

Occurrence of *Phyllanthus scabrifolius* Hook. f. in Amingad, Bagalkot district, Karnataka – a new distributional record

During a botanical exploration in Bagalkot district, Karnataka, the authors collected an interesting species of *Phyllanthus* on a dry, gravelly hilly slope near Amingad village. The habitat of the species looked completely unlike most other herbaceous species of *Phyllanthus*. Critical examination and study of the specimens revealed that they belong to a species of *Phyllanthus scabrifolius* Hook. f. Further, the identity of the specimens was also confirmed at the Botanical Survey of India (BSI), Kolkata. Reference to the literature¹⁻³ revealed that the species is endemic to Maharashtra and Madhya Pradesh. Cooke² stated that there is only one sheet of this species in Kew, whereas Chaudhary and Rao³ reported this species from Madhya Pradesh based on a solitary collection in LWG. Therefore, the present collection of the species from Amingad forms a new distributional record for Karnataka. Quite likely the species may occur in other similar habitats, but must have been confused with *Phyllanthus kozhikodanus* Siv. & Mani. with which it superficially resembles. However, the two species can be separated as follows.

P. scabrifolius: Branches angled, winged, scaberulous; stipules linear, lanceolate, irregularly serrate along margins; leaves hispidulous, minutely dentate; male calyx lobes lanceolate, disk segment six, saucer-shaped with tuberculate surface; female

perianth lobes hispidulous, lanceolate, acuminate, dentate along margins; female disk rounded with irregularly lobed margin.

P. kozhikodanus: Branches terete, glabrous; stipules triangular-lanceolate, entire to dentate; leaves glabrous, entire; male calyx lobes biseriolate, unequal, outer lanceolate acute, inner elliptic subobtuse; disk segment cupular with glandular margins; female perianth lobes glabrous, acute or subacute; female disk variable, discoid with distinctly dentate or dissected margins.

To facilitate easy identification, a description and illustration of *P. scabrifolius* is provided in Figure 1.

Phyllanthus scabrifolius Hook. f. in Fl. Brit. India. 5: 299. 1887; Cooke, Fl. Pres. Bombay. 3: 84, 1967 (repr. ed.); Chaudhary & Rao, *Phytotaxonomy*. 2: 155, 2002.

Erect annual herbs, 20–35 cm high, main stem branched or unbranched, terete below, angular or grooved above, glabrous below, stem and branches winged, dentate or toothed, laciniate. Cataphylls ca. 1.5–2 mm long, narrowly triangular, lanceolate, acuminate, midrib greenish to pale brownish, margin minutely dentate or serrate. Stipules ca. 2 mm long, triangular-lanceolate, acuminate to cirrhose, margin dentate to serrate, or laciniate. Leaf blade 4–15 × 2–10 mm, thick, obovate, obovate-elliptic, broadly elliptic or rounded, cuneate at base, entire or serrate

to dentate, acuminate to apiculate, obtuse or occasionally mucronate, densely scaberulous below, sparsely scaberulous above, midrib raised below, lateral veins 4–6 pairs; petioles 1–1.5 mm long, glabrous. Cymules unisexual with solitary female flowers in upper axils and 1–3 male flowers in lower axils. Male flowers minute, pedicel 1 mm long, filiform; calyx lobes six, membranous, biseriolate, unequal, outer ca. 0.8–1 mm long, lanceolate, acute, inner ca. 0.5–0.8 mm long, ovate-obovate or obtuse, acute to rounded; stamens three, filaments connate below (two-thirds of the length), free and spreading above; disk segments six, saucer-shaped with tuberculate surface. Female flowers with ca. 1.5–2 mm long pedicel, angular; calyx lobes six, subequal, greenish, thickened along the midrib, margin membranous, minutely serrate to wavy, outer ones 2 × 1 mm, linear-obovate, lanceolate, acute, inner 2 × 1–1.2 mm, linear-obovate, subobtuse or apiculate; disk rounded with irregularly lobed margin; styles three, free, recurved from base, distinctly bilobed. Capsules 3–4 mm across, depressed-globose, three-lobed, smooth or minutely puberulous; seeds 1.5 mm long, trigonous, brownish, with 8–10 straight longitudinal lines and many fine transverse striae on the back.

Distribution: Maharashtra, Madhya Pradesh and Karnataka (India), endemic.

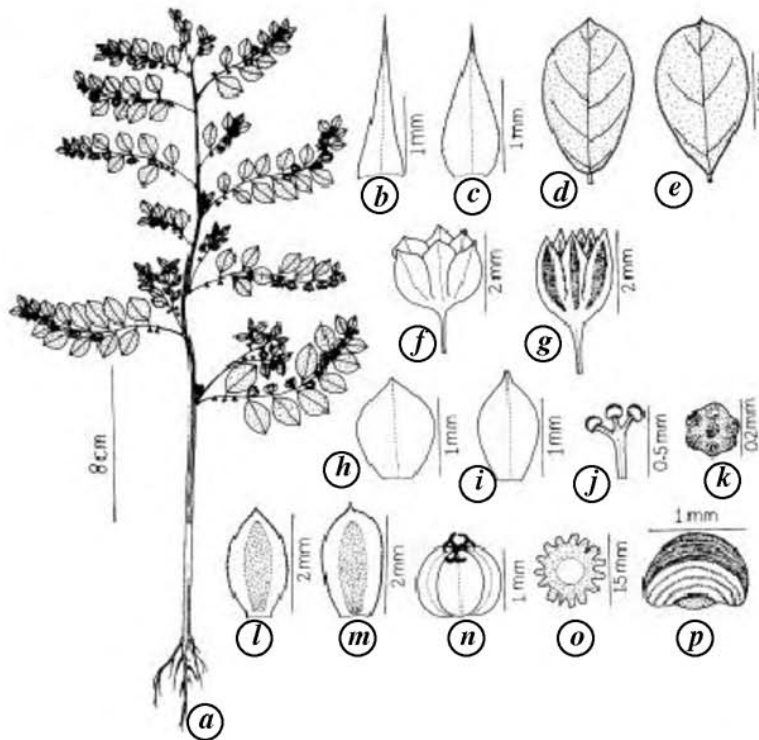


Figure 1. *Phyllanthus scabrifolius* Hook. f. **a**, Habit; **b**, Cataphyll; **c**, Stipule; **d, e**, Leaves; **f**, Male flower; **g**, Female flower; **h-i**, Male calyx lobes; **j**, Stamens; **k**, Male disk segment; **l, m**, Female calyx lobes; **n**, Pistil; **o**, Female disk; **p**, Seed.

Phenology: July to September.

Habitat: Dry, gravelly soil on hilly slope.

Notes: The specimen examined by Chaudhary and Rao³ has no cataphylls, but in our specimen prominent cataphylls are seen. This is one of the rare species of the genus in India. We could see only one population of about 25 plants all scattered on one area of 50 m. Also, the

habitat of this species is quite unlike most other herbaceous *Phyllanthus*. The scaberulous and winged branches, scaberulous and pruinose leaves make this species quite unique among the species of *Phyllanthus*. The economic significance of the species is yet to be investigated. Conservation of this species is most urgent as the population size is so

narrow. We have initiated *ex situ* conservation of this species in our conservatory at CIMAP, Bangalore.

Specimen examined: INDIA, KARNATAKA, Bagalkot district, Amingad Village, 28.09.2004, R.R. Rao & R. Murugan 1061; MADHYA PRADESH, Bhopal, Budni, Midghat forest, 17.9.1956, Hiralal & Party 32527 (LWG).

1. Hooker, J. D., *Flora of British India*, 1887, vol. 5, pp. 285–305.
2. Cooke, T., *The Flora of the Presidency of Bombay*, Taylor and Francis, London, 1901–08, vol. III, pp. 80–86.
3. Chaudhary, L. B. and Rao, R. R., *Phytotaxonomy*, 2002, 2, 143–162.

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