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ENSETE GLAUCUM (ROXB.) E. E. CHEESM.—A RELICT SPECIES IN THE EASTERN GHATS

The genus *Ensete* Horan. contains six species in Africa and Asia of which only two are found in India viz. *Ensete superbum* (Roxb.) E. E. Cheesm. and *Ensete glaucum* (Roxb.) E. E. Cheesm. The former is found wild in Western ghats and sometimes in cultivation in gardens. *Ensete glaucum* (Roxb.) Cheesm. is reported to be "thinly distributed from north-eastern India, Burma and Thailand, through southern China to the Philippines, New Guinea and Java." (Simmonds, 1962).

The authors collected *Ensete glaucum* (Roxb.) E. E. Cheesm. from the Eastern ghats, in Andhra Pradesh. These plants are seen in isolated localities on well exposed rocky slopes of mountains with some undergrowth. Since the species of *Ensete* Horan. are regarded as relicts (Simmonds, 1962), the collection of *Ensete glaucum* (Roxb.) E. E. Cheesm. from Eastern ghats of Peninsular India is highly interesting.

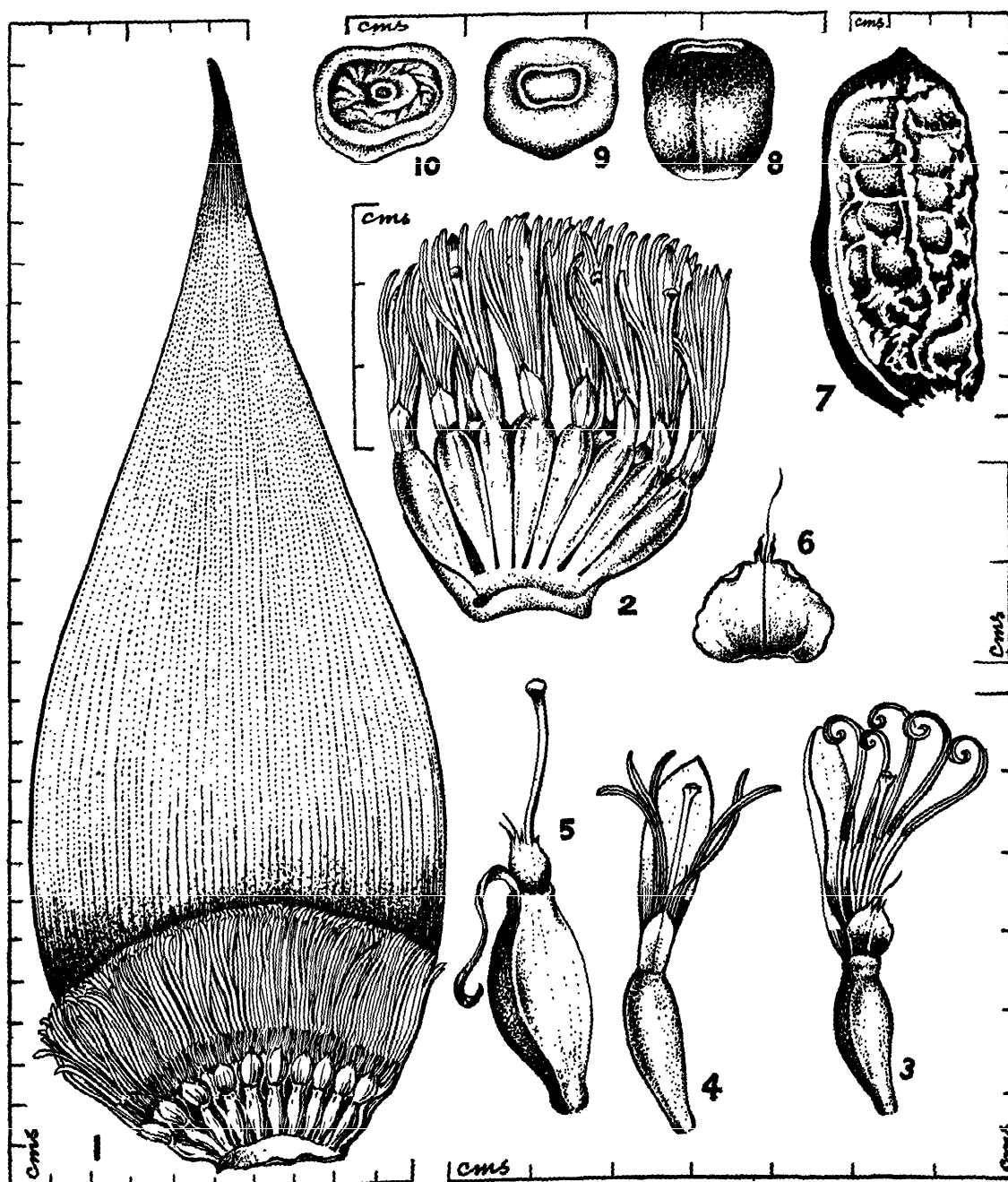
Since the genus is poorly known (Simmonds, 1962) a detailed description of the species together with its synonymy is given here from our observations in the field and from preserved specimens.

Ensete glaucum (Roxb.) E. E. Cheesm. Kew Bull. 1947: 101. 1947. *E. calospermum* (F. v. Muell.) E. E. Cheesm. l.c. 102. *E. wilsoni* (Tutcher) E. E. Cheesm. l.c. 103. *Musa glauca* Roxb. (Hort. Beng. 19. 1814, nomen) Corom. Pl. t. 300. 1820; Fl. Ind.

2: 490. 1824; Baker in Hook. f. Fl. Brit. Ind. 6: 262. 1892; Schumann in Pflanzenr. IV-45: 21. 1900; Backer, Fl. Java 3: 36. 1968. *M. calosperma* F. v. Muell. Proc. Linn. Soc. N. S. Wales 10: 355. 1885 et in Gard. Chron. ser. 3, 20: 360. 1869. *M. wilsoni* Tutcher, Gard. Chron. 2: 450. 1902.

A monocarpic unbranched nonstoloniferous plant, 3-3.5 m high; *pseudostem* white-pruinose, swollen at the base, 20-22 cm diam. at breast height, juice watery turning quickly, pale rusty brown on exposure. Sheaths, petioles and bracts waxy. Juvenile leaf green, petiole green. Adult leaves 1-1.5 × 0.35-0.4 m ascending, oblong-lanceolate, acute, base unequal, green above, glaucous beneath, midrib yellowish green; petiole 30-35 cm green, light pink near the stem on the inner surface, deep and narrow channeled in young leaves, shallow and broad channeled in adult leaves, black and entire at margins. *Inflorescence* pendulous, cylindrical when fresh; peduncle glabrous, ca 35 cm long; bracts 22-24 × 16-18 cm, green, glaucous, broadly ovate, acute, rather thin, several opening at a time, never deflexed, persistent, integral with flowers and axis; basal flowers fertile, hermaphrodite, gradually transforming to staminate flowers towards the apex through hermaphrodite and neuter flowers in the middle. Male bud ovate to lanceolate, acute, component bracts compact. *Flowers* white or

translucent. Stamens *ca* 4 cm long, anthers *ca* 3 cm long, white; stigma in young flowers irregularly \pm 6 partite but capitate in fruit- ing stages. Outer perianth *ca* 4 \times 1 cm, striped, acute to obtuse, entire. Inner perianth much smaller than the outer perianth, mem-



Ensete glaucum (Roxb.) E. E. Cheesm.

Figs. 1-10: 1. Bract and flowers (taken from the middle of the inflorescence). 2. Flowers from 1—enlarged. 3 & 4. $\frac{8}{4}$ flowers with outer and inner perianths and very young fruits. 5. Immature fruit. 6. Inner perianth. 7. A section of a mature fruit (seeds removed). 8. Seed. 9. Hilar pit of seed. 10. T. S. of seed.

branous, transparent, broader than long, uneven at margin, 3 lobed; central lobe *ca* 6 mm long, narrow, long apiculate, lateral lobes suborbicular, enfolding the filaments till the flower fully opens. *Fruit bunch* compact, 12-14 hands per bunch and up to 14 fingers in two rows per hand. *Fruits* geotropic, green, glaucous, generally oblong 5-9 cm long, pulp scanty; seeds smooth, black on drying, 25-30 per fruit, *ca* 1 cm across with a conspicuous deep hilar pit with the hilum at the bottom of the pit and an umbo with apical pit opposite the hilum.

In *Ensete superbum* (Roxb.) Cheesm., the pseudo-stem is larger in diameter, not glaucous, closely packed with broad dark chocolate-brown persistent sheath bases which are so strong to support a person who climbs to reach the spike. Midrib of leaf red. Bracts are dull brown, green bordered at the tip, obtuse, deflexed and dry up.

In *Ensete glaucum* (Roxb.) Cheesm., the pseudo-stem is comparatively smaller in diameter, presents a broad ribbed appearance gradually becoming terete towards the apex; leaf sheaths are glaucous, rather lax and less strong and fall off after drying. Midrib of leaf pale green. Bracts are glaucous green, acute, never deflexed, long persistent, deciduous only by rotting.

Andhra Pradesh: Visakhapatnam Dt.: Adapavalasa (alt. 950 m) Subba Rao 19702, 20th May 1964, rare; Errakonda (alt. 400 m) Subba Rao 24527, 5th July 1965, rare (MH).

Distribution: Burma, Thailand, S.W. China, Philippine Islands, New Guinea and Java; probably also in Assam (Simmonds, 1960).

Chakravorti (1948) described *Musa agharkarii* from Chittagong hill tracts. On an ex-

amination of the specimens deposited in the herbarium of the University of Calcutta and from the description, the authors conclude that it is no doubt a specimen of *Ensete* and in all probability it is *Ensete glaucum* (Roxb.) E. E. Cheesm. In the description the petiole length was stated as 4 inches (*i.e.* 10 cm) and the outer perianth was shown to be splitting into three strips. In our specimens the petiole is much longer and the outer perianth entire, without splitting into three strips.

Baker (1892) described the leaves as shortly petioled and calyx 3-cleft (from the entire description it is evident he means outer perianth).

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