

**CORDIA CYLINDRISTACHYA ROEM. ET SCHULT. (BORAGINACEAE)
NATURALISED IN INDIA**

The authors in the course of their collection trips to Kallada, Quilon District, Kerala State, collected specimens identified here as *Cordia cylindristachya* Roem. et Schult. The plant was originally found growing luxuriantly in Kallada, a low lying area full of paddy fields on the eastern side of Kallada river. Later, it was collected from Sasthamkotta, a hilly tract 5 kilometers west of Kallada on the other side of the river, where it is found growing as a hedge plant along boundaries of compounds and roadsides. This Tropical American plant has not been recorded so far from India.

C. cylindristachya, commonly called String Bush, was introduced to Kallada some thirty years ago by a local man who was formerly in Singapore. Though introduced, it has become well naturalized in the whole area embracing Sasthamkotta, Kallada and neighbouring places and covering an area of over thirty square kilometers.

As the species is new to Indian Flora, an illustrated description, made from studies of fresh specimens, is given below.

C. cylindristachya Roem. et Schult. Syst. 4 : 459, 1819. (Figs. 1-6).

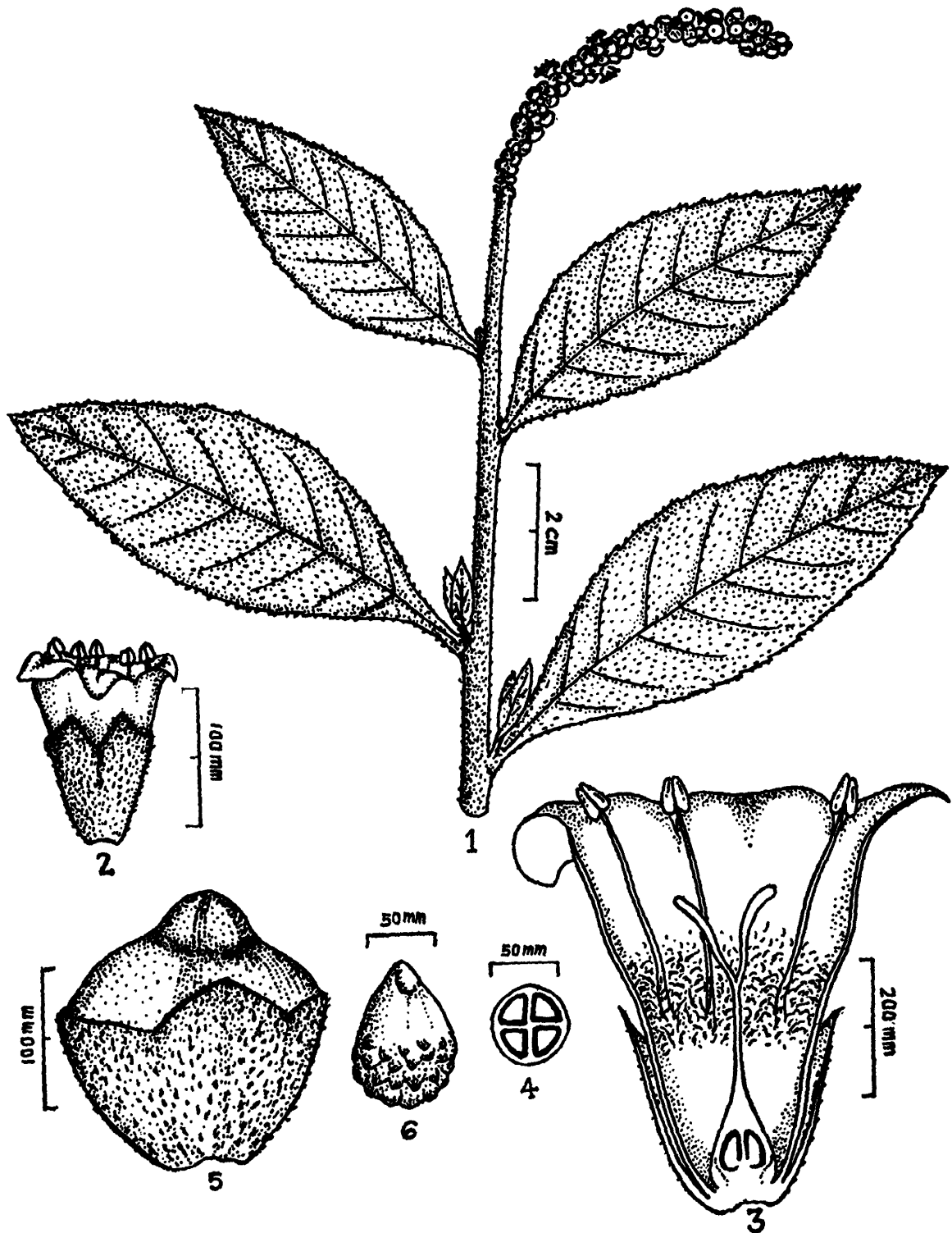
A bushy shrub, 3 to 4 meters high, scabrid to hirsute hairy throughout. Leaves simple, alternate or subopposite, exstipulate and petiolate; petiole jointed on the raised node, to 1.5 cm long; blade ovate or ovate-lanceolate with an acute or slightly acuminate tip, an acuminate base decurrent on the petiole and serrate margin, pinnately veined, scabrid above, soft hairy beneath, to 20 cm long and 7 cm broad. Inflorescence a terminal cymose spike, hairy as the stem, with numerous crowded sessile flowers arranged all round the axis basipetally, to 20 cm or more

long including the ± 7 cm long stalk. Flowers actinomorphic, bisexual without bract and bracteoles; calyx more or less campanulate with five triangular valvate lobes, shortly hairy outside, to 4 mm long and 3 mm wide at mouth, persistent, turning reddish in the fruit; corolla white, funnel-shaped, to 7 mm long, 4 mm wide at mouth, lobes triangular ± 3 mm long, induplicate valvate, glabrous outside, hairy inside near the middle of the tube; stamens attached to the middle of the tube, included or slightly exerted; filaments glabrous, ± 3 mm long; gynoecium with a disc adnate to the base of the ovary which is 4-loculed, each locule with a single ovule; style terminal, glabrous, twice-bipartite at the tip, to 4.5 mm long; stigma clavate. Fruit an ovoid or ellipsoid drupe, red when ripe, surrounded by persistent calyx, to 8 mm long and 8 mm wide, with a viscid pulp; putamen one or two-celled.

This shrub, which flowers throughout the year and has a remarkable spike working from apex to base, is recorded by E. J. H. Corner in his *Wayside Trees of Malaya* (1940) to have been introduced to Singapore from Tropical America in the last century. From the point of view of practical use, it is excellent for making a close compact hedge. Propagation is by seeds and stem cutting.

Herbarium specimen Ravi 1646 A is deposited in the Regional Herbarium of the Botanical Survey of India, Southern Circle (MH), Coimbatore, specimen Ravi 1646 B is deposited in the Central National Herbarium (CAL), Howrah and specimens Ravi 1646 C-F are deposited in the Shree Narayana College Herbarium, Quilon, Kerala State.

The authors wish to express their thanks to the Director and Indian Liaison Officer,



Cordia cylindristachya Roem. et Schult.

Figs. 1-6 : 1. Habit. 2. Flower. 3. L. S. of flower. 4. C. S. of ovary. 5. Fruit. 6. Putamen.

Royal Botanic Gardens, Kew for their help in identifying the taxon.

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CRITICAL NOTES ON LITTLE KNOWN PLANTS FROM ARUNACHAL PRADESH

The Flora of Subansiri district in Arunachal Pradesh is under intensive study. In the course of several botanical explorations conducted in the above area, the senior author came across two interesting plants, namely *Rhyncho techum calycinum* C. B. Clarke (Gesneraceae) and *Leycesteria glaucophylla* (Hook. f. & Thoms.) Clarke (Caprifoliaceae), the latter being recorded for the first time from Arunachal Pradesh. Besides, the details of floral characters of *Rhyncho techum calycinum* is given for the first time, while *Leycesteria glaucophylla* is a rare species, found in higher elevations. Recent finding of *L. glaucophylla* in Arunachal Pradesh forms a connecting link with its occurrence in Burma as it has been earlier reported in Sikkim, Bhutan, Nepal and Burma. The plant is noted for the peculiarity of its indumentum which is non-adepressed and irregular on the under surface.

Rhyncho techum calycinum C. B. Clarke in Hook. f. Fl. Brit. India 4 : 374. 1885 ; Burkill in Rec. Bot. Surv. India 10(2) : 330. 1925. (Figs. 1-5).

The species was first described by C. B. Clarke (1885), based on a collection from a locality "on the Soondra bank—upper Assam ?", stating "Corolla not seen". Burkill (1925) collected the fruiting specimen of the plant from Janak Stream (37282), Siang district between 1911-1912 during the Abor Expedition. There appears to be no other record of its collection from the Himalayas

or from any other part of India. Hence, the present report from Itanagar and Kheel in the Subansiri district, is significant in that the flower is described in detail for the first time.

Flowers white, 10-12 mm across, in axillary capitate cymes ; peduncles whitish green ; pedicels ca 1 mm long, white. *Sepals* oblong, 8-9 × 2 mm, white, shortly united at base, acute to obtuse at apex, variable in shape, imbricate, 3-nerved, glabrous, exceeding the corolla tube by 2 mm, persistent. *Corolla-tube* campanulate, 5-8 mm long ; lobes 5, orbicular, 7.2 × 2.0 mm reflexed, glabrous, nerves prominent. *Stamens* 4, one abortive, didynamous, alternate, epipetalous ; filaments attached to the petals, up to 5 mm long, free upward, curved, slender below and stouter above, purple brown ; smaller stamens 1 mm long ; anthers ovoid, 0.6 × 0.6 mm yellowish-purple. *Pistil* 7 mm long ; ovary obconic, ± 2.5 × 2.0 mm ; style ± 4.5 mm long, slender, pink ; stigma capitate, white. *Berry* small, glabrous.

Specimens examined : Subansiri district : Itanagar, 400-600 m 27.6.1978 G. D. Pal 75958, in fruiting (ARUN) ; Doimukh Sagali Road, 20 km from Doimukh towards Kheel, 600 m, 26.10.1985, G. D. Pal 1941, in flowering (ARUN).

Distribution : INDIA : Arunachal Pradesh.

Ecological data : It is growing in primary forest edges, moist & shady places along streams associated with *Phlogacanthus carvi*.