

**CLEISTANTHUS SANKUNNIANUS SIVAR. & INDU BALACH. A RARE AND
LITTLE KNOWN ENDEMIC PLANT REDISCOVERED FROM WILD POPULATIONS
IN KOLLAM DISTRICT OF KERALA STATE, INDIA**

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A botanical survey was conducted in Kottavasal forest in Kollam district, to collect medicinal plants for the Gene Bank at Arya Vaidya Sala, Kottakkal, Kerala. Kottavasal comes under Aryankavu Grama Panchayath, which falls under the jurisdiction of Anchal Block Panchayath in Kollam district and is situated 121 km north of the State's capital city, Thiruvananthapuram and about 80 km east of Kollam close to Shenkottai of Tirunelveli district of Tamil Nadu, lying between 09° 04' N latitude and 77° 36' E longitude. The altitude ranges from 150–550 m. above mean sea level. During the survey, an interesting species of *Cleistanthus* (Euphorbiaceae) was collected. Critical studies have confirmed it as *Cleistanthus sankunnianus*. The specimens have been compared with the type specimens housed in CALI Herbarium, Calicut University. A brief description together with ecological notes is provided here for a better understanding of this endemic and little known species.

Cleistanthus sankunnianus Sivar. & Indu., Kew Bull. 40: 121. 1985; Chakrab. & Gangopadhyay, Jour. Econ. Taxon. Bot. 26: 344. 2002; Sasidharan, Biod. Doc. Kerala, Flow. Pl. 413. 2004.

Erect, profusely branched subshrubs, up to 1 m tall; branchlets scandent, rusty villous; stems terete. Leaves bifarious, elliptic or elliptic-lanceolate, acute or shortly acuminate at apex, slightly cuneate or truncate at base, 5–8 × 2–3 cm, glabrous, entire; lateral nerves not prominent, slender; petioles 2–3 mm long; stipules lanceolate, minute, villous, ca 1.5 mm long. Flowers in few-flowered axillary or extra-axillary sessile glomerules; bracts and bracteoles minute, ovate-acute, villous. Male flowers sessile, ca 2.5 mm across; calyx 5-lobed, united below the middle, lobes ovate-acute, ca 1 mm long, glabrous; petals minute, alternating with the sepals, clavate or obovate, lacerate at tip, glabrous; disc cup-shaped, fused with the calyx tube; stamens 5, filaments united into a tube, staminal tube ca 1 mm long, anthers white, ellipsoid; pistillode 3-fid, lobes linear. Female flowers short-pedicelled, fruiting pedicels 1–2 mm long; calyx 5-lobed, lanceolate-acute, united below, lobes ca 2 mm long, glabrous, persistent; petals and disc as in male flowers; ovary sessile, ovoid, 3-lobed, black when mature, ca 5 × 5 mm, glabrous, dehiscing into three 2-valved cocci; seed single in each locule.

Fl. & Fr. : Almost throughout the year.

Distrib. : Endemic to Kollam district of Kerala.

Habitat : Rare in semi-evergreen forests.

Specimens examined : P.S. Udayan & al., 03400 collected from Kottavasal forests near Achenkovil, Kollam District, Kerala State, at an altitude of ± 350 m on 26.02.2005. A good population of mature individuals was observed in the area.

Biotic association : This endemic shrub is rare and found to grow near moist and shady localities of semi-evergreen forests. It is growing along with *Anamirta cocculus* (L.) Wight & Arn. (Menispermaceae); *Anaphyllum wightii* Schott (Araceae); *Aristolochia tagala* Cham. (Aristolochiaceae); *Asparagus racemosus* Willd. (Asparagaceae); *Canarium strictum* Roxb. (Burseraceae); *Cassia fistula* L. (Caesalpiniaceae); *Celastrus paniculatus* Willd. (Celastraceae); *Cycas circinalis* L. (Cycadaceae); *Cyclea peltata* (Poir.) Hook.f. & Thoms. (Menispermaceae); *Firmiana colorata* (Roxb.) R. Br. (Sterculiaceae); *Geophila repens* (L.) Johnst. (Rubiaceae); *Glochidion zeylanicum* (Gaertn.) A. Juss. (Euphorbiaceae); *Hemidesmus indicus* (L.) R. Br. (Periplocaceae); *Mallotus philippensis* (Lam.) Muell.-Arg. and *Phyllanthus polyphyllus* Willd. (Euphorbiaceae); *Piper longum* L. (Piperaceae); *Pseudarthria viscida* (L.) Wight & Arn. (Fabaceae); *Symplocos cochinchinensis* (Lour.) Moore ssp. *laurina* Nooteb. (Symplocaceae); *Thottea siliquosa* (Lam.) Ding Hou (Aristolochiaceae) and *Trichopus zeylanicus* Gaertn. ssp. *travncoricus* (Bedd.) Burkill ex Narayanan (Trichopodaceae).

Notes : This species was known only from the type locality, Herb Garden, Kottakkal, Malappuram district in Kerala (Sivarajan & Indu, 1985). Chakravarty & al. (2002) and Sasidharan, (2004) cited only the type collection made by Sivarajan & Indu and mentioned that the nativity of this species is not known. The present collection from Kottavasal forest of Kollam district is the first report on its nativity. Nayar (1996) has not reported this endemic species in his 'Endemic Plants of Indian Region'. This species can easily be recognized by its glabrous ovary, persistent calyx, sessile male flowers and non-stipitate capsules.

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REFERENCES

- CHAKRAVARTY, T., M. GANGOPADHYAY AND N.P. BALAKRISHNAN. The genus *Cleistanthus*. Hook.f. ex Planch. (Euphorbiaceae) in the Indian subcontinent. *J. Econ. Taxon. Bot.* 26 (2): 331 - 345. 2002.
- NAYAR, M.P. "Hot spots" of Endemic Plants of India, Nepal and Bhutan. Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram. 1996.
- SASIDHARAN, N. Biodiversity documentation for Kerala. Part.6: Flowering Plants. Kerala Forest Research Institute. Peechi. Kerala. 2004.
- SIVARAJAN, V. V. AND INDU BALACHANDRAN. *Cleistanthus sankunnianus*, a new species of Euphorbiaceae from India. *Kew Bull.* 40 (1): 121 - 123. 1985.