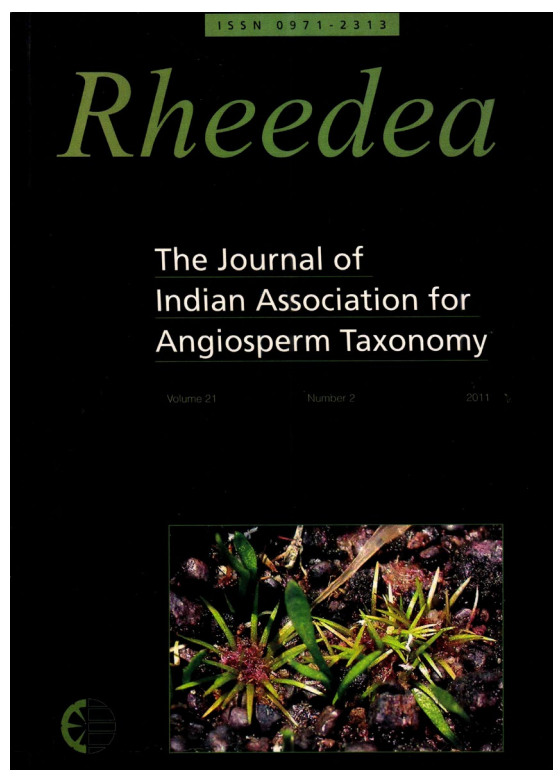




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## *Astraea lobata* (Euphorbiaceae), a new record for India

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### Abstract

*Astraea lobata* (L.) Klotzsch (Euphorbiaceae) is recorded for the first time from India. It occurs on roadsides near Akkalkot in the Solapur district of Maharashtra. A detailed description with illustration of the species is provided here.

**Keywords:** *Astraea lobata*, India, New Record

### Introduction

*Croton* L. comprises c. 1200 species and occurs throughout tropics and subtropics. It is best represented in the Americas and West Indies; c. 65 species occur in continental Africa, c. 125 in Madagascar and c. 150 species in Asia (Webster, 1993; Schmelzer, 2007). Balakrishnan & Chakrabarty (2007) dealt 16 species from India.

During a floristic survey in Solapur district of Maharashtra, authors came across an interesting population of *Croton* on roadsides near Akkalkot. It did not match with any Indian species of *Croton*. On critical examination and perusal of relevant literature (Chakrabarty & Balakrishnan, 1992; Webster, 1993; Govaerts *et al.*, 2000; Balakrishnan & Chakrabarty, 2007; Schmelzer, 2007), it was identified as *Croton lobatus* L. which is currently treated under *Astraea* Klotzsch. It is native to South America and West Indies. This species is also reported from Bangladesh (Khan & Khan, 2002). Its occurrence in Maharashtra forms a new distributional record for India. Hence, a detailed description with illustration is provided to facilitate its identification.

***Astraea lobata*** (L.) Klotzsch, Arch. Naturgesch. (Berlin) 7: 194. 1841. *Croton lobatus* L., Sp. Pl. 2: 1005. 1753 "lobatum"; Vell., Fl. Flumin. 10: t. 70. 1831.

**Fig. 1, 2**

Annuals, monoecious, 60 – 70 cm high, branched. Stems ribbed, stellate-hairy when young. Leaves alternate, sometimes opposite towards apex, 2.5 – 10 cm long, deeply 3 – 5-lobed; lobes oblanceolate to obovate, crenate-serrate at margins, acuminate at apex, sparsely stellate-hairy to almost glabrous,

3 – 5-nerved at base; basal glands absent; petioles 6 – 15 cm long; stipules, filiform, small. Inflorescences a raceme, axillary or terminal, to 12 cm long, slender; male and female flowers intermixed on inflorescences or sometimes male flowers in upper half and female flowers in lower half. Flowers unisexual, 5-merous, regular, yellowish green. Male flowers: Buds globose; pedicels slender, 1 – 2 mm long. Sepals elliptic, c. 1 mm long, obtuse at apex. Petals slightly shorter than sepals, obovate, obtuse

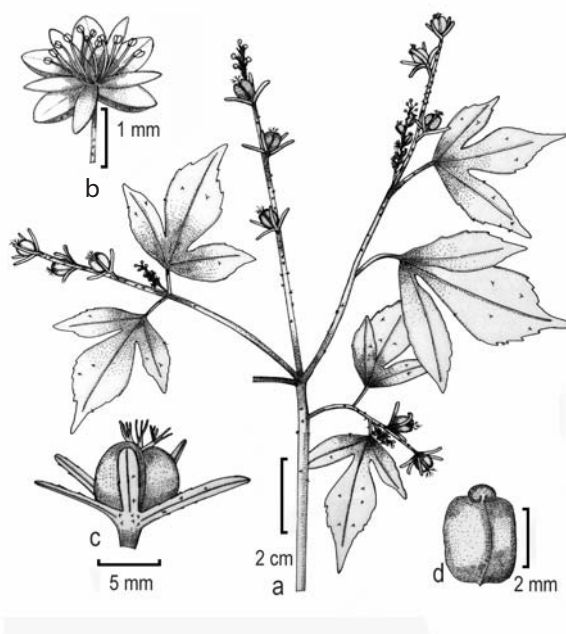


Fig. 1. *Astraea lobata* (L.) Klotzsch: a. A twig; b. Male flower; c. Female flower; d. Seed.

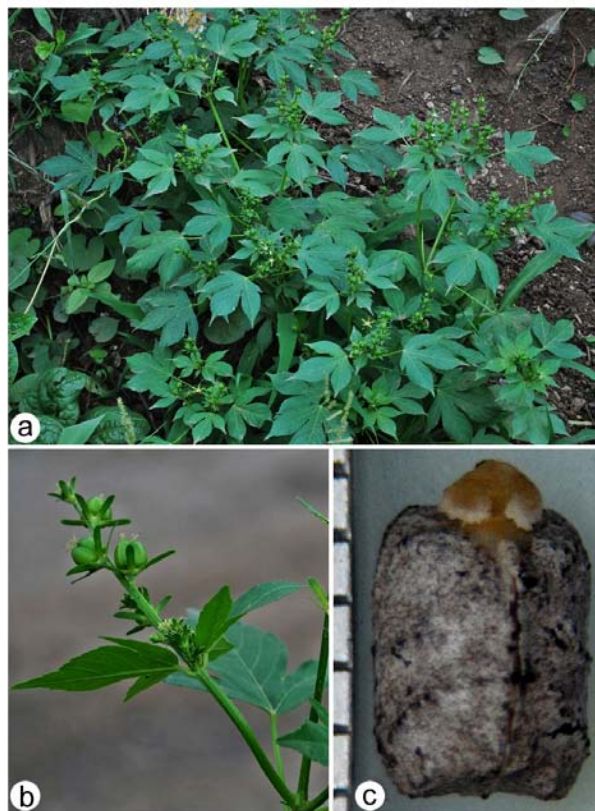


Fig. 2. *Astraea lobata* (L.) Klotzsch: a. Habit; b. Flowering twig; c. Seed.

at apex. Stamens 10 – 13, apically inflexed in bud; filaments 1 – 2 mm long; anthers *c.* 0.5 mm long, 2-celled. Female flowers: Pedicels stout, 1 – 2 mm long. Calyx persistent; lobes linear-lanceolate, *c.* 7 mm long, dentate and minute-hairy at margins. Ovary glabrous or sparsely stellate-hairy. Styles 3, 2 – 4 mm long; each one divided into 2 – 4 linear branches. Capsules ovoid-oblong, *c.* 7 mm in diam., glabrous or sparsely stellate-hairy, 3-lobed; seeds 3, ellipsoid, *c.* 6 × 3 mm, truncate at base, prominently carunculate at apex, verrucose, ash-coloured with brown spots; caruncle conical, yellowish.

*Flowering & Fruiting:* June – September.

*Habitat:* Growing on roadsides and in wastelands, *c.* 450 m.

*Distribution:* Native of South America and West Indies, and introduced in Senegal, Eritrea, Ethiopia, Arabian Peninsula and Bangladesh.

*Specimens examined:* INDIA, Maharashtra, Solapur district, Akkalkot, 22.7.2011, *Krushnadeoray U. Garad* 906; Near Akkalkot, 30.7.2011, *Ramchandra D. Gore* 947 (Walchand College Herbarium, Solapur).

*Notes:* During the present study *Astraea lobata* was found near Akkalkot in Solapur district of Maharashtra. It might have been introduced in India by pilgrims because Akkalkot is a famous place of pilgrimage and visited by thousands of pilgrims from various parts of India and other countries.

*Astraea lobata* is an alternative host of nematodes (*Meloidogyne* spp.) of fungi causing powdery mildew, and of cucumber mosaic virus (Schmelzer, 2007). Hence, there is a threat of introduction of plant diseases along with this species in India.

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