

Occurrence of *Ficus fulva* Reinwardt ex Blume (Moraceae) in Senapati district: a new distributional record for the state of Manipur, India

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[Received 30.05.2016; Revised 09.06.2016; Accepted 12.06.2016; Published 30.06.2016]

Abstract

Ficus fulva Reinwardt ex Blume (Moraceae) has been presented as a new distributional record for the state of Manipur in Northeast India. With the present record, Manipur flora is now known to have 16 species of the genus *Ficus* Linnaeus.

Key words: *Ficus fulva*, New record, Manipur, Senapati district

INTRODUCTION

Species of the genus *Ficus* Linnaeus (Moraceae) are commonly known as 'figs'. It is the largest genus of the family predominantly distributed in the tropical and sub-tropical regions (Buragohain *et al.* 2012). *Ficus* is considered as one of the most diversified genera with regard to its habit (deciduous and evergreen trees, shrubs, herbs, climbers and creepers) and life-forms as free standing tree, epiphytes, semi epiphytes in the crevices, halophytes and lithophytes (Chaudhary *et al.* 2012). The flowers of this genus are minute, unisexual. On the inner walls of a fleshy receptacle having a minute pore, ostiole, the mouth of which is enclosed by imbricate bracts, flowers often mixed with bracteoles. (King 1888).

The genus comprises about 750 species and distributed throughout the world (Berg 1989; Berg & Corner 2005; Ronsted *et al.* 2008). King (1888) gave the first systematic account of the Indian *Ficus* Linnaeus and recorded 113 species and 47 infraspecific taxa from whole of British India. Recently Chaudhary *et al.* (2012) published a check list of 115 taxa of *Ficus* in India including *F. fulva* Reinwardt ex Blume. Deb (1961) reported 15 species of *Ficus* (*F. benghalensis* Linnaeus, *F. clavata* Wallich ex Miquel, *F. clavata* Wallich var. *trachycarpa* Miquel, *F. cunea* Buch.-Hamilton, *F. drupacea* Thunberg, *F. elastica* Roxburgh, *F. glomerata* Roxburgh, *F. heterophylla* Linnaeus, *F. hirta* Vahl, *F. hispida* Linnaeus, *F. lacor* Buch.-Hamilton, *F. obtusifolia* Roxburgh, *F. racemosa* Linnaeus, *F. religiosa* Linnaeus, and *F. silhetensis* Miquel) from Manipur.

During floristic survey (September 2012 to May 2015) in Senapati district (24°38' N - 25°91' N and 93°45' - 94°29' E) of Manipur, a good number of vascular plants was collected including an interesting specimen of *Ficus*. After consultation with available literatures and by comparing herbarium specimens at ASSAM it is identified as *Ficus fulva* Reinwardt

ex Blume. The voucher specimen is deposited in the Herbarium of Department of Ecology and Environmental Science, Assam University, Silchar. Detailed taxonomical account, ecology, distribution and photographs (PLATE I) are provided here for easy identification. This is now reported here as an addition to the flora of Manipur state.

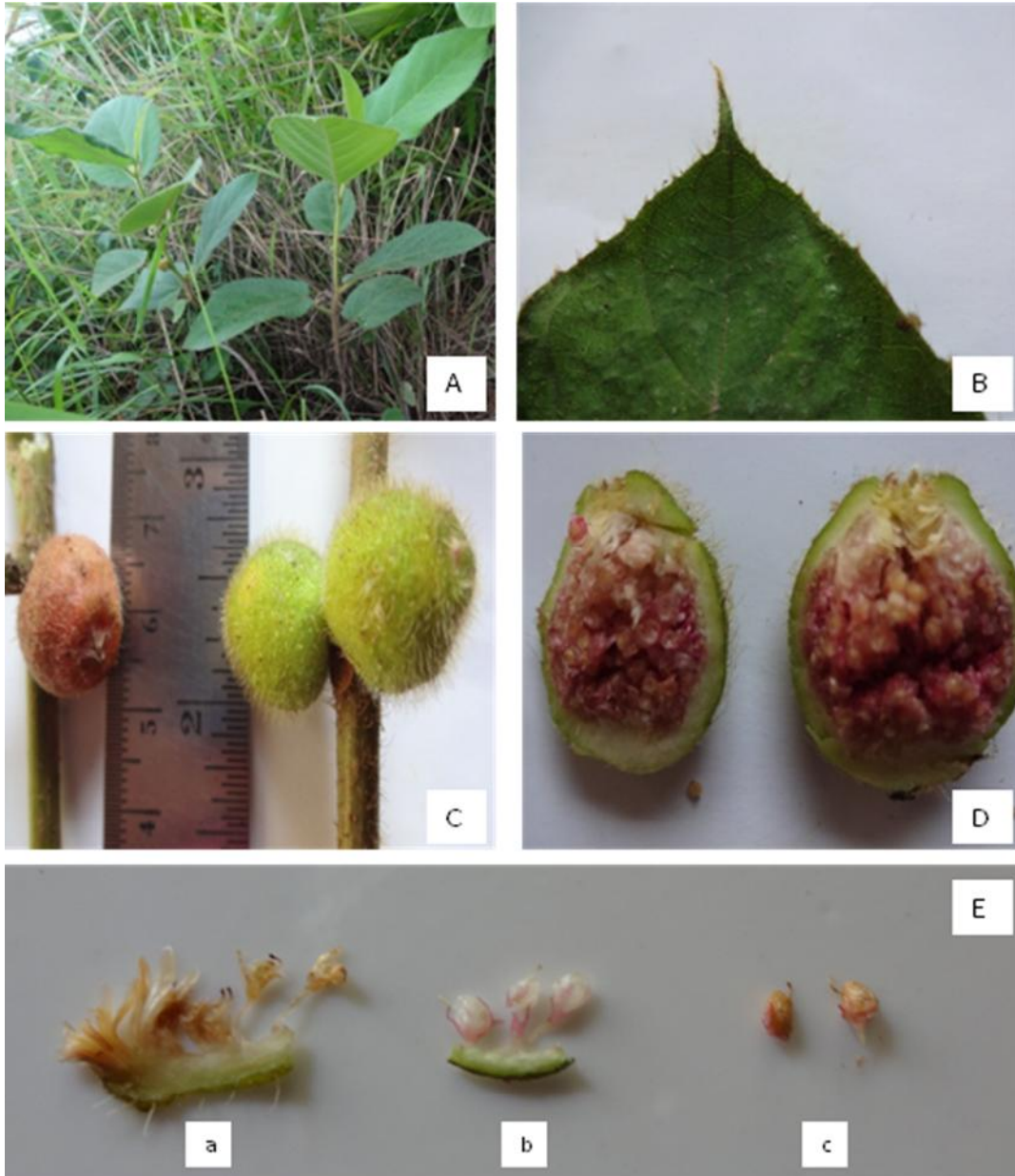


PLATE - I. *Ficus fulva* Reinwardt & Blume: **A.** Plant in the habitat; **B.** Upper part of lamina; **C.** Hypanthodia (mature and young); **D.** Longitudinally splitted receptacle; **E.** (a) Flowers and bracts; (b) Gall flower (left) and female flower (right); (c) Mature gall and female flowers

Taxonomical treatment

Ficus fulva Reinwardt ex Blume, Bijdr. Fl. Ned. Ind. 478. 1825 ; King, Ann. Roy. Bot. Gard. (Calcutta) 1: 148, t.187. 1888 & in Hooker f., Fl. Brit. India, 5: 531. 1888; Brandis, Indian Trees 607. 1906; Berg & Corner in Noteboom, Fl. Malesiana 17(2): 106. 2005; Chaudhary *et al.* in *Taiwania* 57(2): 196. 2012. [PLATE-I]

Small tree upto 3 m tall and 0.6-0.8 cm in diameter; aerial roots absent; young shoot pubescent, latex milky; internode solid; leaves alternate; petiole 5-5.5cm long, pubescent; lamina ovate, 15.5 – 22 x 9.2 – 13.4 cm, serrate, base cordate, apex acuminate and hispidulous, unicostate, basal lateral veins 6, hairy (4 mm long); stipule single, caducous, ovate-lanceolate, 1.5cm long, hairy; basal bracts-4, 5-8mm long, persistent; peduncle almost absent or sessile; figs axillary on normal leafy shoots, paired, sub-globular, 1.5 – 2 cm in diam., 2.5 cm long, tomentose, green, yellow when ripe, apical pore small, navel like; male flowers small, 1.5 – 2 mm long, near the ostiole, tepals-4, free, stamen-1, narrowly oblong-lanceolate; female flowers pedicelled, numerous, 1.3 mm long, tepals basally connate, style lateral, ovary ovoid, smooth; gall flower sessile smaller than female flowers, tepals fused; achenes obovoid, 2.1 mm in diam., smooth.

Flowers & Fruits: June – October.

Ecology: Sub-tropical mixed forest, few populations mostly on moist shady hill slopes.

Distribution: India (Andaman and Nicobar Islands, Meghalaya, Mizoram, Manipur), China, Indochina, Malaysia, Myanmar, Thailand, S. Yunnan province China.

Specimen examined: Tharon village, 890 m, N-24°52', E-093°48'. 12.07.2014, *Th. Sunita* 0537 (Assam Univ, Silchar).

Acknowledgements

Authors are grateful to the Principal Chief Conservator of Forest, Forest Department, Government of Manipur for giving permission to survey the flora inside Senapati district and the inhabitants of the district for their co-operation during our visits. The authors are also thankful to the Officer-in-Charge BSI, Shillong for providing facilities to consult the herbarium.

LITERATURE CITED

- Berg, C.C. 1989. Classification and distribution of *Ficus*. *Experientia* 45: 605 – 611.
- Berg, C.C. & Corner, E.J.H. 2005. Moraceae: *Ficus*. *Flora Malesiana*. Ser.1. 17(2). National Herbarium Netherland, R .A. Leiden, P. 1 – 730.
- Brandis, D. 1906. *Indian Trees*; an account of trees, shrubs, woody climbers, bamboos and palms indigenous commonly cultivated in the British Indian empire, Reprinted by: International Book Distributors, Dehra Dun, India. pp 607.
- Buragohain, R.; Gajurel, P.R.; Rethy, P. & Singh, B. 2012. *Ficus conglobata* king: A rare and lesser known species from Arunachal Pradesh, N.E. India. *Pleione* 6 (2): 415 – 419.
- Chaudhary, L.B.; Sudhakar, J.V.; Kumar, A.; Bajpai, O.; Tiwari, R. & Murthi, G.V.S. 2012. Synopsis of the Genus *Ficus* L. (Moraceae) in India. *Taiwania* 57(2): 193 – 216.
- Deb, D.B. 1961. Dicotyledonous plants of Manipur Territory. *Bull. Bot. Surv. India* 3 (3&4): 253 – 350.
- King, G. 1888. *Ficus* L. In: Hooker, J. D. (ED.), *Flora of British India*. Vol. 5. L. Reeve & Co., Ashford, Kent, London. Pp. 494 – 537.
- Ronsted, N.; Weiblen, G.D.; Clement, W.; Zerega, N. & Savolainen, V. 2008. Reconstructing the phylogeny of figs (*Ficus*, Moraceae) to unravel the origin of fig-wasp mutualisms. *Symbiosis* 45: 45 – 56.