

1916; Bor in Kew Bull. 1955. 400. 1955; Raizada in Ind. For Rec. (Bot.) 4 : 95. 1954; Bor, Grasses Burma, Ceyl. Ind. Pak. 421. 1960; Raizada, Grasses of Upp. Gang. Plain Pt. III. Pooideae. 19. 1983. *Panicum bengalense* Spreng., Syst. Veg. 1. 311. 1825. *Arundinella wallichii* Nees ex Steud Hook. f., Fl. Brit. India 7 : 75. 1896; Haines, Bot. Bih. & Ori. 2 : 984. 1924.

Perennial herbs. Culms stout, upto 1 m tall. Leaves 30-45 cm long, lanceolate acuminate. Sheaths loose. Ligule a ridge of hairs. Panicle elongate, erect; branches 2-3 cm long, spiciform. Spikelets 3-4 seriate, ovoid, secund, densely imbricate, stoutly pedicelled; rhachis angled and scabrid. Glume I $\pm$ 2.5 mm long, ovate-acute, scabrid on the nerves; glume II $\pm$ 3 mm long, broadly lanceolate, hairy on the nerves. Lower lemma male, oblong obtuse. Palea narrowly oblong, hyaline. Upper lemma hermaphrodite, $\pm$ 2 mm long, scabrid, ovate, shortawned. Callus very shortly bearded. Stamens 3.

Fl. & Fr. : August-November.

Specimen examined : J. & K. : Ghordi Village, Udhampur, 5.10.1986, *Ajai Swami* 1401. Uttar Pradesh : Kumaun, 4.10.1957, *T. A. Rao* 4760/7580 (BSD); Phulai (Corbett National Park), 16.11.1970, *P. C. Pant* 43258/53951 (BSD); Almora, 13.10.1975, *J. N. Vohra* 57890/69634 (BSD); Dehra Dun,

C. R. Babu 33397 (BSD). North East India : Shillong, Sept. 1937, *N. L. Bor* 15525/76154; (DD); Ghuniya-Assam, 11.9.1942, *N. L. Bor* 16332/94714 (DD).

Ecological notes : Rare, in damp and shady places, in fields and waste places.

Distribution : J. & K., Uttar Pradesh, Meghalaya, Assam, W. Bengal, Parasnath, Bihar, Burma, South-East Asia.

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ADDITIONS TO THE FLORA OF PUNJAB STATE, NORTH WEST INDIA

While compiling the 'Flora of Gurdaspur District' of Punjab State (Bir & Singh 1989; Bir *et al.* 1991) worked out under the Botanical Survey of India 'District Flora Scheme', examination of herbarium material at BSD revealed the collection of following species from the District. These have not been included by Sharma (1990) in his

'Punjab Plants : Check-list' These are reported here as New Additions to the region.

PAPILIONACEAE

***Desmodium heterocarpon* (Linn.) DC.**

A perennial herb in the hilly-tract.

Fl. & Fr. : August-December.

Dhar Kalan, U. C. *Bhattacharyya* 44477 (BSD).

Indigofera trifoliata Linn.

A perennial herb in shady, riverine localities.

Fl. & Fr. : August-November.

Dhar Kalan, U. C. *Bhattacharyya* 44690 (BSD).

MIMOSACEAE

Acacia gageana Craib.

A scrambling shrub in the hilly-tract.

Fl. : August-September, *Fr.* : November-April.

Dhar Kalan, U. C. *Bhattacharyya* 44498 (BSD).

CUCURBITACEAE

Trichosanthes bracteata (Lamk.) Voigt.

Perennial climber in the hilly-tract.

Fl. & Fr. : March-October.

Pathankot, U. C. *Bhattacharyya* 44322 (BSD).

RUBIACEAE

Argostemma sarmentosum Wall.

Found in humid, shady places in the hilly-tract.

Fl. & Fr. : August-November.

Dhar Kalan, U. C. *Bhattacharyya* 44330 (BSD).

ASCLEPIADACEAE

Tylophora hirsuta (Wall.) Wt. & Arn.

A twining perennial in the hilly-tract.

Fl. : July-October, *Fr.* : September-November.

Dhar Kalan, U. C. *Bhattacharyya*, 44450 (BSD).

CONVOLVULACEAE

Argyreia thomsonii (Clarke) Craib.

A slender twiner.

Fl. : August-October.

Dhar Kalan, U. C. *Bhattacharyya*, 44729 (BSD).

HYDROCHARITACEAE

Nechamandra alternifolia (Roxb.) Thwaites.

A submerged herb.

Fl. & Fr. : August-October.

Berhampur, U. C. *Bhattacharyya* 44435 (BSD).

APONOGETONACEAE

Aponogeton crispus Thunb.

A stoloniferous aquatic herb.

Fl. & Fr. : Rainy season.

Dera Baba Nanak, U. C. *Bhattacharyya* 44307 (BSD).

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