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*Arisaema sahyadricum* (Araceae), a new species from India

Abstract

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*Arisaema sahyadricum* (Araceae) from the Western Ghats of Maharashtra, India, is described as new to science and illustrated.

*Arisaema sahyadricum* S. R. Yadav, K. S. Patil, & Bachulkar, spec. nova - Fig. 1.

Type: India, Maharashtra, Ramghat, 15°54'-59'N, 73°51'-74°8'E, 800-900 m, 4. 6. 1991, Yadav 3986 (holo- CAL, iso- K, Dept. Bot. Shivaji Univ. Kolhapur).

Paratypes: India, Maharashtra, Choukul, 15°56'-58'N, 73°59'-74°1'E, 833-916 m, Patil B-341, P-342 (Dept. Bot. Shivaji Univ. Kolhapur), Patil 343 (B, Dept. Bot. Shivaji Univ. Kolhapur).

Ab A. *murrayi* (Graham) Hook. lamina spathae rubropurpurea, spadice crassiore, obtusiore, ab A. *sarracenioides* E. Barnes & C. E. C. Fisch. et A. *psittacus* E. Barnes spadice saepe monoecio, flores steriles destituto differt.

Cormous, paradioecious bisexual or sequential monoecious herb; corm 0.8-2.5 x 1.3-3 cm, globose and with fibrous roots arising from the upper side of the corm. The solitary leaf with petiole 14-35 cm long and 4-8 mm in diameter in the middle, purple red when young and turning green at maturity, the sheathing base only 3-4 cm long, its leaf blade subpedate with 3-8 leaflets of 8-21 x 3-10 cm, obovate to oblong, acuminate. Cataphylls 1-3 in number, 1-14 cm long, narrowed into an acute tip. Peduncle of inflorescence shorter than petiole, 8-13 cm long, 3-8 mm in diameter. Spathe 7-13 cm long, reddish purple, striated with vertical white striae; tube shorter than limb, 1.8-4 x 0.9-1.6 cm, limb 4.5-9 x 2-2.3 cm, dilated and curved at the throat, hoodlike, ovate, acute, reddish purple. Spadix sessile, 4.5-7.5 cm long, usually bisexual, sometimes unisexual and then usually staminate, bisexual spadix differentiated into basal pistillate portion 0.5-1 cm long and an adjacent staminate portion 2-4 cm long, newer flowers absent; appendix short, thick, blunt at the tip, curved, 1.5-4 x 0.4-1 cm, white to purple. Pistillate flowers many, compactly arranged, ovaries green, ovoid, with 4-7 basal ovules, style short, stigma white and capitate. Staminate flowers many, shortly stalked, 2 mm long, anther lobes 4-8 per stamen, white, dehiscent by purple lateral slits. Berry 6 x 7 mm, 4-5 seeded, red when ripe.

*Arisaema sahyadricum* is evidently closer related to A. *murrayi* as it has a similar vegetative morphology and likewise a monoecious spadix but it differs in its uniformly reddish-purple spathe and the short, thick, blunt appendix included in the spathe. Both species show affinities to *Arisaema* sect. *Sinarisaema*, sect. *Tenuipistillata* as well as sect. *Tortuosa*. Because of its monoecious spadix and its pollen grains with dimorphic spines similar to A. *heterophyllum* the new species can be classified as belonging to *Arisaema* sect. *Tortuosa*.



Fig. 1: *Arisaema sahyadricum* A. habit. - B. Bisexual spadix with part of the spathe removed to show inflorescence. - C. Male spadix with part of the spathe removed to show inflorescence.

### Distribution and ecology

The species grows in the Western Ghats of SW Maharashtra, India, at an altitude of about 800-1200 m around and below small bushes. The species has remained unreported until now probably due to its great similarity with *A. murrayi* in the vegetative stage, the short duration of its anthesis, i.e. about 15-20 days, and its rare occurrence. Its flowering time is in May-June, its fruiting time in June-July.

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