

with relevant notes. The specimens are in CAL & BSIS.

JALPAIGURI DISTRICT

Bulbophyllum affine Lindl. Gen. Sp. Orch. 48. 1830.

Pseudobulbs oblong cylindrical; rhizome stout; leaves 1 oblong, obtuse; flowers solitary, white, with red streaks.

Tondu forest, 12 km from Sulkapara, 15. 3. 1973, *B. Krishna* 243.

DARJEELING DISTRICT

Bulbophyllum odoratissimum Lindl. Gen. Sp. Orch. 55. 1830.

Pseudobulbs subcylindric; rhizome slender; leaves 1 short, obtuse, notched; flowers fragrant, yellow, in a globose head, atop a scape lateral to and about as long as the leaf.

Bhanjang forest, 17. 10. 1976, *B. Krishna* 2096.

Cymbidium giganteum Lindl. Gen. Sp. Orch. 163. 1833.

Pseudobulbs large, ovoid, sheathed with leaf-bases; leaves several, long, traplike; scape stout, several-flowered, arched; flowers large, brownish, with ciliate, purple-blotched, yellow lip.

Bhanjang forest, 17. 10. 1976, *B. Krishna* 2109.

Eria stricta Lindl. Coll. Bot. t. 41B. 1821.

Pseudobulbs cylindric; leaves 2, ovate, acute; spikes secund; flowers small, white, woolly.

Latpancher, 23. 3. 1973, *B. Krishna* 352.

Panisa uniflora (Lindl.) Lindl. Fol. Orch. 2. 1854.

Pseudobulbs small, ovoid, sheathed, crowded, scape short 1-2 flowered; flowers, creamy; lip with 2 small brown blotches.

Andheri jhora, 23. 3. 1973, *B. Krishna* 343.

ACKNOWLEDGEMENT

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NOTES ON RARE PLANTS FROM KHASI HILLS, MEGHALAYA

During a recent collection trip to Khasi Hills Distt., Meghalaya, the authors have collected two plants which on scrutiny are found to be rare and interesting, and are represented by only a few herbarium specimens collected about 100 years back. Considering their rarity the detailed descriptions with illustrations based on living as well as herbarium materials are given. The

specimens are deposited in the Herbarium of the Botanical Survey of India, Shillong.

Salvia saxicola Wall. ex Benth. in Wall. Pl. Rar. i, 68, 1830; J. D. Hooker, Fl. Brit. Ind. 4: 655, 1885; Kanjilal *et al.* Fl. Assam, 3: 518, 1939; *S. saxicola* Wall. Cat. 2147, 1828.

Small herbs. Rootstock woody. Leaves 3.5-4.7 × 4-5 cm, radical, ovate, oblong or rounded, cordate, coarsely crenate margins, lower surface hirsute along the veins and

veinlets, sometimes both the surfaces, midrib thick, *nerves* prominent beneath; *petiole* slender, pubescent, 2-8 cm long; *cauline leaves* minute, elliptic-oblong, dentate. *Scape* 4-22 cm high, pubescent; *whorls* distant or upper crowded. *Flowers* nodding, bracts small, elliptic-oblong; *pedicels* 5 mm

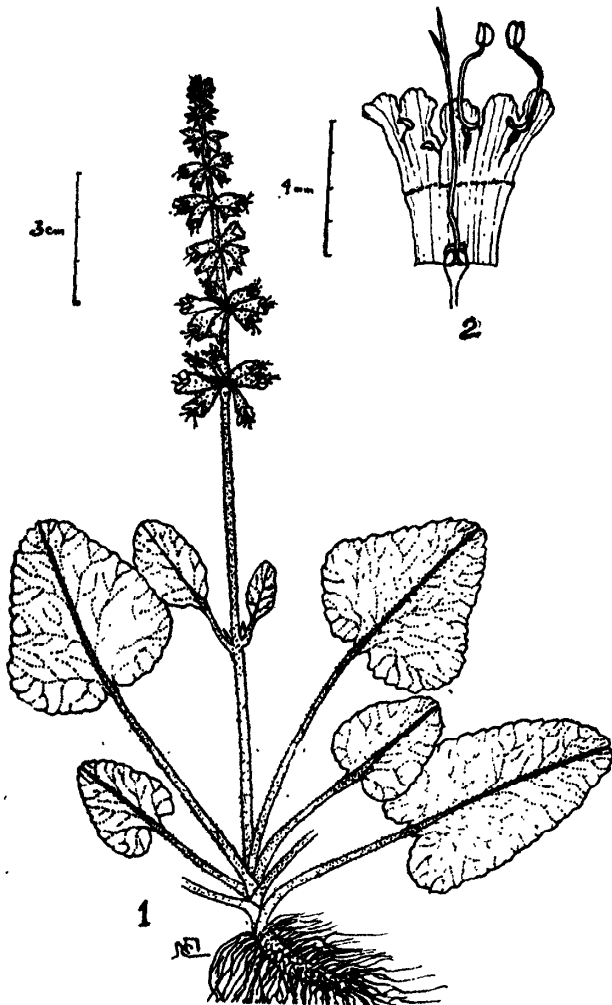


Fig. 1: *Salvia saxicola* Wall. ex Benth.
1. Habit. 2. Flower.

long, decurved, glandular hairy; *calyx* (in fls.) 4-5 mm, 7-8 mm (in frts.), glandular hairy, 2-lipped, upper entire, acute, lower deeply bifid; *corolla-tube* 5-6 mm long, white, upper surface hairy, glabrous inside; *stamens* 2, perfect, decurved, others shorter, acute; *anther* oblong, bilobed; *connectives* slender, distant; *style* 7 mm long, slender, obliquely 2-fid. *Nutlets* small, ellipsoid (Fig. 1).

Flowering: May to July.

Distribution: India and Nepal.

Specimens studied: MEGHALAYA: G. Mann (1876), Khasi Hills, Acc. Nos. 357366 (CAL), 22936-22940 (ASSAM); Gallatly (1878), Shillong, 128 (CAL); Prain (1892), Shillong-Jowai Road, Acc. No. 357359 (CAL); Carter (1918), Jowai, Acc. No. 357361 (CAL); Burkill et Banerjee (1911), Jowai, Acc. Nos. C 157263; 357363; Clarke (1868), Acc. No. 357368; Bhaumik (1975), Jakrem hot spring, Khasi Hills, 61894 (ASSAM).

Note: Our specimens bear white flowers as against the pale purple flowers (Hooker, 1885).

***Pomatocalpa ramosum* (Lindl.) Summerhayes** in Kew Bulletin, 56: 1948; Tang, T. & F. T. Wang in Acta Phytotax. Ser. 1 (i) 98, 1951. *Saccolobium ramosum* Lindl. Gen. et Sp. Orchid, 224, 1833. *Cleisostoma ramosum* (Lindl.) Hook. f., Fl. Brit. Ind. 6: 72, 1890.

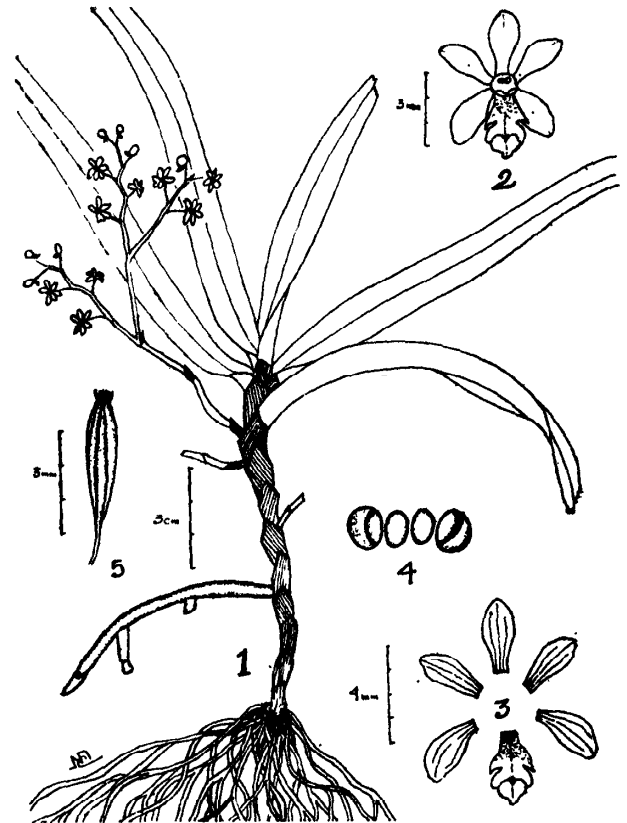


Fig. 2: *Pomatocalpa ramosum* (Lindl.) Summerhayes
1. Habit. 2. Flower. 3. Perigone. 4. Pollinia. 5. Capsule.

Epiphytes. *Roots* tufted. *Stem* elongating; leaves 11-18 cm long, channelled, apices primose. *Inflorescence* panicle, spreading, erect, leaf opposed. *Flowers* small star like, 5-8 mm across, yellow except the white lip; *dorsal sepal* erect, 3×1 mm, 3-nerved, spatulate, *laterals* spreading, 3×2 mm, oblique, obovate, 3-nerved; *petals* equal, spatulate, 3×1.5 mm, spreading, obtuse, margins near the apices crenate, 1-nerved; *lip* 3 mm long, white flushed with pink, 3-lobed, *sidelobes* subulate, *midlobe* thick, ovate with 2 side lobules, disk with a scale about the middle, hairs at base, *spur* white, incurved, cylindric, acute, not septate, hairy within, *callus* at the mouth of the spur flat, pubescent; *column* short, broad, *anther* rostrate; *pollinia* unequal, $4(2+2)$, smaller two occupy in the depression of the larger two; *stipe* thin, gland minute (take off when

dry); *pedicel* 5-7 mm long; *capsule* fusiform, 2-2.5 cm long, ridged (Fig. 2).

Flowering & Fruiting: April-May.

Distribution: Bangladesh, Burma and India (Sikkim).

Specimens studied: MEGHALAYA: *Bhaumik* (1975), Balat 62094 and Ranikor 62120, Khasi Hills (ASSAM).

Note: The callus at the mouth of the spur is entire and petals 1-nerved as against 2-lobbed callus and 3-nerved petals (Hooker, 1890).

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NEW DISTRIBUTIONAL RECORD OF *PTERNOPETALUM TANAKAE* (FRANCH. & SAV.) HAND.-MAZZT. FROM BHUTAN

The genus *Pternopetalum* with about 27 species is mainly Chinese in distribution, extending to Nepal in the West and Japan in the East. Of the three species recorded so far from India, *P. senii* Deb & Dutta is reported from Tirap district in Arunachal Pradesh, *P. radiatum* (W. W. Smith) P. K. Mukh. grows in Yeumtong and Sebu Valley in Sikkim and *P. vulgare* (Dunn) Hand.-Mazzt. has been collected from Kameng district in Arunachal Pradesh, Manipur and Nepal.

The present authors came across a specimen collected from Bhutan, which on examination against specimens and literatures is identified as *Pternopetalum tanakae* (Franch. & Sav.) Hand.-Mazzt. This species was earlier reported from Japan, Central China and Korea. A close affinity exists

between Umbellifers from China and Himalayas, particularly of Eastern Himalayas.

A brief description of the species is given below: Plants slender, 10-15 cm long, mostly simple, glabrous. Leaves few, basal ones ovate-deltoid in outline, 1-2.5 cm in diam., ternate pinnate; leaflets ovate orbicular, 5-10 mm long and broad, serrate to deeply incised. Cauline leaves pinnately divided. Involucre absent. Rays slender 4-10, 1-3 cm long, spreading. Pedicels mostly 2, very unequal, 0-1.5 mm. Involucel of 1-2 setiform bractlets, to 1.5 mm. Sepals not evident. Petals ovate acuminate but apex not inflexed. Fruit oblong ovoid, 1.5 to 2 mm long, ribs obscure, stylopodium low conic.

Specimen referred: Between Gyasa Dzong and Laya, Mo Chu, 3,200 m. 14. 6. 1949; F. Ludlow, G. Sheriff & J. H. Hicks, 16554 (CAL).