NEW RECORD

***Astraea lobata* (L.) Klotzsch [Euphorbiaceae]: a new record for Eastern India from Darjeeling Terai**

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Abstract

Astraea lobata (L.) Klotzsch [Euphorbiaceae] is recorded for the first time from West Bengal in Eastern India. It occurred in the roadside area of Siliguri subdivision of Darjeeling district. A detailed description with illustration of the species is provided here.

Key words: *Astraea lobata*, New Record, West Bengal

INTRODUCTION

The genus *Astraea*, having eight accepted species, is a native of South America and West Indies (www.thelantlist.org, Version 1.1 2013). *Astraea lobata* (L.) Klotzsch is the only species to be found throughout the Neotropical region and introduced in Africa and Yemen. Though it is native to South America and West Indies, Khan & Khan (2002) reported this species from Bangladesh. Gaikwad *et al.* (2012) reported it from Sholapur district of Maharashtra, India for the first time and Das *et al.* (2016) from Tripura.

During a survey of the road side flora of Darjeeling district, a population of about 12 individuals of *Astraea lobata* was found near North Bengal University (26°42'9.83" N & 88°21'05.0" E) in flowering and fruiting condition. After critical examination and scrutiny of relevant literatures (Chakrabarty & Balakrishnan 1997; Webster 1993; Govaerts *et al.* 2000; Khan & Khan 2002; Balakrishnan & Chakrabarty 2007; Schmelzer 2007; Gaikwad *et al.* 2012; Das *et al.* 2016) the plant was identified as *Astraea lobata* (L.) Klotzsch. Its occurrence in this locality reports a new distributional record for West Bengal and also for the first time from Eastern India. A detailed description with suitable photographs is provided to facilitate its identification.

TAXONOMIC TREATMENT

Astraea lobata (L.) Klotzsch, Arch. Naturgesch. (Berlin) 7: 194. 1841; Das *et al.* Pleione 10(2): 392 – 395. 2016. *Croton lobatus* L., Sp. Pl. 2: 1005. 1753 “*lobatum*”; Vell., Fl. Flumin. 10: t. 70. 1831.

Monoecious annual herb, upto 80 cm high; stem terete, ribbed, branched, stellate-hairy with 1 or 2 branches longer and erect. Leaves simple, alternate; lamina 2.5 – 11 cm long, deeply 3 – 5 lobed; lobes oblanceolate to obovate, crenate-serrate with glandular tips, acuminate, 3 – 5 nerved at base, sparsely stellate-hairy; basal glands present; petioles 2.5 – 15 cm long; stipules free lateral, filiform to subulate, c. 1 mm, glandular hairy. Racemes mainly terminal

PLATE - I. *Astrea lobata* (L.) Klotzsch: **A.** Plant in the habitat; **B.** Flowering twig; **C.** Leaf; **D.** Stellate hair on stem surface with 1 or 2 arms much elongated and straight; **E.** Male flowers with basal subulate bract; **F.** Young female flower (opening bud); **G.** Bract of female flower; **H.** Inflorescence with young fruits; **I.** Well developed 3-lobed fruit; **J.** Seed with caruncle; **K.** Mature seed after dehiscing of fruit.

or axillary, up to 12.5 cm long, slender; female flowers 4-5 near the base; male flowers in upper half in cymose clusters. Flowers unisexual, 5-merous, regular, yellowish green; *Male flowers*: Bracts filiform, c. 1 mm, dichlamydeous, buds globose; pedicels slender, 1 – 2 mm long; Sepals ovate-elliptic, c. 1 mm long, obtuse; Petals slightly shorter than sepals, obovate-elliptic, obtuse; Stamens 10 – 13, basally connate, inflexed in bud; filaments 1 – 2 mm; anthers c. 0.5 mm long, 2-celled, dehiscence longitudinally. *Female flowers*: Bracts c. 1 mm,

glandular hairy, linear – lanceolate; Pedicels stout, c. 1 mm; monochlamydeous; Bracts of female flowers longer subulate with broader base, for males smaller and subulate; Tepals 5, basally connate, green, persistent; lobes linear-lanceolate, c. 5 mm long, dentate and glandular, margins hairy; Ovary stellate-hairy, 3-lobed, c. 5 mm; styles 3, 2 – 4 mm long; each deeply 2 – 5 fid, reddish. Capsules ovoid-oblong, c. 7 mm in diameter, sparsely stellate-hairy, 3-lobed. Seeds 3, ellipsoid, c. 6×3 mm, roughly 4-ribbed, truncate at base, prominently carunculate, verrucose, ash-coloured with brown spots; caruncle conical, white.

Flowering & Fruiting: June – February

Specimens examined: West Bengal, Siliguri, K. Biswas & C. Ghosh SLG-1217, dated 25.08.2019 (CAL, Lloyd Botanical Garden, DGC Herbarium)

Habitat: Growing on roadsides in low herbaceous vegetation along with *Parthenium hysterophorus* L., *Amaranthus spinosus* L., *Amaranthus viridis* L., *Chrysopogon aciculatus* (Retz.) Trin., *Croton bonplandianus* Baill., *Sida acuta* Burm.f., *Cynodon dactylon* (L.) Pers., *Solanum americanum* Mill., *Achyranthes bidentata* Blume, *Tridax procumbens* (L.) L., etc.

Distribution: Native of South America and West Indies; introduced in Senegal, Eritrea, Ethiopia, Arabian Peninsula. Bangladesh and India [Maharashtra, Tripura (Khan & Khan 2002; Gaikwad *et al.* 2012; Das *et al.* 2016) and now in West Bengal].

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