

Lectotypifications in *Flemingia* (Leguminosae)

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Abstract

Flemingia fluminalis C.B. Clarke ex Prain, *F. nana* Roxb. ex W.T. Aiton, *F. procumbens* Roxb. and *F. semialata* Roxb. ex W.T. Aiton are lectotypified here.

Keywords: *Flemingia*, Lectotype, Roxburgh Drawing, Wallich Catalogue

Introduction

The generic name *Flemingia* Roxb. ex W.T. Aiton was validly published in Hortus Kewensis that listed six species (Aiton, 1812). In the Indian context, Roxburgh (1832) was the first to describe eight species in his Flora Indica. Baker (1876) enumerated 11 species and 8 varieties in the Flora of British India. Prain (1897) reported 18 species and 3 varieties from Indian subcontinent. Mukerjee (1953) in his consolidated account of the genus (under the name *Moghania* J. St.-Hil.) for India and Burma reported 26 species and 7 varieties.

Presently, the genus is represented by 30–35 species in the world (Lewis *et al.*, 2005) and 17 species and 1 variety in India (Sanjappa, 1992). The present paper is part of the systematic studies on the genus *Flemingia* in India (Lekhak *et al.*, 2011; Gavade & Lekhak, 2015), where the lectotype for the following four names, *F. fluminalis* C.B. Clarke ex Prain, *F. nana* Roxb. ex W.T. Aiton, *F. procumbens* Roxb. and *F. semialata* Roxb. ex W.T. Aiton are designated in accordance with the ICN (McNeill *et al.*, 2012) after having consulted the original specimens at BM, BR, CAL, E, G, K and OXF.

Lectotypifications

Flemingia fluminalis C.B. Clarke ex Prain, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 66: 438. 1897.

Lectotype (designated here): BANGLADESH, Chittagong, Demagri, 8.2.1873, C.B. Clarke 19777c (CAL0000012301!) **Fig. 1a**

Prain (1897) listed five collections in the protologue, they are: CHITTAGONG: Demagri, Clarke

n. 19777; Burkul, *Lister* n. 117; BURMA: Hukong valley, *Griffith* n. 1675; Pegu, *Kurz* n. 2524; Shan plateau at Makhoye, *King's Collector* s.n. Of these, we select the specimen (CAL0000012301!) from Demagri, Chittagong collected by C.B. Clarke as the lectotype, because it matches well with the protologue.

Flemingia nana Roxb. ex W.T. Aiton, Hort. Kew., ed. 2, 4: 350. 1812.

Lectotype (designated here): Flowering specimen in Roxburgh drawing No. 1622 (K!) [<http://apps.kew.org/floraindica/home.do>] **Fig. 1b**

Flemingia nana was validly published by Aiton (1812). A search of type specimen in herbaria revealed the presence of only one specimen, Wallich, Numer. List No. 5748a at K, collected by Roxburgh (Wallich, 1831–32) bearing the label in Roxburgh's handwriting as "*Hedysarum brevis*". However, this sheet bears only a stem with many fruits and lacks the long-petiole and obovate middle leaflet characteristic of *F. nana*. Hence, the identity of this specimen is ambiguous. Roxburgh's drawing number 1622 from Flora Indica has been designated here as the lectotype as it depicts the diagnostic characters of the species mentioned in the protologue "dwarf shrubby habit, leaves with winged petiole, middle leaflet obovate, racemes in cluster, legume glandular and viscous".

Flemingia procumbens Roxb., [Hort. Bengal.: 56. 1814, nom. nud.] Fl. Ind. 3: 338. 1832.

Lectotype (designated here): Flowering specimen in Roxburgh drawing No. 1893 (K!) [<http://apps.kew.org/floraindica/home.do>] **Fig. 1c**



Fig. 1. Lectotypes of: a. *Flemingia fluminalis* C.B. Clarke ex Prain (C.B. Clarke 19777c, CAL000012301); b. *F. nana* Roxb. ex W.T. Aiton (Flowering specimen in Roxburgh drawing No. 1622 [K]); c. *F. procumbens* Roxb. (Flowering specimen in Roxburgh drawing No. 1893 [K]); d. *F. semialata* Roxb. ex W.T. Aiton (W. Roxburgh s.n., K001121982).

Flemingia procumbens was described by Roxburgh (1832). We could not trace any original specimens of Roxburgh, however, flowering specimen in Roxburgh's drawing number 1893 from Flora Indica, matches well with characters mentioned in the protologue, hence the illustration has been designated here as the lectotype.

Flemingia semialata Roxb. ex W.T. Aiton, Hort. Kew., ed. 2, 4: 349. 1812.

Lectotype (designated here): INDIA, *s.die*, W. Roxburgh s.n. (K001121982, image!); Isolectotype (BR0000005172993, image!) **Fig. 1d**

Flemingia semialata was grown in the Calcutta Botanic Garden from the seeds sent by Dr. Buchanan from Nepal (Roxburgh, 1832). Roxburgh's understanding of this species was based on the specimens grown in the Garden (Roxburgh, 1832). A search for the type at relevant herbaria led to the finding of four specimens in different herbaria, namely at BR (BR0000005172993!), K in the Wallich Herbarium (K001121982!) and OXF (OXF00006050!, OXF00 006051!). The specimen at BR was purchased by Martius, the founder of Flora Brasiliensis, from Linnean Society of London in 1863 (Forman, 1997). The specimen at K (K-W) (K001121982!) bearing the Wallich's Catalogue No. 5746a, was collected by Roxburgh (Wallich, 1831–32). The other two specimens at OXF also bear a stamp as 'Roxburgh', but the annotations are not by Roxburgh. Hence, they have not been considered as parts of original material. Among the two specimens, the specimen with annotation "*Hedysarum semialatum*, a new species from Napaul" by the original author has been chosen as the lectotype. The specimen at BR (BR0000005172993!) is designated as the isolectotype.

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