Konsam 2014), of which 15 species are recorded from northeastern India, which is a hotspot for Zingiberaceae.

During various floristic explorations to Mizoram and other parts of northeastern India, several samples of *Zingiber* were collected and planted in the Experimental Botanical garden of the Botanical Survey of India, Eastern Regional Centre, Shillong, because flowering is ephemeral and can more easily be studied when plants are cultivated. The study of the vegetative and flowering characters of these specimens revealed two species of *Zingiber* that could not be matched with any known taxa. Because they have radical inflorescences and procumbent peduncles, we are certain that they belong to section *Cryptanthium* Horaninow (1862: 27), but the species could not be determined. Scrutiny of available herbarium material of *Zingiber* at ASSAM and study of literature (Schuman 1904, Valetton 1918, Theilade 1996, Rao & Verma 1972, Srivastava & Rao 1994, Theilade & Mood 1997, 1999, Theilade 1999, Wu & Larsen 2000, Mood & Theilade 2002, Tripathi & Singh 2006, Sabu 2006, Chen *et al.* 2011, Rajkumar & Leong-Škorničková 2013, Kumar *et al.* 2013, Sabu *et al.* 2013, Thongam *et al.* 2013, Thongam & Konsam 2014, Triboun *et al.* 2014, Leong-Škorničková *et al.* 2015, Ye *et al.* 2015, Bai *et al.* 2015) did not result in a match with any known species. Hence we think the samples represent species unknown to science and are thus described here as new.

Zingiber murlenica Ram.Kumar, Sushil K.Singh & S.Sharma, *sp. nov.* (Fig. 1)

Similar to *Zingiber callianthus* Triboun & K.Larsen (in Triboun *et al.* 2014: 59), but differs in having greenish brown rhizomes, short petioles, pinkish-white peduncles, oblong-obovate, pinkish-green, deflexed bracts with acuminate apices, glabrous, creamy-white bracteoles and calices and a labellum with maroon mottling. In *Z. callianthus* rhizomes are purplish inside, petiole long (almost double), peduncle pink-red, bract reddish linear pubescent with obtuse apex, bracteoles and calyx pale pink pubescent, labellum red mottled (fide Triboun *et al.* 2014).

Type:—INDIA. Mizoram: Champhai District, Murlen National Park, 93°15'30.49"E 23°38'42.12"N, 11 August 2014, Ramesh Kumar *et al.* 128821 (holotype: ASSAM).

Terrestrial herb; rhizomes close to the soil surface, small, branched, greyish brown inside, roots many, fleshy, without tubers, odorless. *Leafy shoots* 1.00–1.25 m tall, erect, thick, basal sheaths green, glabrous; *leaves* 12–15, green throughout, at 9–3 cm intervals from down to upwards, petiole c. 1 cm long, whitish green, glabrous, ligule c. 1 × c. 3 cm, bilobed, glabrous, apices round, coriaceous, green, margins hyaline; laminae 25–50 × 10–14 cm, oblong-lanceolate, adaxially dark green, smooth, glabrous, abaxially off-green, pubescent, bases cuneate, apices acuminate. *Inflorescences* radical, 1–2 per plant, 7–10 cm above the ground; peduncle procumbent, 7–10 cm long, pinkish-white; spike ovate or subglobose, 5–7 × 3.0–4.5 cm, with 25–30 floral bracts; bracts 5–8 × 2.5–3.0 cm, oblong-obovate, tip acuminate, deflexed, pinkish-green, glabrous, lower one smaller than upper one. Bracteoles lanceolate, c. 4.0 × c. 0.8 cm, creamy-white, with truncate tip, glabrous. *Flowers* 7–9 cm long; calyx creamy-white, glabrous 2.0–2.5 cm long, 3–4 mm in diameter, tubular, shortly tridentate at apical portion, unilaterally split; corolla tube slender, creamy-white, glabrous, corolla lobes subequal, dorsal lobe 2.5–3.0 × 0.8–1.0 cm, lanceolate, 8-nerved, apex acuminate, lateral