Aristolochia maxima (Aristolochiaceae): A new record for India

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Abstract

*Aristolochia maxima* is a Neotropical species native to Central and South America. It is reported here for the first time from northern Western Ghats of Maharashtra, India. A brief description along with photographs are provided for easy identification.

Keywords: India, Maharashtra, Taxonomy, Neotropical.

Introduction

*Aristolochia* L., the largest genus of the family Aristolochiaceae, comprises c. 500 species, is pantropically distributed, extending to the subtropics as well as to Mediterranean zones with a few species in temperate areas (Pfeifer, 1966; Wagner et al., 2012; Do & Nghiem, 2017). Diversity of the species declines sharply from tropics to temperate regions with China, Mexico, Brazil, and Hispaniola showing high rate of endemism (Pfeifer, 1966; González et al., 2014; Do & Nghiem, 2017). In India, the genus is represented by 18 species (Santapau & Henry, 1973; Sivarajan & Pradeep, 1989; Karthikeyan et al., 2009; Baruah et al., 2012; Ravikumar et al., 2014). During the field exploration to northern Western Ghats in 2013, an unreported species of *Aristolochia* was collected from Tilar Ghats of Maharashtra. On careful examination, it was identified as *Aristolochia maxima* Jacq., which is reported here as new to India.

Taxonomy


Sprawling lianas, c. 20 m long, stem at base woody with corky-ridged bark. Leaves oblong to ovate, 6–11.3 × 2.6–5 cm, obtuse to apiculate at apex, truncate to shallowly subcordate at base, with prominent, raised veins beneath; petioles c. 1.6 cm long. Inflorescences on new growth, axillary, solitary flowers or rhipidiate from base of plant; flowers puberulent, bracteolate, geniculate, purple brown with venaceous veins; the utricle horizontal, ovoid, 2–2.5 cm long, creamy white with reddish brown patches, stellate hairy, reddish brown ring towards the base; syrinx absent; the tube bent, 2 cm long, the limb 1 lobed, ovate, gradually expanding from the tube with dense papillae, 2.5–3.5 cm long, 2–3 cm wide. *Gynostemium* 6 lobed, 4–5 × 4 mm, crown-shaped; lobes acute to obtuse. Anthers 6, oblong, adnate to the base of the gynostemium, each anther consists of two thecae with four microsporangia (pollen sacs) equidistant. Ovary 6 locular, 2–2.5 cm long. Fruits very large, pendent, ovoid, 14–17 × 6–7 cm, dehiscence acropetal, septifragal, exposing latticed septa, hypanthium absent. Seeds numerous, flat, triangular, 10–13 × 7–9 mm, 1 mm thick.

Flowering & fruiting: March–August.
Fig. 2. Aristolochia maxima Jacq. a & b. Corky stem; c. Flowering twig; d. Flower; e. Flower side view; f. Flower back view; g. Flower with calyx colour open (1. Unicellular hairs in the limb, 2. Stellate hairs inside the utricle); h. Gynostemium; i. Stamens: front view; j. Stamens: back view; k. C.S. of ovary; l. Fruit; m. Seeds.
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**Distribution**: Central, North and South America, Martinique. In India it is found growing on moist thickets at an elevation of c. 590 m along northern Western Ghats in Maharashtra.

**Notes**: This species is commonly known as Florida Dutchman’s pipe vine and is distributed in the Neotropical regions and its present report is of phytogeographical significance as may be a case of escape into wild. Pollination systems of *A. maxima* are different from those of other *Aristolochia* in lacking trap mechanisms. Furthermore, the pollinators oviposit in the flowers, and their larvae grow on the fallen, decaying flowers on the ground. Therefore, the plants have a mutualistic relationship with their pollinators (Sakai, 2002). Preliminary observations show that even though there is profuse fruiting and seed setting, the regeneration rate is quite low.

**Specimens examined**: INDIA, Maharashtra, Kolhapur district, Tilari Ghats, 15.10.2013, A.G. Panduragan & Deepu Sivadas 78664 (TBGT!).

**Literature Cited**


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