

LECTOTYPIFICATION OF TEN SPECIES OF *MURDANNIA* ROYLE (COMMELINACEAE)Anna Ancy Antony A¹, Veena V² and Santhosh Nampy^{2*}¹Department of Botany, St. Albert's College, Ernakulam, Kerala, India²Department of Botany, University of Calicut, Kerala – 673 635, India*Corresponding author email id: santhoshnampy5@gmail.com

ABSTRACT: While revising the genus *Murdannia* in India, as part of a taxonomic revision, we came across problems in the typification of ten names, viz. *M. dimorpha* (Dalzell) G. Brückn. (= *Aneilema dimorphum* Dalzell), *M. hookeri* (C.B. Clarke) G. Brückn. (= *Aneilema hookeri* C.B. Clarke), *M. lanuginosa* (Wall. ex C.B. Clarke) G. Brückn. (= *Aneilema lanuginosum* Wall. ex C.B. Clarke), *M. loriformis* (Hassk.) R.S. Rao & Kammathy (= *Aneilema loriforme* Hassk.), *M. pauciflora* (G. Brückn.) G. Brückn. (= *Aneilema pauciflorum* Wight), *M. triquetra* (Wall. ex C.B. Clarke) G. Brückn. (= *Aneilema triquetrum* Wall. ex C.B. Clarke), *M. simplex* (Vahl) Brennan (= *Commelina simplex* Vahl), *M. juncooides* (Wight) R.S. Rao & Kammathy (= *Dichaespermum juncooides* Wight), *Aneilema ensifolium* Wight and *Dichaespermum repens* C.B. Clarke, that are discussed here and lectotypes designated.

Key words: *Murdannia*, India, lectotypifications

INTRODUCTION

The genus *Murdannia* Royle is represented by 54 species in the world [1], distributed mainly in the Old World tropics. It is the largest genus of Commelinaceae in India with 26 species [2, 3, 4]. Extensive explorations and collections were made by the authors during the taxonomic revision of the genus in India. Live as well as specimens housed in various herbaria were studied as part of the work. The ambiguities in the typification of 10 names were addressed here and lectotypes designated. The purpose of this paper is to contribute stability in nomenclature by lectotypifying the names.

MATERIALS AND METHODS

Extensive field studies were conducted and live materials were collected from different parts of India. Specimens housed in ASSAM, BLAT, BSI, BSD, BSJO, CALI, CAL, DD, DEV, JCB, PBL, KFRI, MH, RHT, RRLB, and TBGT were consulted. Images of type specimens were procured from virtual data bases of different herbaria K, B, E, MEL, US, BM, BR, C, G, L. Identification was done in consultation with the types and protologue. Acronyms of herbaria are according to Index Herbariorum [5]. Nomenclature were updated and lectotypes selected by using authentic literature and type specimens.

RESULTS AND DISCUSSION

1. *Murdannia dimorpha* (Dalzell) G. Brückn. in Engl., Nat. Pflanzen. ed. 2, 15a: 173. 1930. (= *Aneilema dimorphum* Dalzell, Hooker's J. Bot. Kew Gard. Misc. 3: 138. 1851).

Lectotype: India, *s. loc., s. die*, Dalzell N.A. *s.n.*(K !, designated here) **Fig. 1**



Figure 1: Lectotype of *Murdannia dimorpha* (Dalzell) G. Brückn., [Dalzell N.A. s.n., K [©The Board of Trustees of the Royal Botanical Gardens, Kew. Reproduced with permission].

Aneilema dimorphum was described by Dalzell [6] as “.... basi parte ramose.. ramis erectis striatis, folis inferioribu slineari- acuminate, superioribus lanceolatis acutis, floribus dichotomo-paniculatis paucis....” in Hooker’s Journal of Botany based on materials collected from Malwan provinces (present day Maharashtra) of India. There are three sheets at Kew with the label Bombay herbarium of late N.A. Dalzell (K000854001, K000854002 and K000854003). Of these, K000854002 matches perfectly with the description and hence designated here as the lectotype.

2. *Murdannia hookeri* (C.B. Clarke) G. Brückn. in Engl., Nat. Pflanzen. ed. 2, 15a: 173. 1930. (= *Aneilema hookeri* C.B. Clarke, Commelyn. Cyrtandr. Bengal 29. 1874).

Lectotype: India, Meghalaya, Khasia hills, *s.die*, J.D. Hooker & Thomson s.n. (CAL!, designated here; iso, MH!).
Fig. 2



Figure 2: Lectotype of *Murdannia hookeri* (C.B. Clarke) G. Brückn. [J.D. Hooker & Thomson s.n., CAL] [©Central National Herbarium. Reproduced with permission].

Clarke [7] described *M. hookeri* (as *Aneilema hookeri*) based on Hooker & Thomson's material from Khasia hills. During the present study, we consulted these specimens housed at CAL and MH. The material from CAL exactly matches with the illustration provided in the protologue. Hence, Hooker & Thomson's material at CAL (CAL0000001151) is designated here as the lectotype.

3. *Murdannia lanuginosa* (Wall. ex C.B. Clarke) G. Brückn. in Engl., Pflanzen. ed. 2, 15a: 173. 1930. (= *Aneilemala lanuginosum* Wall. ex C.B. Clarke in DC., Mon. Phan. 3: 214. 1881).

Lectotype: Wall. Cat. 5221 (K!), designated here). **Fig.3**

Clarke [8] in *Monographiae Phanerogamarum* described *Murdannia lanuginosa* (as *Aneilemala lanuginosum*) based on Wallich catalogue number 5221. There are 4 specimens in Wallich catalogue No. 5221, of which the uppermost specimen is designated here as the lectotype.



Figure 3: Lectotype of *Murdannia lanuginosa* (Wall. ex C.B. Clarke) G. Brückn. [Wall. Cat. 5221 K] [©The Board of Trustees of the Royal Botanical Gardens, Kew. Reproduced with permission].

4. *Murdannia loriformis* (Hassk.) R.S. Rao & Kammathy, Bull. Bot. Surv. India 3: 393. 1962. (= *Aneilema loriforme* Hassk., F.A.W. Miquel, Pl. Jungh. 143. 1852).

Lectotype: Java, Mt. Unugerang, near Medini, *Junghuhn s.n.* (L !, designated here). **Fig. 4**

Hasskarl [9] described *Murdannia loriformis* (= *Aneilema loriforme*) based on the materials from mount Unugerang, Java. Junghuhn's material deposited at L (L0041700) is selected here as the lectotype.

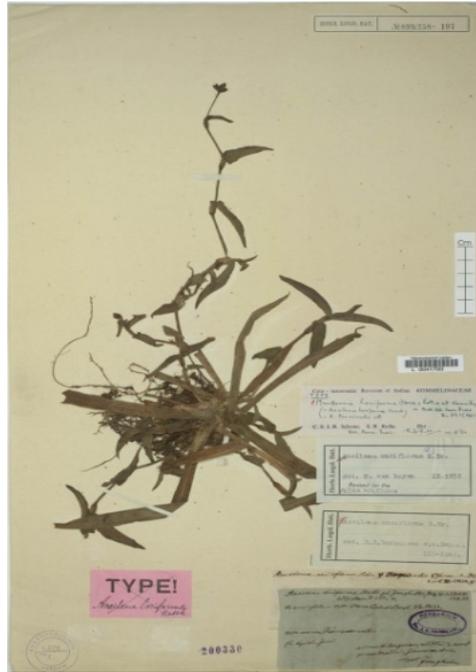


Figure 4: *Murdannia loriformis* (Hassk.) R.S. Rao & Kammathy [Junghuhn s.n., L.] [©Board of Trustees of The Leiden Herbarium, Nederlands. Reproduced with permission].

5. *Murdannia pauciflora* (G. Bürckn.) G. Brückn. in Engl., Pflanzen. ed. 2, 15a: 173. 1930. (= *Aneilema pauciflorum* Wight, Icon. Pl. Ind. Orient. 6: 31, t. 2077. 1853).

Lectotype: India, Quilon, 10.1835, s.coll.1179 (K !, designated here; iso E !). **Fig. 5**



Figure 5: Lectotype of *Murdannia pauciflora* (G. Bürckn.) G. Brückn. [Quilon, 1179, E.] [©The Board of Trustees of the Royal Botanical Garden Edinburgh. Reproduced with permission].

Wight [10] in his *Icones Plantarum Indiae Orientalis* gave the type locality as Quilon. During the present work we studied Wight's materials deposited at K (K000854089) and E (E00179411). In both the sheets collection number is given as 1179 with the annotation 'Quilon October 1835'. The K sheet (K000854089) also has an annotation on Wight's handwriting is selected here as the lectotype.

6. *Murdannia triquetra* (Wall. ex C.B. Clarke) G. Brückn. in Engl., Nat. Pflanzen. ed. 2, 15a: 173. 1930. (= *Aneilema triquetrum* Wall. ex C.B. Clarke in A. DC. & C. DC., Monogr. Phan. 3: 208. 1881).

Lectotype: Bangladesh, Silhet, Wallich No. 5220 (B!, designated here). **Fig. 6**

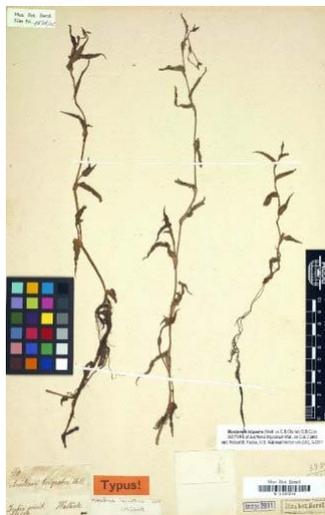


Figure 6: Lectotype of *Murdannia triquetra* (Wall. ex C.B. Clarke) G. Brückn. [Wallich No. 5220, E.] [©The Board of Trustees of the Royal Botanical Garden Edinburgh. Reproduced with permission].

Aneilema triquetra was described by Clarke [8] in *Monographiae Phanerogamarum* and mentioned the locality as 'India Orientalis Sylhet et Assam'. During the present work, three sheets of *Murdannia triquetra* from Wallich's collection were located at K (K000854086); E (E00393352) and B (B100367814). The sheet at B bearing field label 5220 with annotation 'India Orient, Silhet, Wallich' is selected here as the lectotype.

7. *Murdannia simplex* (Vahl) Brenan, Kew Bull.7: 186. 1952. (= *Commelina simplex* Vahl, Enum. Pl. 2: 177. 1805).

Lectotype: Africa, Guinea, Thonning *s.n.* (C!, designated here). **Fig. 7**



Figure 7: Lectotype of *Murdannia simplex* (Vahl) Brenan, [Thonning *s.n.*, C.] [© Board of Trustees of the National History Museum of Denmark. Reproduced with permission].

There are five sheets of *M. simplex* at the Natural History Museum of Denmark, one from Isert's collection C10003563 and other four C10003559, C10003560, C10003561, C10003562 from Thonning's collection. Vahl [11] in *Enumeratio Plantarum* describes *Murdannia simplex* with 'habitat in Guinea, Isert, Thonning'. Isert's specimen C10003563, with locality Guinea is designated as lectotype here.

8. *Murdannia juncooides* (Wight) R.S. Rao & Kammathy, Bull. Bot. Surv. India 6: 3. 1965. (= *Dichaspermum juncooides* Wight, Icon. Pl. Ind. Orient. 6: 31.t. 2078. 1853).

Lectotype: India, Tamil Nadu, Thirunelveli district, Courtallum, 07.1835, Wight 967 (E image!, designated here; iso, K !). **Fig. 8**

Wight [10] described *Dichaspermum juncooides* as "erect, ramous..... filaments glabrous..... cells 6–8 seeded in 2 rows." based on his materials from Courtallum and Quilon. In the present investigation, Wight's material at K (K000854059) and E (E00179413) (image) has been consulted. Among them, Wight's material at E (E00179413) annotated "Courtallum July. 1835, 967," agreeing with the protologue is designated here as the lectotype.



Figure 8: Lectotype of *Murdannia juncooides* (Wight) R.S. Rao & Kammathy, [Wight 967, E] [©The Board of Trustees of the Royal Botanical Garden Edinburgh. Reproduced with permission].

9. *Aneilema ensifolium* Wight, Icon. Pl. Ind. Orient. 6:30. t. 2072. 1853.

Lectotype: India, Courtallum, 1835, *Herb. Wight, s.n.* (E !, designated here). **Fig. 9**

Wight [10] in '*Icons Plantarum*' mentioned the type locality of *Aneilema ensifolium* as Courtallum, Ceylon. He describes the plant to be perennial with thick succulent roots, whole plant as glabrous and with highly secund inflorescence. Two sheets from Wight's herbarium were identified, one at E (E00179409) and other at PDA. The material at E perfectly matches the plate and description in the protologue and was collected at Courtallum, 1835. The sheet at PDA shows clear thick roots, with a field ticket 'Ceylon March 1836' and a label with description as 'calyx 3 sepals 3 stamens.....Courtallum'. The Specimen at E (E00179409) is designated here as the lectotype. This species is presently treated as a synonym of *Murdannia gigantea* (Vahl) G. Brückn.



Figure 9: Lectotype of *Aneilema ensifolium* Wight [Herb. Wight, s.n., E] [©The Board of Trustees of the Royal Botanical Garden Edinburgh. Reproduced with permission].

10. *Dichaespermum repens* C.B. Clarke, Commelyn. Cyrtandr. Bengal. 42. t. 28. 1874. non Wight, 1853.
Lectotype: India, Assam, s.loc.,s.die, Masters s.n. (CAL! designated here). **Fig.10**

Clarke [7] in *Commelinaceae Cyrtandrae Benghalensis* described *Dichaespermum repens* as sub glabrous, with pedicels hardly exerted from the sheath and with 30 seeds per capsule. Clarke cited the locality as Assam. At CAL there are 3 sheets of *Dichaespermum repens* with field ticket Assam, Masters and annotated 'seeds about 30 to the capsule, *Dichaespermum repens*'. Of these, CAL 0000001152 is selected here as the lectotype. This species is presently treated as a synonym of *Murdannia blumei* (Hassk.) Brenan.



Figure 10: Lectotype of *Dichaespermum repens* C.B. Clarke, [Masters s.n, CAL.] [© Central National Herbarium. Reproduced with permission].

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