

available in the Indian herbaria.

After 80 years of its description, this orchid was again collected away from the type locality.

Specimens examined: NILGIRI Dt.: Kudini, 1450 m, 2-8-1972, Subbarao 41606.

ACKNOWLEDGEMENTS

The authors are thankful to the owners of Marva Halla Estate, Kottagiri, Nilgiri Dt. for their kind help and interest; to the Director,

Royal Botanic Gardens, Kew and Dr. F. M. Jarrett also of Kew for their help in identifying the fern and supplying type description of the orchid; to the Director, Botanical Survey of India for the facilities and encouragement.

G. V. SUBBA RAO, G. R. KUMARI
AND

V. CHANDRASEKARAN
Botanical Survey of India, Coimbatore

NOTES ON SOME INTERESTING GRASSES FROM SOUTHERN INDIA

This note records the occurrence of *Eulalia thwaitesii* (Hack.) O. Ktze. for the first time in India, and two other little known grasses, namely *Andropogon polyptychus* Steud. and *Garnotia exaristata* F. W. Gould which are inadequately represented in the Indian herbaria. They were collected during the botanical explorations in Anaimudi, the highest peak in Southern India. *Andropogon polyptychus*, however, was also collected from the high altitudes of Nilgiris (Tamil Nadu). They have been critically studied and our determinations were confirmed at the Central National Herbarium, Calcutta.

Eulalia thwaitesii (Hack.) O. Ktze. Rev. Gen. Pl. 2: 775. 1891; Bor, Grasses of Burma, Ceylon, India and Pakistan 157. 1960. *Polinia thwaitesii* Hack. in DC. Monogr. Phan. 6: 163. 1889; Hook. f. Fl. Brit. India 7: 111. 1895; *P. tristachya* sensu Thw. Enum. Pl. Zeyl. 368. 1864.

This species has hitherto been regarded as endemic to Ceylon. The present collection from the western slopes of Anaimudi, Devicolam, Idikki Dt., Kerala is, therefore, a new distributional record for the species. It can easily be differentiated from the other species of *Eulalia* reported by C.E.C. Fischer in Gamble's *Flora of the Presidency of Madras* by the following key:

1. Basal sheaths glabrous
 2. Leaves aggregated near the base, sub-distichous; lower glume dark brown ... *E. thwaitesii* (Hack.) O. Ktze.
 2. Leaves not as above, often broad; lower glume pale brown
 3. Sessile spikelet 2.5-3.5 mm long, more or less enclosed by white hairs; lower glume elliptic with narrow flaps ... *E. trispicata* (Schult.) Henr.
 3. Sessile spikelet 4-6.5 mm long; hairs not enclosing the spikelets; lower glume oblong-elliptic with very broad flaps ... *E. wightii* (Hook. f.) Bor
1. Basal sheaths reddish-brown tomentose at base ... *E. phaeothrix* (Hack.) O. Ktze.

Specimen examined: KERALA: Idikki Dt., Western slopes of Anaimudi, Devicolam, 2,500 m, common, 19-11-1965, B. V. Shetty 26540 (MH).

Andropogon polyptychus Steud. Syn. Pl. Glum. 1: 380. 1854; Thw. Enum. Pl. Zeyl. 367. 1864; Hack. in DC. Monogr. Phan. 6: 578. 1889; Hook. f. Fl. Brit. India 7: 198. 1896; Bor, Grasses of Burma, Ceylon, India and Pakistan 91-93. fig. 1. 1960; Gupte in Madras Agric. J. 51: 398-399. 1959. *A. polyptychus* Steud. var. *deccanensis* Bor (*Ibid.* 91. 1960) ex W. D. Clayton in Kew Bull. 27: 448. 1972, *syn. nov.* *Dichanthium polyptychum* (Steud.) A. Camus in Bull. Mus. Hist. Nat. Paris

27: 549. 1921. Fischer in Gamble, Fl. Pres. Madras 3: 1207. 1957 (rep. ed.); Bor, *Ibid.* 135. 1960. *D. polyptychum* (Steud.) A. Camus var. *deccanense* Bor, *Ibid.* 135. 1960.

C.E.C. Fischer (*l.c.*) includes *Andropogon polyptychus* in *Dichanthium* and reports it from Nilgiri and Pulney Hills, based on the collections of Bourne. N. L. Bor (*l.c.*) treats this species under both the genera, namely *Andropogon* (p. 91) and *Dichanthium* (p. 135). Considering that it is limited in its distribution to Ceylon and Burma, he cites this as an "instance of the puzzling discontinuous distribution of certain grasses". The specimens collected by Bourne, namely No. 1622 and 1377 (type) from Pulneys (wrongly given as Nilgiris by Bor, *l.c.*) were assigned by him to a new variety, namely var. *deccanensis*. He differentiated the varieties, *polyptychus* and *deccanensis* as follows:

Leaves flat; racemes several; peduncle below inflorescence glabrous; awn 1.5 cm long	...	<i>A. polyptychus</i> var. <i>polyptychus</i>
Leaves filiform; racemes 1 or 2; peduncle hairy below inflorescence; awn over 2 cm long	...	<i>A. polyptychus</i> var. <i>deccanensis</i>

Bor (*l.c.*) also pointed out that "this variety is most probably worthy of being elevated to specific rank as it differs in some important respects from the Ceylon plant". The publication of the name *Andropogon polyptychus* Steud. var. *deccanensis* Bor (*l.c.*) was, however, invalidated by the publication, in the same work, of an alternative combination with *Dichanthium polyptychum* (Steud.) A. Camus. Recently, W. D. Clayton (Kew Bull. 27: 448. 1972) validated it and its correct nomenclature is *Andropogon polyptychus* Steud. var. *deccanensis* Bor ex W. D. Clayton.

S. C. Gupte (*l.c.*) recorded the occurrence of *Andropogon polyptychus* Steud. var. *polyptychus* as new to India, based on the collections from the high altitudes of Nilgiris. While his report from India solved the puzzle about its discontinuous distribution, it,

however, raised the problem regarding the status of the Indian variety. He also pointed out that the variety *deccanensis* occurs near Upper Bhavani in Nilgiris, but without citing any collections. According to him var. *deccanensis* differs from the typical variety in having leaves mostly basal and filiform with ashy green colour. He also upholds Bor's view that this variety is most probably worthy of being elevated to a specific rank.

During the botanical explorations in Anaimudi (Kerala) and Upper Bhavani (Nilgiris) the present authors observed *Andropogon polyptychus* Steud. to be one of the dominant grass species in the grasslands in both the localities. The present report of its occurrence in Anaimudi, thus, extends the distribution of this species, previously known only from Tamil Nadu (formerly Madras State), to the adjoining State of Kerala. Critical studies of the specimens collected from these localities show that the leaves are mostly basal and flat with the peduncles hairy below the inflorescence (which is often deciduous). It is of interest to note that in the collections of *A. polyptychus* var. *polyptychus* from Ceylon which are deposited in the Madras Herbarium (C. P. 121-acc. no. 56841; C. P. 32-acc. no. 88930) the peduncle is hairy below the inflorescence. The other delimiting characters between var. *polyptychus* and var. *deccanensis*, such as number of racemes and the length of awn, are quantitative and are found to vary in the specimens studied. Hence, none of the differences ascribed to var. *deccanensis* by Bor may be relied upon as a constant character to draw a clear cut line between the typical variety and var. *deccanensis*. Moreover, the type material of *Andropogon polyptychus* Steud. var. *deccanensis* Bor ex W. D. Clayton (Poombarai road, Pulneys, 8-5-1899, Bourne 1337) which is deposited in the Madras Herbarium shows that the basal leaves are burnt and folded, and the filiform nature is due to biotic and other ecological factors. In our collections from Nilgiris also (Shetty

34193 and 34195) the leaves are rather narrow and here too the basal leaves are burnt. Since our plant exhibits the characters of both the varieties of *A. polyptychus* (as keyed out by Bor and Gupte) we merge var. *dec-canensis* with the typical one. A varietal or subspecific status for the Indian plant is not justifiable until we have suitable evidence from experimental taxonomy.

Specimens examined: KERALA: Idikki Dt., Anaimudi slopes, 2,575 m, 19-11-1965, B. V. Shetty 26536; Umaiyamallay, Anaimudi slopes 2,150 m, 3-2-1970, B. V. Shetty 33408. TAMIL NADU: Nilgiri Dt., Bison Swamp, 2,300 m, 11-6-1970, B. V. Shetty 34193 & 34195; Carriott, Sho'la, 2,010 m, 5-2-1971, J. L. Ellis 37870. Madurai Dt., Poombarai road, Pulneys, 8-5-1899, Bourne 1337 (Type) (All in MH). CEYLON: Locality and collector not indicated, C. P. 121-acc. no. 56841; C. P. 32-acc. no. 88930 (Both in MH). Locality and collector not indicated, C. P. 32-acc. no. 531303; C. P. ?-acc. no. 531301 (Both in CAL).

Garnotia exaristata F. W. Gould in Kew Bull. 27: 558. 1972. *G. mutica* sensu Bor, Grasses of Burma, Ceylon, India and Pakistan 568. 1960, non Druce, 1916. *G. tectorum* Hook. f. Fl. Brit. India 7: 242.

1896 *quoad descr.* (excl. syn.) *nom-illegit.*; C. E. C. Fischer in Gamble, Fl. Pres. Madras 8: 1255. 1957 (rep. ed.)? *G. tectorum* Hook. f. var. *valida* Santos in Natural & Applied Sci. Bull. 10: 50. 1950.

This grass has been reported from Southern India and Ceylon. Though it is quite common in Ceylon it is reported from Southern India (Gould, *l.c.*; Bor, *l.c.*; Fischer, *l.c.*) based on only two collections, one from Cochin-Coimbatore, without collector's name (K) (the type of *G. tectorum* Hook. f. var. *valida* Santos) and the other from Travancore, viz. Meebold 13538 (K). This rare and interesting grass with awnless lemma was again collected from Umaiyamallay, Anaimudi slopes by one of the present authors. For a detailed description and nomenclature reference may be made to the publication by Gould (*l.c.*).

Specimen examined: KERALA: Idikki Dt., Umaiyamallay, Anaimudi slopes, 2,125 m, not common, 6-8-1967, B. V. Shetty 28328 (MH).

B. V. SHETTY

Botanical Survey of India, Jodhpur

AND

S. KARTHIKEYAN & K. VIVEKANANTHAN

Botanical Survey of India, Coimbatore

A NEW PLANT RECORD FOR INDIA

The genus *Rumex* L. (Polygonaceae) with about 200 species is widely distributed throughout the world; nearly 18 species are represented in India mainly confined to the Himalayan region.

Rambles through the valley of Kashmir have enabled the authors to collect certain specimens, which on critical scrutiny were identified as *R. conglomeratus* Murr., a taxon well represented in Europe, Africa, S. W. Asia, but not recorded hitherto from Indian Sub-continent. The taxon was 'matched'

and identified from available Herbarium specimens at Central National Herbarium, Calcutta and now has been described and illustrated for reference. The Herbarium specimens except (A. H. Munshi 1235) which is deposited in the Natural History Museum, Vienna, 1014, Austria, are deposited in the Herbarium of Botany Department, Kashmir University, Srinagar-6.

R. conglomeratus Murray, Prodr. Des. Strip. Gott. 52. 1770; Meisn. ap. DC. Prodr. 14: 59. 1856; Boiss. Fl. Orien. 4: 1010. 1879;