

A CONTRIBUTION TO THE FAMILY GRAMINEAE OF THE
"FLORA OF THE PRESIDENCY OF MADRAS"

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ABSTRACT

This paper deals with the grasses added to the region since the publication of the *Flora of the Presidency of Madras* (Fischer, 1934 & 1936). Altogether 78 grasses are enumerated. From a careful study of the collections deposited in the herbarium of the Southern Circle, Botanical Survey of India, Coimbatore (MH), seven new records for the area are reported here.

INTRODUCTION

J. D. Hooker *et al.* (1896) reported 324 grasses (including the subfam. Bambusoideae), for the area as covered in the *Flora of the Presidency of Madras* (C. E. C. Fischer 1934 & 1936). Ranga Achariyar and Tadulinga Mudaliar (1921) published an account of 103 grasses occurring in South India (excluding Bambusoideae) with figures and descriptions. Later, Fischer (*l.c.*) who completed the compilation of J. S. Gamble's *Flora of the Presidency of Madras* included 411 taxa under the family, Gramineae. Recent workers, *viz.*, Bor (1946, 1948, 1949, 1950, 1951a, 1951b, 1952a, 1952b, 1952c, 1952d, 1952e, 1954a, 1954b, 1955, 1956, 1960), Krishnaswamy and Chandrasekharan (1958), Gopalakrishnan (1962), Balakrishnan (1964), Gupte (1964), Rao (1964), Jain (1966, 1967, 1968), Uppuluri and Satyavathi (1968) and Matthew (1969) have published new species and new records to this area. This has resulted in the addition of 71 taxa to those already given by Fischer (*l.c.*).

To supplement the information given in the *Flora of the Presidency of Madras*, a list of the grasses added, including introductions, in the area as covered in that flora are given in this paper, with their correct nomenclature and distribution. The taxa have been arranged alphabetically, of which seven are being reported for the first time from this area, and each of them is indicated by an asterisk. The studies on the specimens deposited in the Madras Herbarium, Coimbatore, including the recent collections of the Botanical Survey of India, Coimbatore, have proved to be invaluable in the preparation of this paper. While giving the distribution, the physiographical delimitations as proposed by Chatterjee (1965) have been followed,

ABBREVIATIONS

For economy of space, the following abbreviations have been used:

- Bor : *Grasses of India, Burma, Ceylon and Pakistan*. 1960.
FBI : *The Flora of British India* by J. D. Hooker *et al.* 1896.
M. : K. M. Matthew: *The exotic flora of Kodaikanal, Palni Hills*. 1969.

ENUMERATION

- Agrostis pilosula** Trin. var. **filifolia** Bor in Kew Bull. 1954: 459. 1954 ; Bor 389.
S. GHATS: Pulneys.
- A. zenkeri** Trin. in Mem. Acad. Sci. Petersb. ser. 6, 6, 2, 363. 1841 ; Bor in Kew Bull. 1954: 441. 1954 ; Bor 392. *Deyeuxia abnormis* Hk. f. FBI 7: 268.
W. GHATS: Nilgiris.
- ***Alloteropsis semialata** (R. Br.) Hitchc. var. **viatica** (Griff.) Ellis & Karthik. **stat. et. comb. nov.** (in press). *Aira viatica* Griffith, Not. Pl. Asiat. 3: 54. 1851. *Axonopus semialatus* (R. Br.) Hk. f. FBI 7: 64. *p.p.*
W. GHATS: Calicut.
- Andropogon polytychus** Steud. Syn. Pl. Glum. 1: 380. 1854 ; FBI 7: 198 ; Bor 91 ; Gupte in Madras Agric. J. 51: 398-399. 1964. *Dichanthium polytychum* (Steud.) A. Camus.
W. GHATS: Nilgiris.
- Apocopsis mangalorensis** (Hochst.) Henr. in Blumea 4: 523. 1941 ; Bor in Kew Bull. 1952: 110. 1952 ; Bor 96. *A. wightii* Hk. f. non Nees ex Steud. FBI 7: 142 (in part).
KARNATAKA COAST: Mangalore. KERALA PLAINS: Cannanore. S. DECCAN: Mysore. TAMIL NADU PLAINS: Chingleput. W. GHATS: Nilgiris.
- A. vaginatus** Hack. in Ost. Bot. Z. 41: 8. 1891 ; Bor in Kew Bull. 1952: 108. 1952 ; Bor 96. *A. wightii* Nees ex Thw. var. *vaginata* (Hack.) Hk. f. FBI 7: 143.

- ANDHRA PLAINS: Godavari.
- ***Arthraxon nudus** (Steud.) Hochst. in Flora 39: 188. 1856; Bor 101.
W. GHATS: Cannanore.
- A. prionodes** (Steud.) Dandy in Andrews. Fl. Pl. Sudan 3: 399. 1956; Bor 101. *A. lanceolatus* Hk. f. non Hochst. FBI 7: 143 (in part).
S. DECCAN: Bellary. TAMIL NADU UPLANDS: Madurai.
- Arthrochloa henrardiana** (Bor) Lorch in Journ. Ind. Bot. Soc. 39: 490. 1960. *Dactyloctenium henrardianum* Bor, Bor 489.
TAMIL NADU PLAINS: Ramanathapuram.
- Arundinella bengalensis** (Spreng.) Druce in Rep. Bot. Exchng. Club, Brit. Isles, 605. 1916; Bor 421; Balakrishnan in Bull. Bot. Surv. India. 6: 92. 1964. *A. wallichii* Nees ex Steud. FBI 7: 75.
ANDHRA PLAINS: Visakhapatnam.
- A. nervosa** (Roxb.) Nees ex Hook. & Arn. Bot. Beechey Voy. 237. 1836; Bor 424.
Madras (Meebold).
- A. purpurea** Hochst. ex Steud. var. **laxa** Bor in Kew Bull. 1955: 407. 1955; Bor 424.
W. GHATS: Nilgiris.
- A. setosa** Trin. var. **esetosa** Bor, Grasses of India, Burma and Ceylon 425. 1960.
Madras (Bor).
- A. tuberculata** Munro ex Lisboa in Journ. Bombay nat. Hist. Soc. 5: 344. 1891; FBI 7: 69; Bor 425.
Madras (Stocks.).
- Axonopus compressus** (Sw.) P. Beauv. Ess. Agrost. 12, 154, 167. 1812; Bor 278.
S. GHATS: Kottayam, Tirunelveli. TAMIL NADU UPLANDS: Coimbatore, Madurai. W. GHATS: Calicut, Nilgiris.
- ***Bothriochloa intermedia** (R. Br.) A. Camus var. **punctata** (Roxb.) Keng, Clav. Gram. Prim Sin. 244. 1957; Bor 108.
E. GHATS: Ganjam. W. GHATS: Calicut.
- B. longifolia** (Hack.) Bor, Grasses of India, Burma and Ceylon 108. 1960. *Andropogon pertusus* var. *longifolia* Hack. FBI 7: 174. Madras (Wallich).
- Briza media** Linn. Sp. Pl. ed. 1: 70. 1753; FBI 7: 336; Bor 528; M. 225.
S. GHATS: Pulneys.
- Bromus diandrus** Roth, Bot. Abh. 44. 1787; Bor 454.
W. GHATS: Nilgiris (C. McCann).
- Capillipedium venustum** (Thw.) Bor, Grasses of India, Burma and Ceylon, 113. 1960. *Andropogon venustus* Thw. FBI 7: 178. Madras (Bor).
- Chloris gayana** Kunth ex Stapf in Dyer, Fl. Cap. 7: 642. 1900; Bor 466.
TAMIL NADU UPLANDS: Coimbatore.
- Coix aquatica** Roxb. Fl. Ind. ed. 2, 3: 571. 1832; FBI 7: 100; Bor 264.
ANDHRA PLAINS: Godavari. S. DECCAN: Karimnagar. S. GHATS: Anamalais. TAMIL NADU UPLANDS: Coimbatore. W. GHATS: Calicut, Nilgiris.
- Cortaderia selloana** (Schult.) Aschers. & Graebn. Syn. Mitteleur. Fl. 2: 325. 1900; Bor 415; M. 229.
S. GHATS: Pulneys. W. GHATS: Nilgiris.
- Cymbopogon travancorensis** Bor in Journ. Bombay nat. Hist. Soc. 52: 174. 1954; Bor 132.
S. GHATS: Anamalais, Tirunelveli.
- Cynodon barberi** Rang. & Tad. forma **longifolium** Jain in Indian For. 92: 699-700. 1966.
E. GHATS: Nalgonda.
- Cyrtococcum deccanense** Bor in Kew Bull. 1956: 255. 1956; Bor 291. *Panicum patens* Hk. f. FBI 7: 57 (in part) non Linn. 1753.
S. GHATS: Kottayam. TAMIL NADU UPLANDS: Coimbatore. W. GHATS: Nilgiris.
- ***C. muricatum** (Retz.) Bor, Grasses of India, Burma and Ceylon 291. 1960.
S. GHATS: Tirunelveli.
- Digitaria brownii** (R. & S.) Hughes in Kew Bull. 1923: 313. 1923; Bor 300.
Madras (Gamble).
- D. violascens** Link Hort. Berol. 1: 229. 1827; Bor 307.
Madras (Gamble).
- Dimeria acutipes** Bor in Kew Bull. 1952: 560. 1953; Bor 138.
TAMIL NADU PLAINS: Chingleput.
- D. ceylanica** Bor in Kew Bull. 1952: 562. 1953; Bor 140.
KERALA PLAINS: Cochin. S. DECCAN: Mysore.
- D. deccanensis** Bor in Kew Bull. 1952: 578. 1953; Bor 140.
Madras (Bor).
- D. fischeri** Bor in Kew Bull. 1952: 564. 1953; Bor 140.
E. GHATS: Ganjam.
- D. kurrumthotticalana** K. C. Jacob in Journ. Bombay nat. Hist. Soc. 47: 49. 1947; Bor 140.
S. GHATS: Kottayam.

- Dimeria mooneyi** Raizada ex Mooney, Suppl. Bot. Bihar and Orissa, 263. 1950; Bor in Kew Bull. 1952: 569. 1952; Bor 142.
W. GHATS: Shimoga.
- Eragrostis atrovirens** (Desf.) Trin. ex Steud. Nom. Bot. ed. 2, 1: 562. 1840; Bor 503.
Madras (Bourne).
- E. curvula** (Schrud.) Nees, Fl. Afr. Austr. 397. 1841; Bor 507; M. 228.
S. GHATS: Pulneys. W. GHATS: Nilgiris.
- ***E. diplachnoides** Steud. Syn. Pl. Glum. 1: 268. 1854; Bor 508. *E. interrupta* Beauv. var. *diplachnoides* (Steud.) Stapf. FBI 7: 316.
E. GHATS: Kurnool.
- E. macilenta** (A. Rich.) Steud. Syn. Pl. Glum. 1: 268. 1854; Bor 509.
S. GHATS: Pulneys.
- E. tef** (Zucc.) Trotter in Bull. Soc. Bot. Ital. 62. 1918 in obs.; Bor 513.
W. GHATS: Nilgiris.
- E. tenella** (Linn.) P. Beauv. ex Roem. & Sch. var. *insularis* C. E. Hubb. in Kew Bull. 1939: 654. 1939; Bor 514.
S. India (Bor).
- Eremochloa zeylanica** Hack. in DC. Monogr. Phan. 6: 263. 1889; FBI 7: 140; Bor in Kew Bull. 1952: 314. 1952; Bor 148.
Madras (Bor).
- Euchlaena mexicana** Schrad. Ind. Sem. Hort. Goettingen, 1832; Bor 265.
TAMIL NADU UPLANDS: Salem (Introduced).
- Festuca undata** Stapf var. *aristata* Stapf in Hk. f. Fl. Brit. Ind. 7: 351. 1896; Bor 542; Jain in Indian Forester 94: 327. 1968.
S. GHATS: Pulneys.
- Garnotia arborum** Stapf ex Woodrow in Journ. Bombay nat. Hist. Soc. 13: 439. 1901; nomen; descr. in Cooke, Fl. Bomb. 2: 1013. 1908. Bor 567.
Madras (Bor).
- Hemarthria altissima** (Poir.) Stapf & C. E. Hubb. in Kew Bull. 1934: 109. 1934; Bor 160.
Madras (Rottler).
- Heteropogon triticeus** (R. Br.) Stapf ex Craib in Kew Bull. 1912: 432. 1912; Bor 165. *Andropogon triticeus* R. Br. FBI 7: 200.
Madras (Bor).
- Hubbardia heptaneuron** Bor in Kew Bull. 1950: 385. 1951; Bor 572.
W. GHATS: Shimoga.
- ***Ichnanthus vicinus** (F. M. Bail.) Merr. in Enum. Philipp. Fl. Pl. 1: 70. 1923; Bor 314. *I. pallens* Hk. f. non Munro, FBI 7: 60.
E. GHATS: Visakhapatnam. W. GHATS: Nilgiris.
- Isachne deccanensis** Bor in Kew Bull. 1949: 95. 1949; Bor 579.
W. GHATS: Nilgiris.
- I. pulchella** Roth ex R. & S. Syst. Veg. 2: 476. 1817; Roth, Nov. Plant. Sp. 59. 1821; Bor in Kew Bull. 1952: 322. 1952; Bor 582.
ANDHRA PLAINS: Godavari. TAMIL NADU FLAINS: Thanjavur.
- Ischaemum flumineum** Bor in Kew Bull. 1949: 572. 1950; Bor 178.
TAMIL NADU UPLANDS: Coimbatore.
- I. tumidum** Stapf ex Bor in Kew Bull. 1951: 450. 1952; Bor 186.
Madras (Stocks.).
- Iseilema venkateswarlui** Satyavathi in Journ. Bombay nat. Hist. Soc. 65: 666. 1968.
ANDHRA PLAINS: Guntur.
- Leptaspis urceolata** (Roxb.) R. Br. in Benn. Pl. Jav. Rar. 23. t. 6. 1838; Bor 617; Rao in Curr. Sci. 33: 120. 1964.
S. GHATS: Quilon.
- ***Lolium temulentum** Linn. Sp. Pl. ed. 1: 83. 1753; Bor 546.
S. GHATS: Kottayam.
- Manisuris clarkei** (Hack.) Bor apud Santapau, Fl. Khandala 357. 1953; Bor 191. *Rottboellia clarkei* Hack. FBI 7: 156.
W. GHATS: Coorg.
- M. divergens** (Hack.) O. Ktze. Rev. Gen. Pl. 2: 779. 1891; Bor 701; Jain in Bull. bot. Surv. India 9: 293. 1967. *Rottboellia divergens* Hack. FBI 7: 155.
W. GHATS: Coorg.
- Microchloa kunthii** Desv. Opusc. 75. 1831; Bor 474.
S. GHATS: Pulneys.
- Ophiuros bombaiensis** Bor in Kew Bull. 1951: 167. 1951; Bor 198.
W. GHATS: Shimoga.
- Oryza officinalis** Wall. ex Watt. Dict. Econ. Ind. 5: 501. 1891. *O. latifolia* Hk. f. non Desv. FBI 7: 92. *O. minuta* J. S. Presl. ex C. B. Presl, Bor 605. subsp. *officinalis*
S. GHATS: Tirunelveli.
subsp. *malampuzhaensis* (Krishnasw. & Chandra-
sek.) Tateoka in Bot. Mag. Tokyo 75: 422. 1962.
Oryza malampuzhaensis Krishnasw. & Chandra-
sek., Bor 606.

E. GHATS: Kurnool. S. GHATS: Trichur. TAMIL NADU UPLANDS: Coimbatore. W. GHATS: Malappuram.

Oryza rufipogon Griff. Notul. 3: 5. 1851; Bor 605.
O. sativa Hk. f. non Linn. FBI 7: 92 (in part).
Madras (Bor.)

Panicum fischeri Bor in Kew Bull. 1956: 257. 1956; Bor 325.

E. GHATS: Chittoor. S. GHATS: Tirunelveli. W. GHATS: Nilgiris.

Pennisetum purpureum Schumach. Beskr. Guin. Pl. 44. 1827; Bor 348; M. 222.

E. GHATS: Visakhapatnam. S. DECCAN: Mysore. S. GHATS: Pulneys. TAMIL NADU UPLANDS: Coimbatore.

Phalaris tuberosa Linn. Mant. 2: 557. 1771; Bor 616; M. 230.
S. GHATS: Pulneys.

Poa gamblei Bor in Kew Bull. 1948: 144. 1948; Bor 556.
W. GHATS: Nilgiris.

Rhynchelytrum repens (Willd.) C. E. Hubb. in Kew Bull. 1934; 110. 1934; Bor 355.

S. DECCAN: Mysore. S. GHATS: Kottayam, Tirunelveli. TAMIL NADU UPLANDS: Coimbatore. W. GHATS: Nilgiris. Shevaroyas.

Schima ischaemoides Forssk. Fl. Aegypt.-Arab. 178. 1775; Bor 218.
Madras (Woodrow).

Setaria barbata (Lamk.) Kunth, Rev. Gram. 1: 47. 1829; Bor in Kew Bull. 1954: 553. 1955; Bor 360. *Panicum flavescens* Hk. f. FBI 7: 56. non Sw. Madras (Bourne).

S. homonyma (Steud.) Chiov. in Nuovo Giorn. Bot. Ital. n.s. 26: 78. 1919; Bor in Kew Bull. 1954: 554. 1955; Bor 361. *Panicum rhachitrichum* Hk. f. non Hochst. FBI 7: 56.
S. DECCAN: Bellary. W. GHATS: Cannanore.

S. plicata (Lamk.) T. Cooke, Fl. Bombay 2: 919. 1908; Bor in Kew Bull. 1954: 550. 1955; Bor 364. *Panicum plicatum* Lamk. FBI 7: 55.
W. GHATS: Nilgiris.

S. poiretiana (Schult.) Kunth, Rev. Gram. 1: 47. 1829; Bor 364.
W. GHATS: Nilgiris.

Sorghum controversum (Steud.) Snowden in Journ. Linn. Soc. (Bot.) 55: 210. 1955; Bor 222.
Madras (Bor).

S. miliaceum (Roxb.) Snowden var. **parvispiculum** Snowden in Journ. Linn. Soc. (Bot.) 55: 209. 1955; Bor 223.

Madras (V. Narayanaswami).

S. propinquum (Kunth) Hitchc. var. **siamense** (Piper) Snowden in Journ. Linn. Soc. (Bot.) 55: 214. 1955; Bor 223.
Madras (Bourne).

S. verticilliflorum (Steud.) Stapf in Prain, Fl. Trop. Afr. 9: 116. 1917; Bor 223.
Madras (Wallich).

Vulpia megalura (Nutt.) Rydb. in Bull. Torr. Bot. Club 36: 538. 1909; Bor in Journ. Bombay nat. Hist. Soc. 50: 342. 1952; Bor 564.
W. GHATS: Nilgiris (introduced).

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