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V. N. PARDESHI

S. B. E. S. College of Science, Aurangabad

AND

D. S. POKLE

Deogiri College, Aurangabad

REFERENCES

- BRADLEY, W. H. *Gazetteer of Aurangabad District*. 1884.
- HIPPALGAONKAR, K. V. Some new records of plants in the flora of Aurangabad. *J. Biol. Sci.* 15 : 47. 1972.
- KHAN SHARF-UD-DIN. *Forest Flora of Hyderabad*. Hyderabad, 1953.
- NAIK, V. N. Critical notes on the flora of Aurangabad District.-I. *Marathwada Univ. J. Sci.* 8: 15-19. 1970a; II. *ibid.* 10(3) : 39-44. 1971; III. *ibid.* 12(5) : 11-13. 1973.
- Some new and noteworthy plants from India. *Proc. Indian Acad. Sci.* 71(6) : 226-229. 1970b.
- PATRIDGE, E. A. *Forest Flora of H. E. H. the Nizam's Dominions, Hyderabad, Deccan*. Hyderabad, 1911.
- TILAK, S. T. *Flora of Aurangabad. Marathwada Univ. Bot. Mem. no. 1*. Aurangabad, 1963.

HEDYCHIUM RADIATUM & H. ROBUSTUM (ZINGIBERACEAE)—TWO NEW SPECIES FROM KAMENG DISTRICT, ARUNACHAL PRADESH

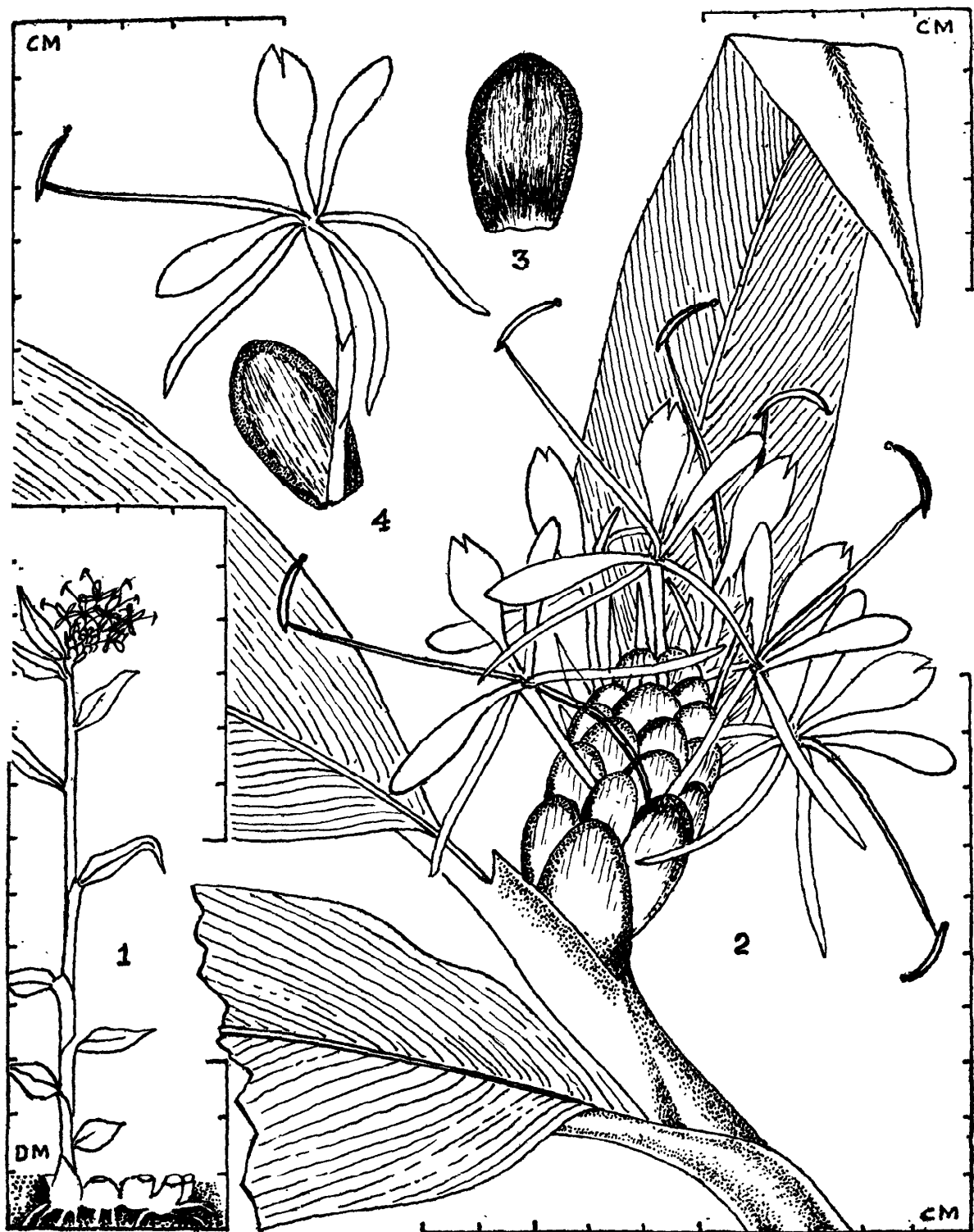
A critical study of some of the *Hedychium* plants, originally from Kameng district, Arunachal Pradesh, and cultivated in the 'Woodlands' Experimental Garden, Shillong, two of which bloomed for the first time, after due acclimatisation, proved to be new species. These are described and illustrated.

Hedychium radiatum A. S. Rao et P. K. Hajra, spec. nov. Affine *Hedychio elliptico* Buch.-Ham. ex J. E. Smith, a quo differt foliis adpresse pilosis, secus costas; bracteis rubello brunneis ad marginem labello latiore, staminibus uniformiter rubris.

Allied to *H. ellipticum* Buch.-Ham. ex J. E. Sm. but differs in its leaves being appressed hairy along the midrib, bracts and calyx pubescent at base; bracts reddish-brown at margin; labellum broader; stamens uniformly red.

Rhizome creeping, knotted and shortly branched, ca 2 cm across, brown outside, light creamy inside; roots 20.0-30.0 cm long, rope like, 2-3 mm across. **Stem** 0.8-1.0 m high, green with reddish-brown tinge.

Leaves 18.0-34.0 cm long, 6.0-14.0 cm broad, ovate or ovate-lanceolate, acuminate; upper surface glabrous; midrib beneath hairy; ligule 1.0-1.5 cm long, green with reddish-brown tinge, glabrous. **Spike** 8.5-11.0 cm long, cone-like, green with reddish-brown tinge, 11.5-15.0 cm across in flowers; bracts 2.0-3.5 × 1.0-3.0 cm, broadly elliptic to obovate, flatly imbricating, 2-3 mm along the margin reddish-brown, otherwise green, hairy at base, 1-flowered; bracteoles tubular, pinkish-green, obliquely convolute, 1.3-1.7 cm long. **Flowers** 11.0-11.2 cm long, 43-45 per inflorescence, white turning creamy in age, sweet-scented; **calyx** tubular, pinkish-yellow, 2.8-3.0 cm long, split on the side obliquely, almost equalling the bract, densely hairy at base; **corolla-tube** 5.0-5.5 cm long, pinkish; lobes linear, subequal, 3.5-4.5 cm long, 0.2-0.3 cm broad, greenish-yellow to yellow or creamy, inrolled; lateral staminodes spatulate, 3.0-3.2 cm long, 0.5-0.7 cm broad; **lip** 2.6-3.2 cm long, 1.0-1.3 cm broad, unguiculate, bilobed; sinus 0.3-0.5 cm deep; **stamen** stretched out, red; filament 4.0-5.5 cm long, exceeding the lip by 1.5-2.0 cm;



Hedychium radiatum A. S. Rao & P. K. Hajra, spec. nov.

Figs. 1-4 : 1. Habit. 2. Inflorescence with subtending leaves. 3. Bract. 4. Flower with bract. (A. S. Rao 56655 A)



Hedychium robustum A. S. Rao & P. K. Hajra, spec. nov.

Figs. 1-5; 1. Habit, 2. Inflorescence with subtending leaves. 3. Perigone with stamen. 4. Dehiscent capsule. 5. Seeds with aril spreadout. (A. S. Rao 56654 A)

anther 1.2-1.6 cm long, linear, curved, divergent at base; ovary ellipsoid, 0.4-0.5 cm long, creamy; style 10.5-11.0 cm long, white with pinkish tinge; stigma turbinate, red (Figs. 1-4).

Fls.: September.

Holotype A. S. Rao 56655 A, Nyertsephu-Wana camp road, Kameng dist., Arunachal Pradesh (CAL); Isotypes A. S. Rao 56655 B & C (ASSAM) and A. S. Rao 56655 D (BSD).

H. robustum A. S. Rao et P. K. Hajra, spec. nov. Affine *Hedichio dekiano* A. S. Rao et D. M. Verma sed differt habitu robusto, spicis magnis, bracteis laxis, labio sine sino, staminibusque brevioribus.

Allied to *H. dekianum* A. S. Rao & D. M. Verma, but differs in its robust habit; large spike; lax flowers; lip lacking a sinus and shorter stamen.

Rhizome creeping, stout, pale brownish outside, light yellowish inside, faintly aromatic; segments ovoid to subglobose, 4.0-5.5 cm across; roots stout 30.0-45.0 cm long, ca 0.5 cm across. *Stem* 2.6-2.8 m high (very rarely 1.4-1.5 m high), 2.8-3.5 cm across at base; base sheathed. *Leaves* 15-17 per plant, oblong-lanceolate, 45.0-75.0 cm long, 8.5-14.0 cm broad; upper surface hairy, and along the midrib only underneath; petioles progressively long, from 1-4 cm, the lowest leaf with the shortest petiole; ligule membranaceous, brownish or greenish-red, 1.5-2.0 cm long, bilobed. *Spike* 22.0-32.0 cm long (rarely 20.5 cm); rachis hairy; bracts 12-22 in a spike, convolute, lax, hairy, green

with brownish blotch, tip minutely fimbriate, 4.0-5.0 × 2.0-3.5 cm, each primary bract enclosing 9-11 successively opening flowers; bracteoles pubescent, brownish-green to green, imbricate, ovate at apex 2.5-4.5 × 0.5-2.0 cm. *Flowers* white, slightly fragrant; *calyx* membranaceous, tubular, split upto 1.0 cm on one side, longer than the bracts, toothed, with *corolla-tube* exceeding the bract by 1.0-2.5 cm; lobes linear, subequal, anterior ones ca 5.0 cm long, lateral lobes 4.0-4.5 × 0.2-0.4 cm; lateral staminodes spatulate, white, ca 4.5 cm long, 1.5 cm broad; *lip* suborbicular or broadly spatulate, white with pale yellow tinge in the middle, entire or undulate, ca 4.5-5.0 cm long, 3.5-4.0 cm broad, shortly clawed; *stamen* 1.5-2.0 cm, shorter than the lip; filament white, 2.0-2.5 cm long; anther linear, curved, ca 1.0 cm long, pinkish-green; *ovary* 0.5-1.0 cm long, ellipsoid; stigma white, capitate. *Fruits* ovoid, 3.2-3.5 cm long, 1.0-1.2 cm across, pinkish-green, finely hairy; seeds red, arillate; aril of 5-6 short filaments twisting and enveloping the seed (Figs. 1-5).

Fls.: August-September; *Frts.*: October-November.

Holotype A. S. Rao 56654 A, Jamiri, Kameng dist., Arunachal Pradesh (CAL); Isotypes A. S. Rao 56654 B-D (ASSAM).

A. S. RAO

Botanical Survey of India, Dehra Dun

AND

P. K. HAJRA

Botanical Survey of India, Shillong

MELOCALAMUS COMPACTIFLORUS BENTH. & HOOK. F.

—NEW RECORD OF FLOWERING IN INDIA

Melocalamus compactiflorus Benth. & Hook. f. Gen. Pl. 3: 1212. 1880-83; Hook. f. Fl. Brit. India 7: 409. 1897. *Dinochloa compactiflora* (Kurz) McClure in Kew Bull.

251. 1936; Bor in Fl. Assam 5: 23. 1940. According to Gamble (1896) this species of bamboo is distributed in Eastern Bengal and Burma from Sylhet through Chittagong