

10-13 cm long and 1.5-2 cm broad ; scape lateral, equalling the leaf ; flowers 2-3, sub-umbellate, yellowish brown ; sepals and petals glabrous, laterals hardly twice the length of the dorsal, slightly contorted. (Figs. 1-6)

Flowers (Dehra Dun) March 68 and 69. *Arora* 37821, fairly common in Didihat, District Pithoragarh.

Distribution : Nepal, Sikkim.

Liparis ridleyi Hook. f. Ic. Pl. t. 1887 (1889).

Epiphytic. Pseudobulbs tufted, 1-2 cm long, thin ; leaves linear lanceolate ; scape much longer than the leaves ; flowers small, bracteate ; bracts shorter than the pedicel ; column winged to the base ; wings with a capillary tail. (Figs. 1-5)

Flower (Pithoragarh) Jan. 1969. *Arora* 38848, Thalkedar, District Pithoragarh.

Distribution : Sikkim Himalaya.

Pholidota griffithii Hook. f. Ic. Pl. t. 1881 (1889).

Epiphytic. Internodes 8-13 cm ; racemes 2.5-5 cm long, decurved ; lip cymbiform with a didymous terminal lobe, no side lobes. (Figs. 1-4)

Flower (Dehra Dun) June 68 and 69. *Arora* 37872 ; common in Didihat, District Pithoragarh.

Distribution : Tropical Sikkim Himalaya ; Khasia Mts.

C. M. ARORA

Botanical Survey of India, Dehra Dun



Pholidota griffithii Hook. f.

Figs. 1-4 : 1. Plant with flowering spike. 2. Flower front view. 3. Floral parts. 4. Pollinia.

SOME ADDITIONS TO THE FLORA OF MIRZAPUR DISTRICT

Mirzapur District lies between 23° 45' and 25° 15' N and 82° and 83° 35' E. Duthie (1903-22) in his 'Flora of the Upper Gangetic Plain' mentions some plants collected from the region. Srivastava (1955) records 17 species as being new to the district. Among recent workers who have botanised the area were Rau and Bhattacharya of the Botanical Survey of India, the former in 1958 and the latter in 1961, respectively.

In the present work, the forests around Rihand Dam, Hathinala and also on way from Rihand to Varanasi have been visited during August-September 1968 period. The paper includes only those plants which were not mentioned by Srivastava (1955) and Bhattacharya (1963 & 1964) in their accounts. Of these, *Ceropegia hirsuta* Wt. & Arn. and *Elatostema cuneatum* Wight form new records for the Upper Gangetic Plain. All the

specimens cited in this paper have been kept in the Botany Department Herbarium of the Banaras Hindu University (BAN) and bear the collector's name as Reddi. The identity of some of the critical plants has been further confirmed at the Central National Herbarium, Calcutta.

MENISPERMACEAE

Anamirta paniculata Col.

Occasional, in flowers. Rihand, 1316.

MALVACEAE

Abelmoschus crinitus Wall.

Occasional on hill slope, in fruits. Rihand, 1294.

Azanza lampas (Cav.) Alef.

Frequent on hill slope, in flowers: Rihand, 1288.

STERCULIACEAE

- Eriolaena hookeriana** Nees
Rare, in fruits. Rihand, 1285.

TILIACEAE

- Grewia rothii** DC.
Occasional on hill slope along wayside, in flowers. Rihand, 1284.
G. tiliaefolia Vahl
Occasional near Rest House, in fruits. Hathinala, 1362.

VITACEAE

- Ampelocissus rugosa** (Wall.) Planch.
Common along wayside, in flowers. Rihand, 1279, 1341.

ANACARDIACEAE

- Semecarpus anacardium** Linn. f. var. **cuneifolia** Roxb.
Common on hill slope, in flowers. Rihand, 1307.

FABACEAE

- Dalbergia lanceolaria** Linn. f.
Uncommon, in flowers. Rihand, 1348.
Desmodium velutinum (Willd.) DC. var. **velutinum**
Occasional in forest undergrowth and in flowers. Rihand, 1338.
Tephrosia pumila Pers.
Fairly common in forest undergrowth and along wayside, in flowers and fruits. Rihand, 1281.

CAESALPINIACEAE

- Bauhinia vahlii** Wt. & Arn.
Rare inside forest in vegetative condition. Rihand, 1349.
Cassia pumila Lamk.
Common in forest undergrowth, in flowers. Rihand, 1303.

COMBRETACEAE

- Anogeissus sericea** Brand.
Frequent on hill slope, in flowers and fruits. Hathinala, 1351.

LYTHRACEAE

- Rotala pygmaea** Kurz
Frequent in damp shady area along stream, in flowers. Hathinala, 1392.

CUCURBITACEAE

- Cucumis melo** Linn. var. **agrestis** Naud.
Common in river bed, fruits eaten, in flowers and fruits. Rihand Dam, 1332.

MOLLUGINACEAE

- Glinus oppositifolius** (Linn.) DC.
Frequent in river bed, in flowers and fruits. Rihand Dam, 1333.

RUBIACEAE

- Hedyotis hispida** Retz.
Fairly common in forest undergrowth and along wayside, in flowers and fruits. Rihand, 1304.
Oldenlandia dichotoma Hook. f.
Occasional in moist area, in flowers. Hathinala, 1376.

ASTERACEAE

- Adenostema lavenia** (Linn.) Kuntze
Common in forest undergrowth, in flowers. Rihand, 1280.
Erigeron asteroides Roxb.
Common in forest undergrowth, in flowers. Rihand, 1257.

ASCLEPIADACEAE

- Ceropegia hirsuta** Wt. & Arn.
Rare among bushes, in flowers. Rihand, 1295, 1296.

MARTYNIACEAE

- Martynia annua** Linn.
Common along roadside and in waste area, in flowers and fruits. Rihand, 1297.

ACANTHACEAE

- Barleria cristata** Linn.
Occasional along wayside, in flowers. Rihand, 1329, 1397.
Ruellia suffruticosa Roxb.
Occasional among bushes along wayside, in flowers and fruits. Rihand, 1310.

LAMIACEAE

- Leucas mollissima** Wall.
Occasional, in flowers. Rihand, 1302.

LORANTHACEAE

- Viscum nepalense** Spr.
Common hemi-parasite in flowers, on *Bridelia squamosa* Gehrm. Rihand, 1379.

EUPHORBIACEAE

- Bridelia squamosa** Gehrm.
Frequent, in flowers. Rihand, 1322.
Phyllanthus urinaria Linn.
Common in moist area along stream, in flowers. Hathinala, 1377.

ULMACEAE

- Trema orientalis** (Linn.) Blume
Occasional, in flowers. Rihand, 1331.

URTICACEAE

- Elatostema cuneatum** Wight
Occasional in damp shady area along stream, in flowers. Hathinala, 1374.

ZINGIBERACEAE

- Curcuma angustifolia** Roxb.
Rare, in vegetative condition. Rihand, 1123.

LILIACEAE

- Chlorophytum tuberosum** (Roxb.) Baker
Occasional, in fruits. Rihand, 1301.

COMMELINACEAE

- Commelina attenuata** Koen. ex Vahl
Common among rocks near dam, in flowers and fruits. Rihand, 1306.
Murdannia nudiflora (Linn.) Brenan
Common in open area among low grass, in flowers and fruits. Markundighat, 1274; Rihand, 1282.

ARACEAE

- Plesmonium margaritiferum** (Roxb.) Sch.
Rare, in vegetative condition. Rihand, 1300.

CYPERACEAE

- Cyperus squarrosus** Linn.
Common in moist area, in flowers. Hathinala, 1356.
Scirpus roylei (Nees) Duthie
Common in moist area, in flowers. Hathinala, 1418.
Scleria elata Thw.
Rare on banks of a stream, in flowers and fruits. Hathinala, 1366.

POACEAE

- Arthraxon lancifolius** (Trin.) Hochst.
Common on river bank, in flowers. Hathinala, 1357.
Digitaria stricta Roth ex Roem. et Sch.
Occasional on river bank. Hathinala, 1375.
Eragrostiella bifaria (Vahl) Bor.
Common on river bank. Hathinala, 1369.
E. nardoides Trin.
Common on river bank, in flowers. Hathinala, 1365.
Iseilema laxum Hack.
Occasional, in flowers. Hathinala, 1368.
Pennisetum orientale L. C. Rich.
Frequent on river bank, in flowers. Hathinala, 1353.
Rottboellia exaltata Linn. f.
Common, in flowers. Rihand, 1275.

ACKNOWLEDGEMENTS

Thanks are due to Dr. A. C. Joshi, Vice-Chancellor, Banaras Hindu University, for guidance and to Prof. R. Misra, for giving necessary facilities.

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A NEW SPECIES OF *BULBOPHYLLUM* THOU. (ORCHIDACEAE) FROM EASTERN KUMAON

Bulbophyllum rau Arora, spec. nov.

Accedit and *B. reptans* Lindl. a quo tamen differt foliis minoribus, scapo foliis breviori, petalis ovatis subacutis trinerviis, labio non stipitato, linguiformi, non-sulcato, marginibus haud alatis, floribus numquam aperientibus.

Rhizoma filo metallico simile, tenue, 1-2 mm diam. squamis annularibus cito marcescentibus; pseudobulbi 3-5 cm distantes inter se, 1-1.5 cm longi,

obpyriformes, vaginati, vaginis ad maturitatem dilabentibus in fibras; folia lineari-oblonga, acuta, ad apicem emarginata, abrupte angustata ad basin in petiolum brevem, 4-7 cm longa, 5-8 mm lata, petiolis 2-4 mm; scapo foliis breviori, rarissime duplici, erecto, pedunculo bracteato. Flores viridescentes, conniventes, numquam aperientibus, 2-5 in singulis scapis, minute pedicellati, bracteati, bracteis oblongo-lanceolatis, 5-7 mm longis, 2 mm