

***Mitracarpus hirtus* (Linnaeus) A.P. de Candolle [Rubiaceae] – a new record of occurrence for Assam, India**

Karuna Kanta Das

Department of Botany, Dakshin Kamrup College, Mirza, 781125, Assam, India
E-mail: kd_dkc@rediffmail.com

[Received 30.04.2015; Revised 22.05.2015; Accepted 23.05.2015; Published 30.06.2015]

Abstract

Mitracarpus hirtus (Linnaeus) A.P. de Candolle (Rubiaceae) is collected from both Kamrup district (Metro) & Kamrup district, Assam and is reported as new record for the State. A detailed description along with a colour photographs of the species is provided for easy identification in the field.

Key words: *Mitracarpus hirtus*, new record, Assam

INTRODUCTION

During a field exploration in different localities of both Kamrup district (Metro) and Kamrup district of Assam, an interesting species of *Mitracarpus* Zuccarini was collected. After critical studies and survey of literature (Subudhi & Mitra 2002; <http://www.efloras.org/>; <http://www.plantillustrations.org>) and expert opinion, this plant has been identified as *Mitracarpus hirtus* (Linnaeus) A.P. de Candolle. Scrutiny of relevant literature (Kanjilal *et al* 1939; Baruah 1992; Chowdhury 2005; Barbhuiya *et al* 2014; Barooah & Ahmed 2014) revealed that the species has not so far been reported from Assam.

The taxonomic description, photographs along with phenology and other relevant information on the species are provided here.

The voucher specimen was matched with the Kew herbarium catalogue – online database (<http://www.kew.org/herbcat,2006>); specimen number of matched sheet is K000174502. The specimen will be deposited in the Herbarium of Botany Department, Gauhati (GUBH) and in the herbarium of the D.K. College, Mirza.

TAXONOMIC TREATMENT

Mitracarpus hirtus (Linnaeus) A.P. de Candolle, Prodr. 4: 572. 1830. *Spermacoce hirta* Linnaeus, Sp. Pl. ed. 2, 1: 148. 1762; *Spermacoce villosa* Swartz, Nov. Gen. & Sp. Prod. 29. 1788. *Mitracarpus villosus* (Swartz) A.P. de Candolle, Prodr. 4: 572. 1830; Saxena *et* Brahmam, Fl. Orissa 2: 852. 1995. *Mitracarpus verticillatus* (Schumacher & Thonning) Vatke in Linnaea 40: 196. 1876. Manilal *et* Sivarajan, Fl. Calicut 134. 1982 [Rubiaceae]. *Staurospermum verticillatum* Schumacher & Thonning, Beskr. Guin. Pl. 73. 1827. Erect or spreading annual herb. Stem branched, 4-angled, pubescent. Sometimes becoming woody in lower part. Leaves sessile; lamina ovate-lanceolate, 2.0-4.5 x 0.8-1.5cm, adaxially scaberulous, abaxially glabrous except puberulent along veins and usually scabrid near margins,

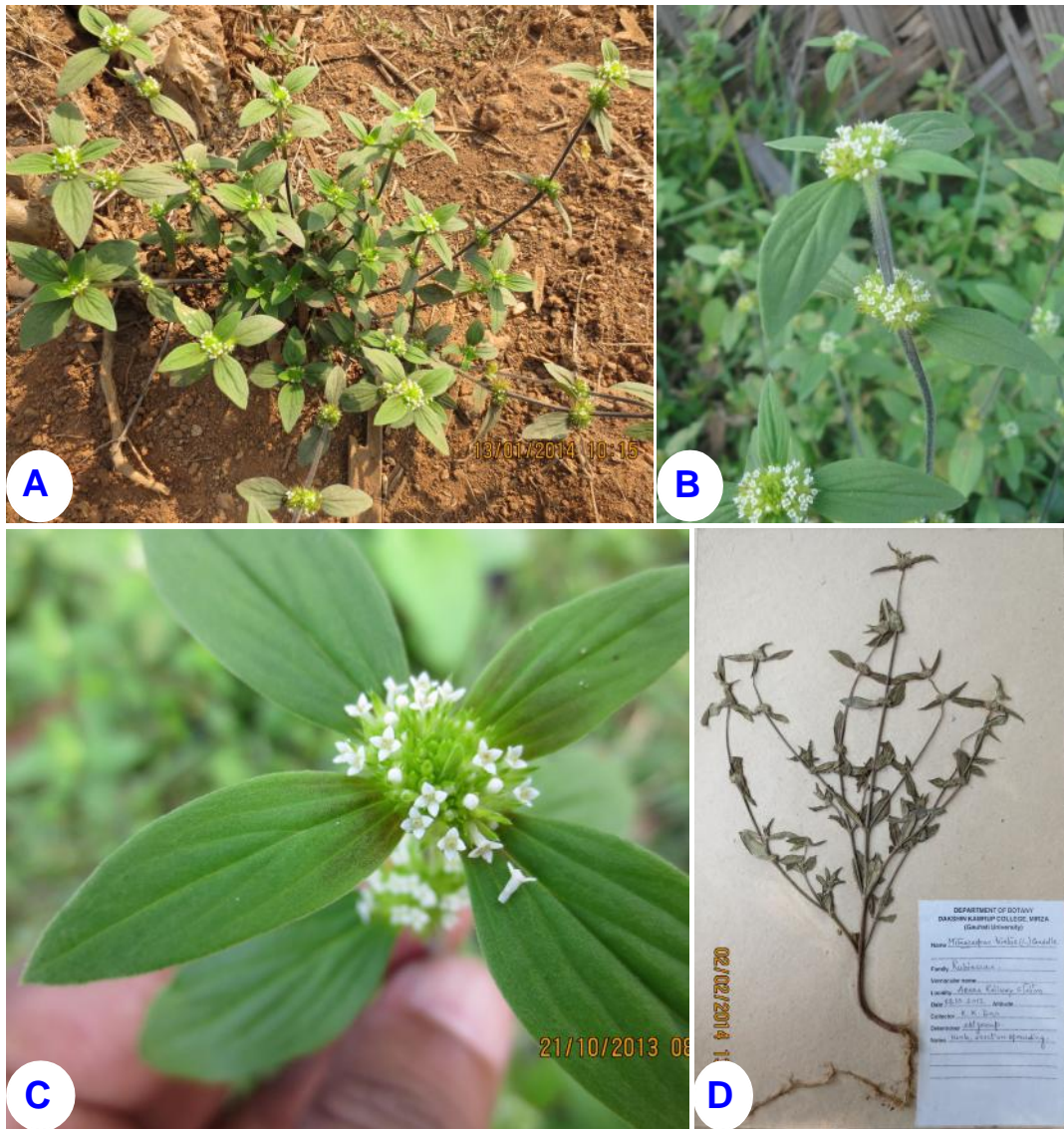


PLATE I. *Mitracarpus hirtus* (Linnaeus) A.P. de Candolle: **A.** The plant in the habitat; **B.** A flowering twig; **C.** Inflorescence subtended by leaves; **D.** Mounted voucher specimen

acute, cuneate at base; secondary veins 3-5 pairs; stipules broad, 1-3 mm, with 5-10 setae, 1-5 mm long with ciliate margin. Verticillaster subglobose, 1-2 cm in diameter (not including subtending leaves), present at least all upper nodes and terminally; minute filiform bracteoles present between the (sub-)sessile flowers. Flowers sessile or nearly so, 1 - 4 mm long; hypanthium 1 - 1.4 mm long. Calyx unequally 4-lobed, 2 larger, oblong-lanceolate, with hyaline margins, 1.3-2.3 (-3) mm long, 2 smaller, narrowly triangular, 0.5-2 mm long, ciliate. Corolla white, glabrous outside; tube 1-1.5 mm; lobes triangular to ovate, 0.5-1 mm, obtuse to acute. Stamens 4, minute, barely exerted from corolla tube; anthers sessile. Gynoecium 2.5 mm -3 mm, bicarpellary; ovary 2 celled, 1 mm long; style 1-1.5 mm long; stigma bifid, linear, up to 0.5mm long. Capsules subglobose, circumscissile. Seeds, minute, pale yellowish brown, ellipsoid - rectangular, compressed, on ventral (i.e. adaxial) face with cruciform scar.

Flower & Fruiting: August - January

Distribution: Native to the Antilles and Central, North, and South America; naturalized in tropical Africa, Asia, Australia, and Pacific islands. In India it is recorded from Tamil Nadu, Karnataka, N. Bengal, Kerala, Andhra Pradesh, Rajasthan, Arunachal Pradesh and Assam.

Exsiccatae: India: Assam, Kamrup district (Metro), Azara Railway station, *K.K. Das 219*, dated 28.10.2012 & GNRC Medical Campus, North Guwahati *K.K. Das 705*, dated 31.08.2014

Notes: Sometimes *Mitracarpus hirtus* (Linnaeus) A.P. de Candolle may be confused with some species of *Spermacoce* Linnaeus or *Hedyotis* Linnaeus, but it is easily distinguishable from these two by having capsules whose top half comes off like a lid.

Acknowledgements

The author is grateful to University Grants Commission for financial assistance. He is also thankful to the efloraofindia google group for providing a platform for identification and discussion on Indian flora.

LITERATURE CITED

- Barbhuiya, H.A.; Dutta B.K.; Das A.K. & Baishya A.K. 2014. The family Rubiaceae in southern Assam with special reference to endemic and rediscovered plant taxa. *J. Threat. Taxa* | www.threatenedtaxa.org 6(4): 5649 – 5659
- Barooah, C. & Ahmed, I. 2014. *Plant diversity of Assam: A checklist of Angiosperms & Gymnosperms*. Assam Science Technology and Environment Council, Guwahati.
- Barua, I.C. 1992. *Systematic studies of the angiosperms of Kamrup District, Assam*, Ph.D. Thesis, Gauhati University. (Unpublished).
- Chowdhury, S. 2005. *Assam's flora (Present Status of Vascular Plants)*. Assam Science Technology and Environment Council, Guwahati.
- <http://www.efloras.org/>
- <http://www.kew.org/herbcat> : *The Herbarium Catalogue*. 2006
- Kanjilal, U.N.; Das, A. & Kanjilal, P.C. 1939. *Flora of Assam* Vol. III. Govt. of Assam, Shillong.
- Subudhi, H.N. & Mitra, J. 2002. *Mitracarpus villosus* (SW.) DC. A new record for Rajasthan. *J. Econ. Taxon. Bot.* 26(1): 193 – 194.
- www.plantillustrations.org (file:///I:/Already%20sent%20photos%20to%20efl%20site%20-%202012/ Rubiaceae/Mitracarpus%20hirtus%20(L.)%20DC/illustration.php%20(Diagram%20of%20M.%20hirtus).htm)