

TRANSFER OF SOME INDIAN SPECIES OF *BOTHRIOCHLOA* AND
CAPILLIPEDIUM TO *DICHANTHIUM*

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ABSTRACT

14 new combinations are proposed for the Indian species of *Bothriochloa* O. Ktze. and *Capillipedium* Stapf in the paper. A brief note on their distribution is also provided.

Hackel (1889) in his monograph of *Andropogoneae* divided the genus *Andropogon* Linn. into 11 sub-genera including *Amphilophis* Trin. & *Dichanthium* Hack. Later, Nash (1901) raised the subgenus *Amphilophis* to a generic status and A. Camus (1931) transferred it to *Bothriochloa* O. Ktze. Some of the species originally treated under the subgenus *Amphilophis* Trin. *B. capillipedes* were separated by Stapf (1917) to form a genus *Capillipedium*. He also raised the subgenus *Dichanthium* Hack. to the generic status under the name *Dichanthium* Willemet.

On the basis of morphological studies Ohwi (1947) merged the genera *Capillipedium* Stapf and *Bothriochloa* O. Ktze., while Gardener (1952) as well as Roberty (1960) united *Bothriochloa* O. Ktze. and *Dichanthium* Willemet.

Clausen (1951), Rollins (1953) & Stebbins (1956) concluded that when two organisms cross to produce fertile off-spring they belong to the same species and when two species cross they belong to the same genus. Since the three genera in question produced fertile hybrids like *B. glabra* (Roxb.) A. Camus and *B. grahamii* (Haines) Bor, de Wet & Harlan (1966) on the basis of cytological

& morphological studies merged all these three genera, the name *Dichanthium* Willemet (1796) taking precedence. They further indicated that from morphological and genetical point of view these are sections of a single genus.

Their views were very recently supported by Clayton (1977) who transferred some African species of *Bothriochloa* O. Ktze. to the genus *Dichanthium* Willemet.

Considering the foregoing it is proposed that the Indian species of *Bothriochloa* O. Ktze. and *Capillipedium* Stapf also should be transferred to the genus *Dichanthium* Willemet which necessitates the following name changes.

Dichanthium caucasicum (Trin.) Jain et Deshpande *comb. nov.* *Andropogon caucasicus* Trin. in Mem. Acad. Sci. Petersb. ser. 6(2): 286. 1832. *Bothriochloa caucasicum* (Trin.) C. E. Hubb. in Kew Bull. 1939: 101. 1939; Bor, Grass. Burma, Ceylon, India & Pakistan 106. 1960.

Distribution: Earlier reported only from North-west India. Now extends to West Bengal and Madhya Pradesh also.

D. compressum (Hook. f.) Jain et Deshpande *comb. nov.* *Andropogon compressa* Hook. f. Fl. Brit. India 7: 172. 1896. *Bothriochloa compressa* (Hook. f.) Henr. in Blumea 3: 456. 1940; Bor. (l.c.) 106. *B. ensiformis* (Hook. f.) Henr. in Blumea 3: 457. 1940

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Syn. nov.; Bor (*l.c.*) 107.

Distribution: Endemic to western ghats in Maharashtra State, especially in Lonavala and Khandala in Poona District.

D. concanensis (Hook. f.) Jain et Deshpande *comb. nov.* *Andropogon concanensis* Hook. f. Fl. Brit. India 7: 174. 1896. *Bothriochloa concanensis* (Hook. f.) Henr. in Blumea 3: 457. 1940; Bor (*l.c.*) 106.

Distribution: Fairly common in Maharashtra; rare in Karnataka.

Recently Bole and Almeida (1977) have indicated that *L. J. Sedgwick* 4652 (Nov. 1918), Mahabaleshwar, is an isotype. On the basis of Hooker's protologue (*l.c.*) 'Bombay, Woodrow (Herb. Bombay n. 28)' is the type specimen, available at Kew herbarium and therefore Sedgwick's specimen can not be treated as an isotype.

D. foulkesii (Hook. f.) Jain et Deshpande *comb. nov.* *Andropogon foulkesii* Hook. f. Fl. Brit. India 7: 174. 1896. *Bothriochloa foulkesii* (Hook. f.) Henr. in Blumea 3: 457. 1940; Bor (*l.c.*) 107.

Distribution: Endemic to Tamilnadu. Earlier reported only from Nilgiri Distt. (Tamilnadu); now extends to Tirunelveli Distt. also.

D. glabrum (Roxb.) Jain et Deshpande *comb. nov.* *Andropogon glaber* Roxb. Fl. Indica 1: 271. 1820. *Bothriochloa glabra* (Roxb.) A. Camus in Ann. Soc. Linn. Lyon, 1930, n.s. 76: 164. 1931; Bor (*l.c.*) 107.

Distribution: Common all over India.

D. kuntzeana (Hack.) Jain et Deshpande *comb. nov.* *Andropogon kuntzeana* Hack. in DC. Monogr. Phan. 6: 478. 1889. *Bothriochloa kuntzeana* (Hack.) Henr. in Blumea 3: 456. 1940; Bor (*l.c.*) 108; *B. longifolia* (Hack.) Bor, Grass. Burma, Ceylon, India & Pakistan 108. 1960 *Syn. nov.*

Distribution: N. W., Central and Peninsular India.

D. odoratum (Lisboa) Jain et Deshpande *comb. nov.* *Andropogon odoratus* Lisboa in J. Bombay nat. Hist. Soc. 4: 123. 1889. *Bothriochloa odorata* (Lisboa) A. Camus in Ann. Soc. Linn. Lyon, 1930. n.s. 76: 165. 1931; Bor (*l.c.*) 109.

Distribution: Endemic and common in Maharashtra, especially in Poona Distt.

This species is very similar to *D. glabrum* (Roxb.) Jain et Deshpande but differs from it in having panicles very silky hairy and scented; even a dried leaf of this species when crushed gives mild pleasant smell. Spikelets generally hidden due to long hairs of the joints and pedicels and sessile spikelets 4-5 mm long. In *D. glabrum* there is no odour even in fresh condition and panicles are glabrous or shortly hairy; sessile spikelets 3-4 mm long.

D. pseudoischaemum (Nees ex Steud.) Jain et Deshpande *comb. nov.* *Andropogon pseudoischaemum* Nees ex Steud. Syn. Pl. Glum. 1: 380. 1854. *Bothriochloa pseudoischaemum* (Nees ex Steud.) Henr. in Blumea 3: 457. 1940; Bor (*l.c.*) 109.

Distribution: Very interesting species as it shows disjunct distribution. Earlier known only from Peninsular India (Tamilnadu) and Ceylon, but now extends to Western Himalaya (Hazara Distt.) and W. Pakistan as well.

D. woodrowii (Hook. f.) Jain et Deshpande *comb. nov.* *Andropogon woodrowii* Hook. f. Fl. Brit. India 7: 173. 1896. *Bothriochloa woodrowii* (Hook. f.) A. Camus in Ann. Soc. Linn. Lyon, 1930. n.s. 76: 165. 1931; Bor (*l.c.*) 110.

Distribution: Known only from its type locality i.e. Mawal (Poona Distt.), Woodrow 27, Dec. 1894 (isotype, BLATT) and specimen without collector s. n. Dec. 1894.

D. filiculme (Hook. f.) Jain et Deshpande *comb. nov.* *Andropogon filiculmis* Hook. f. Fl. Brit. India 7: 181. 1896. *Capillipedium filiculme* (Hook. f.) Stapf in Hook. Ic. Pl. subtab. 3085. 1922; Bor (*l.c.*) 111.

Distribution: Maharashtra, Karnataka and Tamilnadu.

D. huegelii (Hack.) Jain et Deshpande *comb. nov.* *Andropogon huegelii* Hack. in DC. Monogr. Phan. 6: 492. 1889. *Capillipedium huegelii* (Hack.) Stapf in Hook. Ic. Pl. subtab. 3085. 1922; Bor (*l.c.*) 111.

Distribution: Rajasthan, Central India and Maharashtra.

D. magdalenii (Almeida) Jain et Deshpande *comb. nov.* *C. magdalenii* Almeida in J. Bombay nat. Hist. Soc. 72: 813-814. 1974.

Distribution: Known only from its type locality at Agumbe, in Karnataka State.

D. planipedicellatum (Bor) Jain et Deshpande *comb. nov.* *Capillipedium planipedicellatum* Bor in Kew Bull. 1949; 222. 1949. Bor (*l.c.*) 112. *Filipedium planipedicellatum* (Bor) Raizada et Jain in J. Bombay nat. Hist. Soc. 49: 683. 1951.

Distribution: Endemic in Manipur State.

D. pteropechys (Clarke) Jain et Deshpande *comb. nov.* *Andropogon pteropechys* Clarke in J. Linn. Soc. (Bot.) 25: 88, t. 38. 1899. *Capillipedium pteropechys* (Clarke) Stapf in Hook. Ic. Pl. subtab. 3085. 1922; Bor (*l.c.*) 113.

Distribution: Known only from the type locality: Kohima edge, Nagahills, C. B. Clarke 61896A (CAL).

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