***Dioscorea hispida* Dennst. (Dioscoreaceae) : a new addition to the state flora of Manipur, India**

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Abstract

Dioscorea hispida Dennst. (Dioscoreaceae) has been collected from the Imphal West district of Manipur, India. The taxon has identified as a new record to the flora of Manipur state. The ecology, associated flora and illustrations have been provided for easy identification in the field.

Key words: *Dioscorea hispida*, New record, Manipur flora, Associated species, ecology

INTRODUCTION

The state of Manipur, commonly known as “Jewel of India”, is lying between 23° 80' N to 25° 68' N Latitudes and 93° 03' E to 94° 78' E Longitudes. It is one of the flora-rich eight states of North Eastern India. The 90% of the total area of the state is occupied by hilly regions which provides suitable platform for wild tuberous plants like many species of *Dioscorea*, *Cheilocostus*, *Curculigo*, *Solena*, *Amorphophallus*, *Alocasia* etc. During the survey of floral wealth of Manipur, authors found a species of *Dioscorea* L. (Dioscoreaceae) at the Imphal West district. After morphological analysis and literature survey (Majumder *et al.* 2009) it was identified as *D. hispida* Dennst., which is yet to be recorded for flora of Manipur. *Dioscorea* L. is a monocotyledonous genus of tuberous herbaceous climbers, twinning to 20 m or more with suitable support. The genus comprises about 600 species distributed all over the world, especially in tropical and subtropical regions (Trimanto & Hapsari 2015). Out of these, about 91 species are reported from North-Eastern part of India. Among those 30 species from Arunachal Pradesh, 19 species from Assam, 16 species from Meghalaya, 12 species from Sikkim, 10 species from Tripura and 4 species from Manipur (Saikia *et al.* 2011; Goswami *et al.* 2013; Pradhan *et al.* 2015; Paul *et al.* 2017; Kumar *et al.* 2017). The present record of the occurrence of *D. hispida* in Manipur showed its distribution up to Manipur-Myanmar boarder within the Indo-Burma Biodiversity Hotspot area in India.

Taxonomic treatment

Dioscorea hispida Dennst., Schlüssel Hortus Malab. 33. 1818; Gamble, Fl. Madras 3: 1511(1055). 1928; Prain & Burkill, Ann Roy. Gard. (Culcutta) 14(1): 188t. t.77. 1936; Burkill in Steenis, Fl. Males. 1.4: 318. 1951. *D. daemona* Roxb., Fl. Ind. 3: 805. 1832; Wight, Icon. t. 811. 1844; Hook. f. in Fl. Brit. India 6: 289. 1892; Prain, Bengal Pl. 2: 1066. 1903; Haines, Bot. Bihar & Orissa, parts V - VI: 1123. 1924. [Dioscoreaceae]. [PLATE – I]

PLATE I. *Dioscorea hispida*: Vegetative parts. (a) Whole plant, (b) Tuber (c) Leaf and Inflorescence , (d) Twig

Strong geophytic twiner; stem twining to the left, prickly, tomentose when young; tubers subglobose or irregular, up to 38 cm in diam., covered with many fibrous-roots. Leaves 3-foliolate; petioles 6 – 35cm long, prickly, glabrous or finely pubescent; leaflets 6.2 – 33.5 x 3.5 – 15 cm, the terminal one elliptic, entire, caudate-acuminate, 3 – 5-costate, base tapering;

lateral leaflets much oblique, shortly 2-lobed, gibbous, broader than long; petiolules 2 – 19 mm long. Male flowers in dense, short, narrowly oblong axillary spikes, 6 – 8 mm long; panicles pubescent, prickly, 15 – 26 cm long; rachis pubescent or villous; bracts of flowers small, orbicular, 1 – 1.6 mm diam., concave, pubescent; inner perianth lobes oblong-obovate; anthers 6, perfect, minute; female spikes 2-nate, simple, pubescent or tomentose. Capsules quadrately oblong, 3.5 – 5.8 x 1.5 – 3.1 cm, truncately rounded, smooth. Seeds winged at the base.

Flowering: June – August; *Fruiting*: August – September

Specimen examined: INDIA: Manipur, Imphal West district, N 24° 88' 69.33" and E 93° 90' 69.33", S Kumar - APRFH-M08, dated 19.05.2018.

Habitat & Ecology: *D. hispida* is found in regions where temperature is moderate and found to be grown in association with *Dioscorea bulbifera* L., *Cissampelos pareira* L., *Celastrus paniculatus* Willd., *Lygodium flexuosum* (L.) Sw., *Melastoma malabathricum* L., *Dioscorea pubera* Blume, *Mikania micrantha* Kunth, *Azadirachta indica* A.Juss., *Elephantopus scaber* L., *Tinospora sinensis* (Lour.) Merr., etc.

Conservation status: The present scenario of the plant shows no threats but there is possibility of threats in future due to current trend of massive deforestation and drastic climate changes over the entire region.

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