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Murdannia fadeniana Nampy & Joby (Commelinaceae), a new species from India

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ABSTRACT

NAMPY, S. & P. JOBY (2003). *Murdannia fadeniana* Nampy & Joby (Commelinaceae), a new species from India. *Candollea* 58: 79-82. In English, English and French abstracts.

A new species of *Murdannia* Royle (Commelinaceae), *Murdannia fadeniana* Nampy & Joby, is described and illustrated from India.

RÉSUMÉ

NAMPY, S. & P. JOBY (2003). *Murdannia fadeniana* Nampy & Joby (Commelinaceae), une nouvelle espèce décrite d'Inde. *Candollea* 58: 79-82. En anglais, résumés anglais et français.

Une nouvelle espèce du genre *Murdannia* Royle (Commelinaceae), *Murdannia fadeniana* Nampy & Joby, d'Inde est décrite et illustrée.

KEY-WORDS: COMMELINACEAE – *Murdannia* – Kerala – India.

The genus *Murdannia* Royle [nom. cons.], with about 50 species, is pantropical and warm temperate and exhibits greatest diversity in tropical Asia (FADÉN, 2000). In India the genus is represented by twenty-three species (RAO & al., 1968). During revisionary studies of the family *Commelinaceae* in southern Peninsular India, we came across some interesting specimens of *Murdannia* from Vagamon, Kottayam District in Kerala, India, that did not fit any described species of this genus. Detailed study proved that it is a new species, which is described and illustrated below.

***Murdannia fadeniana* Nampy & Joby, spec. nova (Fig.1)**

Holotype: INDIA: Kerala, Kottayam District, Vagamon Hills, 900 m alt., 26.XII. 2001, Nampy 431 (K; Iso-: CALI, SJC*).

A M. glauca seminibus biseriatis et in quoque loculo plus numerosis, staminodiis floris tribus differt.

Rosette perennial, occasionally laterally branched; roots confined to base, fibrous. Leaves all in a basal rosette; lamina oblong or oblanceolate, 4-12 × 1.8-3 cm; base amplexicaul; margin undulate, hyaline; apex acuminate; upper surface glabrous, pale green to dark green; lower

*Herbarium of St. Joseph's College, Kozhikode-8, Kerala, India.

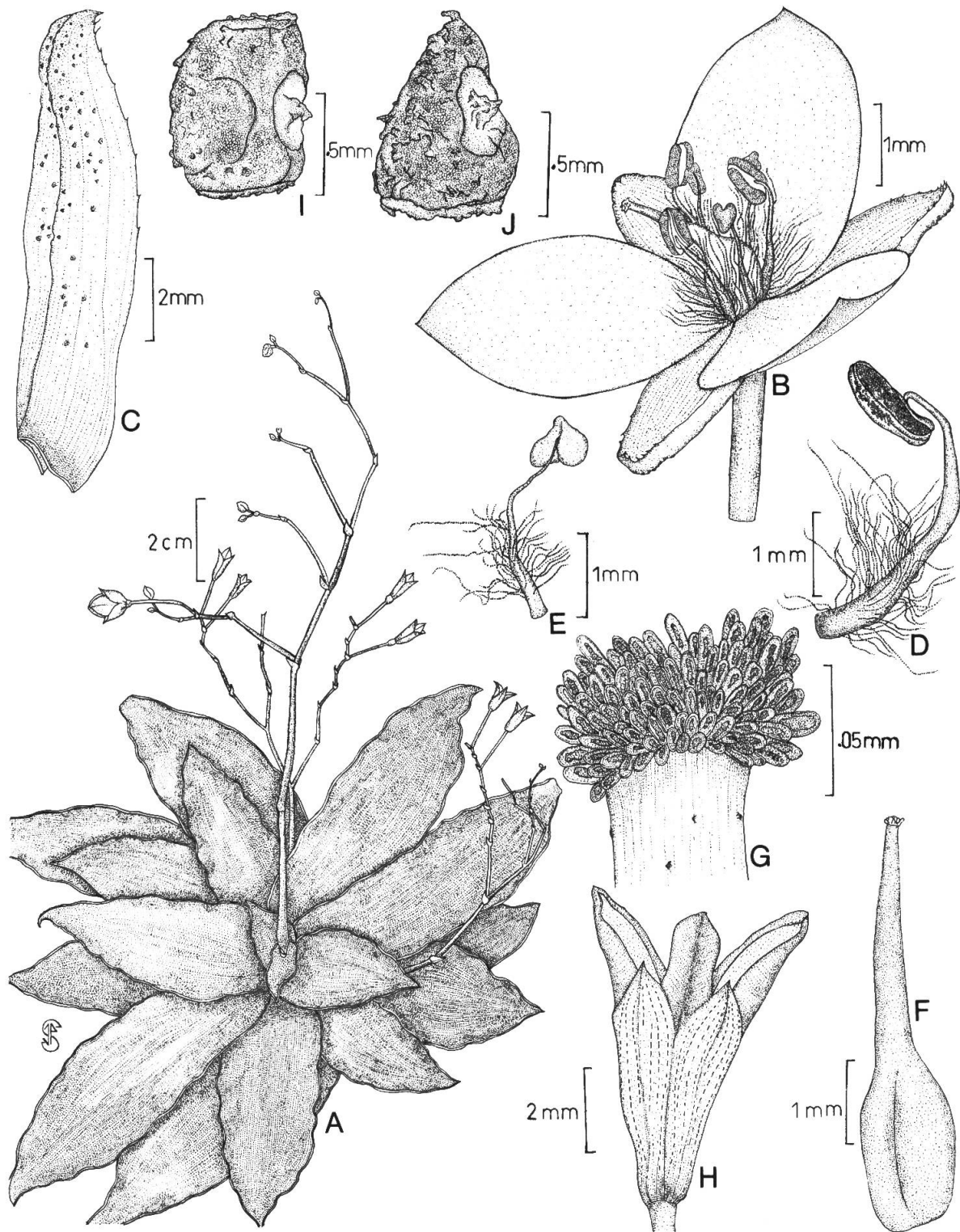


Fig. 1. – *Murdannia fadeniana* Nampy & Joby. A, Habit; B, Flower; C, Sepal; D, Fertile Stamen; E, Sterile Stamen; F, Pistil; G, Stigma; H, Dehisced Capsule; I–J, Seed. [Joby 459] (illustrations by Paul Joby).

surface glabrous, pale green to purple in old leaves; both surfaces glaucous. Inflorescence terminal and apparently lateral, scapose, up to 17 cm long, thyriform; peduncle purple, glabrous; bracts small, leafy, up to 8 mm long, apex pale green; bracteoles small, base amplexicaul, apex pale green, persistent. Flowers pedicellate; pedicel up to 1.3 cm long, glabrous; sepals 3, boat-shaped, 4 mm long, persistent, pinkish-white, apex pale green with minute papillose projections in bud; petals 3, ovate-lanceolate, 6 × 5 mm, pale purple to white, entire, apex acute. Fertile stamens 3, filament 3.75 mm long, bearded basally to medially, anther pale blue, bilobed, connective white, pollen white; sterile stamens (staminodes) 3, filament 2.5 mm long, bearded basally, antherode yellow, hastate; hairs pale blue. Ovary 2 mm long, glabrous; style 3 mm long with minute papillose projections; stigma white, capitate with long papillose projections. Capsule oblong, 8 × 3 mm, trilocular, glabrous, fruiting calyx persistent, not exceeding the capsule, with white dotted lines when dry. Seeds biseriate, 10-16 per locule, 1.5 × 0.5 mm, gray to black, triangular to rectangular in dorsal view, smooth to minutely reticulate, with white material along the margins and surface, hilum ventral, punctiform to elliptic, dark coloured, embryotega dorsal.

Paratypes. – **INDIA.** Kerala, Kottayam District, Vagamon hills, 900 m alt., 18.VII.2002, *Joby 459* (SJC); Thiruvananthapuram District, Athirumala, ca. 1000-1200 m alt., 12.X.1988, *Mohanam 4223* (CALI); Forest near Bonacaud estate, *Joseph 44521* (MH). Tamil Nadu, Kattabomman District, Kallar, *Gopalan 90690*, Thinnaveli hills, *Beddome 85605* (MH).

Etymology. – The species is named after Dr. Robert B. Faden, Smithsonian Institution, Washington D.C., USA, in appreciation of his contribution to *Commelinaceae* systematics.

Flowering and fruiting. – July - December.

Flowering time. – 8.30 am - 2.00 pm.

Ecology. – Extremely rare, on moist rocks in stream banks.

Notes. – *Murdannia fadeniana* is closely allied to *M. glauca* (Thwaites ex C. B. Clarke) G. Brückn. in having a rosette perennial habit, thin roots and a scapose inflorescence but differs by having 10 to 16 seeds biserially arranged in each locule of the capsule and possessing 3 staminodes, as opposed to 5 to 8 seeds uniserially arranged in each locule and 2 staminodes in *M. glauca*.

The specimens belonging to *M. fadeniana* were previously collected from India but wrongly identified as *M. glauca* (HOOKER, 1892, 1898; FISCHER, 1931; MOHANAN & HENRY, 1994). *Murdannia glauca* (= *Aneilema glaucum* C. B. Clarke) was first described by CLARKE (1881) with the diagnosis “*fere glabra [...] stamina 3 fertilia [...] 2 rudimentaria [...] semina in unoquoque loculo 5-8, uniseriata, [...]*” based on *Thwaites 3977* from Sri Lanka. Since then, this species has not been collected from anywhere else (FADEN, pers. comm. dated 1 August 2002). However, HOOKER (1892, 1898), FISCHER (1931) and MOHANAN & HENRY (1994) wrongly attributed the name *M. glauca* to the south Indian specimens. We have consulted the specimens labelled as *M. glauca* available at MH and CALI and found that they all are unique in having three staminodes and capsule with biserially arranged seeds. Our observations based on live specimens collected from the Western Ghats also corroborate this. Possibly, Hooker, Fischer and Mohanan & Henry may not have critically studied these specimens with respect to the number of staminodes, and fruit characters. Hooker even admitted that most of the specific characters were taken from Clarke’s monograph on *Commelinaceae* (CLARKE, 1881). FADEN (2000) also has commented that “only two staminodes were reported in Hook. f. Fl. Brit. Ind. and Trimen’s Hand. Fl. Ceylon. In the single specimen on which I could check this character (Beddome s.n. from Thinnevelly Hills, India (BM)), there are three staminodes in the one bud dissected. That specimen also had biseriate seeds (unlike the Sri Lankan collection), [...]”.

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