

## REFERENCES

- ALMEIDA, J. F. R. d'. The Indian *Ophioglossums*. *J. Indian Bot. Soc.* 3 : 58-65. 1922.
- BALAKRISHNAN, N. P., K. THOTHATHRI AND A. N. HENRY. Some Indian *Ophioglossums*—Taxonomy and distribution. *Bull. bot. Surv. India* 2 : 335-339. 1960.
- BEDDOME, R. H. The ferns of Southern India. 1873 (Reprint 1970).
- Handbook of the Ferns of British India, Ceylon and Malay Peninsula. Calcutta, 1883.
- Handbook of the Ferns of British India, Ceylon and Malay Peninsula with Supplement. 1892 (Reprint 1969).
- BLATTER, E. AND J. F. R. d' ALMEIDA. The Ferns of Bombay, 1922.
- CHAKRAVARTY, H. L. Indian *Ophioglossum*. *Bull. bot. Soc. Bengal* 5 : 1-10. 1951.
- CLAUSEN, R. T. A monograph of the Ophioglossaceae. *Mem. Torr. Bot. Club.* 19 : 1-177. 1938.
- HOOKE, W. J. AND J. G. BAKER. Synopsis Filicum. London, 1868.
- MAHABALE, T. S. Species of *Ophioglossum* in India, their taxonomy and phylogeny. *Bull. bot. Surv. India* 4 : 71-84. 1962.
- NINAN, C. A. Studies on the Cytology and Phylogeny of Pteridophytes. *Cytologia* 23 : 291-316. 1958.
- PANIGRAHI, G. AND R. D. DIXIT. Studies in Indian Pteridophytes VI. The family Ophioglossaceae in India. *Proc. nat. Inst. Sci. India* 35 B : 230-266. 1969.

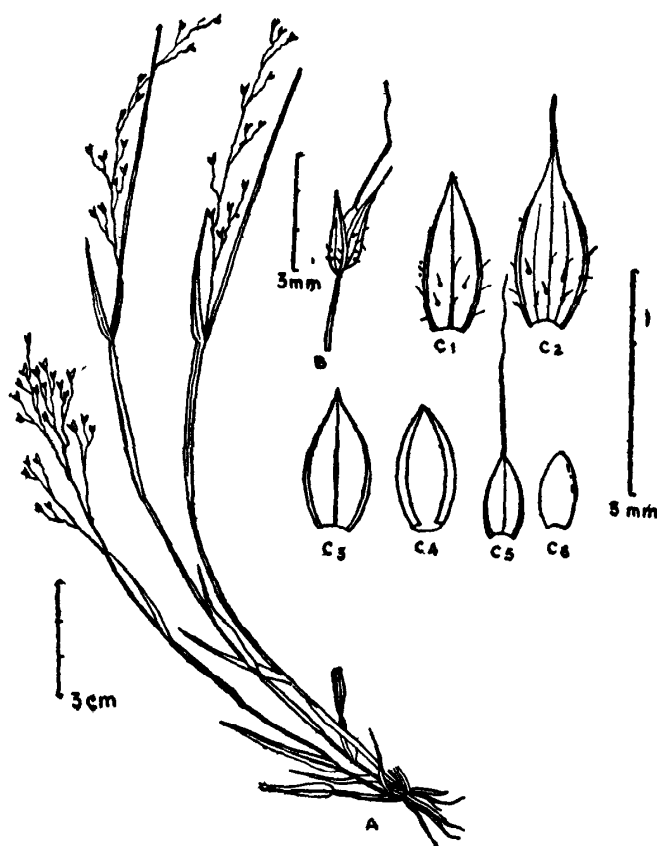
### ARUNDINELLA CILIATA (ROXB.) NEES EX MIQ.—A NEW RECORD FOR ERSTWHILE BOMBAY STATE

During recent botanical tour to North Kanara forests, a few interesting plants were collected. This note deals with the distribution of one of the grasses together with its nomenclature, detailed description and field observations.

**Arundinella ciliata** (Roxb.) Nees ex Miq. in Verh. Konink. Nederl. Inst. 3, t. 4, 30. 1851; Bor: 421. 1960. *Holcus ciliatus* Roxb. Fl. Ind. 1: 321. 1820. *Arundinella agrostoides* sensu Hook. f. Fl. Brit. India 7: 71. 1896, non Trin. 1836; Cooke, Fl. Pres. Bombay 3: 523. 1958 (reprint ed.) *A. holcoides* sensu Fischer in Gamble, Fl. Pres. Madras: 1247. 1934, non Trin. 1836.

A slender procumbent annual, 20-50 cm tall. Leaves 2-10 × 0.6-1.2 cm, lanceolate, acute, narrowed to the base, clothed with soft hairs; sheaths hairy; ligule a ring of hairs. Panicle 3-20 cm long, contracted. Spikelets on long slender pedicels, 2.5-3 mm long, ovate-lanceolate, the lower half hirsute with bulbous based hairs on the glumes. Lower glume 2 mm long, ovate, acute, 3-nerved; upper glume 2.5-3 mm long, lanceolate acuminate, 5-nerved. Lower lemma

shorter than the lower glume, ovate-acute, 3-nerved; its palea as much long. Upper



*Arundinella ciliata* (Roxb.) Nees ex Miq.

A. Portion of a plant. B. Spikelet. C. 1 & 2 Lower and upper glume. 3 & 4. Lower lemma and its palea. 5 & 6. Upper lemma & its palea.

lemma with 1 mm long blade and about 2 mm long, geniculate hairy awn, 3-nerved; its palea hyaline. Grain ovoid, filling the upper lemma and tightly enclosed in it at maturity.

This species was collected from Antroli near Kumta in N. Kanara, Karnataka. It is one of the dominant components in open situations on rocky soil of hill slopes and grows in association with other grasses and forbs.

*Flowers and fruits*: August to October.

There appears little doubt in respect of the distribution of this species. Hooker reported it to be occurring in "the Deccan Peninsula from the Concan southward". Cooke, without seeing the specimen from Bombay, merely repeated Hooker's citation of Wight's collection from Concan. Fischer reported it from "Western ghats" as well as from other areas of the old Madras State. Bor gave its distribution as "Madras State, endemic".

It is clear from the above facts that although Hooker, Cooke and Fischer could not distinguish this species from *A. agrostoides* Trin. [now correctly named as *A. holcoides*

(Kunth) Trin.], they were correct in giving its distribution from Concan southward, Western ghats etc. Bor, who has distinguished this species from *A. holcoides* (Kunth) Trin., (for differences see Bor *loc. cit.*) probably did not have any authentic specimen collected from Western India.

Now it can be said that this grass is distributed from Madras State to West coast of India in North Kanara.

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#### REFERENCES

- BOR, N. L. Grasses of Burma, Ceylon, India and Pakistan (excluding Bambuseae). London, 1960.  
 COOKE, T. The Flora of the Presidency of Bombay, 1901-1908.  
 GAMBLE, J. S. AND C. E. G. FISCHER. The Flora of the Presidency of Madras, 1915-1936.  
 HOOKER, J. D. The Flora of British India, 1872-1897.

### UNRECORDED SPECIES OF LICHENS FROM INDIA

In year 1967 a tour was undertaken to Shillong and the neighbouring areas of Khasia hills for the collection of lichens. These lichens were identified by the author in the Cryptogamic Unit, Botanical Survey of India, Howrah. Out of these collections eleven species were found to be new records for India. Three of these, belong to Pyrenulaceae, two to Arthoniaceae, one to Lecideaceae and one to Lecanoraceae. The specimens cited here are deposited in the Cryptogamic herbarium of the Botanical Survey of India, Howrah and Cryptogamic division of Vermont University, Burlington, U.S.A.

#### PYRENULACEAE

**Pyrenula feracissima** Vain. in Botan. Tidskrift. 29: 145. 1909; Zahlbr. Cat. Lich. Univ. 1: 430. 1922.

Thallus pale yellow, forming a thin smooth crust upon the bark, devoid of differentiation into layers. Perithecia minute to small, more or less immersed, the superficial portion hemispherical to conical, the ostiole minute, rarely visible.

Paraphyses unbranched. Spores brown, 8 in each ascus, ellipsoid to oblong-ellipsoid, 20-22 × 8-12  $\mu$ , 4-locular, apical cells smaller than the middle, cells lenticular. (Figs. I-III).

*Habitat*: On the bark of a tree.