

REDISCOVERY OF *HEMIORCHIS RHODORRHACHIS* K. SCHUM. (ZINGIBERACEAE) -
AFTER GAP OF A CENTURY WITH EXTENDED DISTRIBUTION

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Gustav Mann, a German horticulturist appointed by the authorities at Kew, came to the then Assam and Sikkim for rubber plantation as well as plant collection. In 1889 he collected some rhizomes from Khasia hills (now in Meghalaya) and sent them to England for cultivation. The rhizomes were grown there, which bloomed in the same year. During the same period, Baker was engaged in writing the family Scitamineae for Flora of British India at Kew. He observed Mann's collection in flowering, which he thought to be a species of Kurz *i.e.* *H. burmanica*, described in 1873. He illustrated and described the G. Mann's collection wrongly under the name *H. burmanica* in Botanical Magazine (1890). Again Baker (1890) retained the same while dealing with the Scitaminae in Hooker's Flora of British India. Schumann (1904) while preparing the monograph of Zingiberaceae was first to notice that the species dealt under the name of *H. burmanica* by Baker is in fact not the true *H. burmanica* of Kurz. Thus, he described the G. Mann's collection from Khasia hills as new species and gave the name *H. rhodorrhachis*.

Since, the establishment of *H. rhodorrhachis*, it is very poorly represented in Indian herbaria.

While studying and collecting the medicinal plant wealth of Buxa Tiger Reserve in Jalpaiguri district, West Bengal, one of us (PPG) came across a single population of *ca* 15 plants, growing near a stream under shade in South Raidak, which at first sight appeared to be an orchid. But after critical study it was identified as *H. rhodorrhachis*. Beside this, while scrutinizing the herbarium specimens at CAL it was observed that, three specimens of G. Mann collected in 1886, 1891 and 1886; one specimen of A.T. Gage collected in 1899, were also wrongly identified as *H. pantlingii* King. Critical study of these specimens proved them to be *H. rhodorrhachis*. After the collection of G. Mann and A.T. Gage the species could not be collected for a long time, either due to its rare occurrence in the natural habitat or no plant collector had visited during the flowering period. The present specimen has been collected after a gap of more than a century. So far, the species was reported only from its type locality, *i.e.* Khasia hills (Meghalaya). Thus, PPG's collection from Buxa Tiger Reserve (West Bengal), one of the specimens of Mann (1886) with Acc. No. 466026 from Sibsagar dist., Assam and

of Gage from Mizoram (1899) extend the range of distribution of the species from Meghalaya to West Bengal, Assam and Mizoram.

The genus is represented by 3 species. The key for distinguishing these species is given as follows:

- | | | |
|---|-----|-------------------------|
| 1a. Stamnodes up to 4 mm long | ... | <i>H. burmanica</i> |
| 1b. Stamnodes 7 mm long or more | ... | 2 |
| 2a. Corolla tube subequalling the calyx | ... | <i>H. rhodorrhachis</i> |
| 2b. Corolla tube longer than the calyx | ... | <i>H. pantlingii</i> |

The species *H. rhodorrhachis* K. Schum. is closely allied to *H. pantlingii* King but differs in having the acuminate apex of leaves, inflorescence dense raceme, peduncle covered with spathe; spathe 2-5 cm × .8 cm, calyx 0.3 -0.5 cm long, corolla tube 1.2 – 1.5 cm long, puberulous, corolla lobes incurved.

A detailed description and illustration of the species *Hemiorchis rhodorrhachis* for easy identification is provided.

Hemiorchis rhodorrhachis K. Schum. in Engler, Das Pflanzenreich heft 20: 128.1904; Rao & Verma in Bull. Bot. Surv. India 14 (1 - 4): 119. 1972; Mitra, Fl. Pl. East. India 1: 249. 1958. *H. burmanica* auct. non Kurz 1873: Baker in Curtis, Bot. Mag. 46 ser.3. t.7120.1890 & in Hook. f., Fl. Brit. India 6: 207. 1890. (Fig. 1)

Type : India: Khasia hill, 1889.G. Mann. s.n. (K – photo neg.!).

Herb, terrestrial, 10 – 15 cm tall. Rhizome vertical, cylindrical, ca 0.5 cm thick, muddy white outside, creamy white inside,. Leaves 3 –6, produced after flowering, sheathing the stem; lamina oblong – lanceolate, entire, margin membranous, apex acute, pubescent, dark green above, pale green beneath. Inflorescence radical, spike ca 12 cm long, peduncle covered with spathe; spathe 5 – 7, 4.0-6.2 cm long, round at tip, margin entire, puberulous, pink; flowers spirally arranged, 1 – 2 flowers open at a time, ebracteate, 1.8 – 2.2 cm long, orange coloured. Calyx 7 - 8 × 4 - 5 mm, tubular, trifid apically, pubescent; sinus ca 1.5 mm deep, lobes slightly bifid, pink. Corolla tube ca 8 mm long, orange. Lateral petals ca 12 × 5 mm, membranous, oblong-ovate, margin entire, hispidulous, apex obtuse, 3-nerved, cream coloured; dorsal lobe 12 × 7 mm, broadly oblong-ovate, margin entire, membranous, hispidulous, apex obtuse, 3-nerved, cream coloured. Stamnodes ca 12 × 7 mm, bit leathery, obliquely ovate-

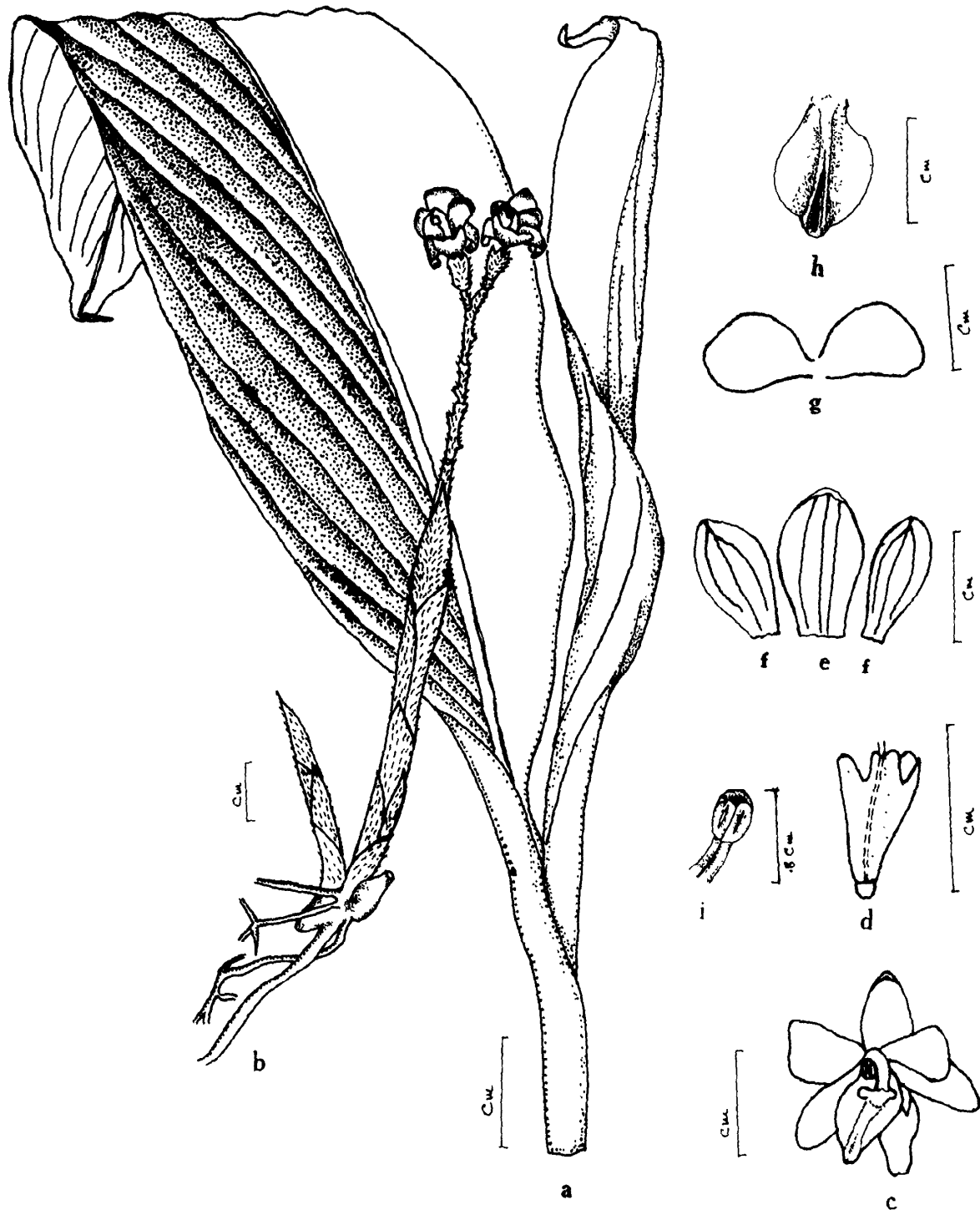


Fig. 1 : *Hemiorchis rhodorrhachis* K. Schum. :

a. plant without inflorescence; b. inflorescence; c. flower; d. calyx; e. dorsal petal; f. lateral petals; g. staminodes; h. lip and i. stamen. (a - redrawn from Curtis's Bot. Mag. 46, ser. 3, t. 7120.)

oblong, orange or yellow, margin entire, apex obtuse, 3-nerved, slightly clawed; claw *ca* 3 mm long. Lip 14 × 10 mm, broadly ovate or orbicular when open, yellowish or orange, spotted with red-brown dots, leathery, margin entire, deep orange midrib like appearance which is protruding out in beak-shaped structure. Stamen *ca* 8 mm long, anther *ca* 3 - 4 mm long, apiculate, yellow. Ovary *ca* 2 mm long, oblong, tomentose. Stigma rounded, pubescent, protruded out of anther.

Specimens examined : Assam: Sibsagar dist., May 1886, *G. Mann. s.n.*, Acc. No. 466026(CAL). Meghalaya : Khasia hills, Terriaghat, southern face of the Khasia hills, March 1886; *G. Mann s.n.* Acc. No. 466024, 466028 and 466025 (CAL); Khasia hills, March 1891, *s.n.* Acc. No. 466027 (CAL). Mizoram, Between ridge camp and Lungsin, 2-3000 ft, April 20 1899, *A.T. Gage* 202(CAL). West Bengal : Jalpaiguri, South Raidak - near Dhawli river. April 7 1999, *P.P. Ghoshal* 1615 (CAL).

Conservation measures : Before the collection of PPG, there were only three collections available in the CAL herbarium, the last being in 1899 (by A. T. Gage). So, our report from Buxa Tiger Reserve (which has got a National Park status) makes it interesting and indicates its rarity, but botanists may not encounter certain species with a short span of flowering and fruiting time, unless a specific search is made. As this species is very small in size and rhizomatous in habit, human interference in the localities from where it is reported, could make it extinct from that particular area. Whatever the case may be considering the available data, an attempt should be made for both the in-situ and ex-situ conservation of the species.

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