



Asteropyrum peltatum (Ranunculaceae): A new generic record for India

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Abstract

The genus *Asteropyrum* J.R. Drumm. & Hutch. (Ranunculaceae) is recorded for the first time for India from Arunachal Pradesh. The species *A. peltatum* (Franch.) J.R. Drumm. & Hutch. was previously known to occur from southwest China, northern Myanmar and Bhutan. A detailed description along with details on habitat, distribution and photographs is provided here.

Keywords: *Asteropyrum*, New Record, Northeast India, Ranunculaceae

Introduction

Ranunculaceae are mainly distributed in northern temperate and alpine regions, and a few are in tropical or subtropical regions of the world. In India, the family consists of 28 genera and 191 species (Rau, 1993). While working on the floristic diversity of northeast India, the first author observed a population of an interesting Ranunculaceae member in Mayodia, Lower Dibang Valley district, Arunachal Pradesh. The consultation of taxonomic account on the family for Flora of India (Rau, 1993) revealed that it was not matching to any of the recorded taxa so far from the country. The plant was identified as *Asteropyrum peltatum* (Franch.) J.R. Drumm. & Hutch. with Flora of China (Fu & Robinson, 2001). It is native to southwestern China, Bhutan and northern Myanmar. The identity was further confirmed by comparing the type material (P00195054) at P. A detailed description along with colour photographs is provided here to facilitate precise identification.

Asteropyrum was segregated from *Isopyrum* L. and was established as a distinct genus by Drummond & Hutchinson (1920). Its systematic affinities have been controversial (Wang *et al.*, 2005; Yuan & Yang, 2006). The genus comprises only two species, viz., *A. peltatum* and *A. cavaleriei* (H. Lév. & Vaniot) J.R. Drumm. & Hutch. and the latter sometimes treated as a subspecies of the former. Both the species are distributed in the mountainous areas of southwestern China, with *A. peltatum* *s. str.* extending to northern Myanmar and Bhutan (Yang *et al.*, 1994). The present record extends its distribution to India also.

Asteropyrum peltatum (Franch.) J.R. Drumm. & Hutch., Bull. Misc. Inform. Kew 1920: 155. 1920. *Isopyrum peltatum* Franch., Nouv. Arch. Mus. Hist. Nat., sér 2, 8: 190. 1885. Type: Moupin, Thibet orientale, Mai 1869, 4–5000 m, David s.n. (P00195054, image!).

Herb, perennial, to 10 cm high; rhizomes short, fibrous. Leaves radical, simple, peltate, shallowly 5-lobed, 2–4 × 2–4 cm, repand-crenate at margins, obtuse at apex, sparsely strigose and green above, glabrous and pale beneath; petioles to 7 cm long, terete, puberulous, pale green. Scapes 6–10 cm high, slender, sparsely pubescent, pale green at base and pink towards apex. Bracteoles 2 or 3, alternate or opposite, triangular-ovate, 1.75–3.5 × 2.8–4 mm, acuminate at apex, glabrous, pale green. Flowers solitary, 1.2–1.5 cm in diam. Sepals 5 or 6, petaloid, suborbicular to obovate or broadly ovate, 6.5–7.5 × 5–6 mm, subacute, 5-veined, white. Petals (nectar blades) 5, yellow, cup-shaped, c. 1 mm, on 3–3.25 mm long, pale claws. Stamens 10 to 15, 5–6 mm long; filaments linear, 4–5 mm long, pale; anthers basifixed, c. 1 mm long, dark pink; pollen yellow. Carpels 3–8, oblong, 5–8 × c. 1 mm, attenuate at apex; style short; ovules numerous. Follicles obliquely oblong, 6–8 × c. 1.5 mm, glabrous, dark pink; seeds ellipsoid, brownish.

Flowering & Fruiting: May–July.

Habitat: Grows in wet localities at elevation ranges from 2200 to 2400 m. The area is characterised by heavy snowfall during January–February; in fact, the snowfall begins in November and continues



Fig. 1. *Asteropyrum peltatum* (Franch.) J.R. Drumm. & Hutch.: a. Habit; b. Plant with infructescence; c & d. Flowering scapes; e. Close-up of flower; f. Petaloid sepals; g. Follicle. [Photos by V.S. Hareesh]

till April. It grows in association with *Anemone griffithii* Hook.f. & Thomson, *Arisaema concinnum* Schott, *Primula vaginata* subsp. *normaniana* (Kingdon-Ward) F.H. Chen & C.M. Hu, *Rubus* sp., *Viola* sp. and *Selaginella remotifolia* Spring. Possibly there is a threat to its existence in this locality due to widening of the roads and other developmental activities, which may lead to loss of its natural habitat.

Distribution: Bhutan, China, India (Arunachal Pradesh) and Myanmar.

Specimen examined: INDIA, **Arunachal Pradesh**, Lower Dibang Valley district, Mayodia, c. 2300 m, 6.5.2016, V.S. Hareesh 143760 (CALI).

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