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LYONIA MACROCALYX (J. ANTHONY) AIRY SHAW (ERICACEAE) – A NEW RECORD FOR INDIA FROM ARUNACHAL PRADESH AND NAGALAND

S. PANDA*
Botanical Survey of India, CNH, Howrah – 711 103

The genus *Lyonia* Nutt. consists of about 35 species (Judd, 1981) and is distributed in Eastern Asia (Japan to Pakistan, South to Malay Peninsula), Greater Antilles and North America (Eastern USA and Mexico). Of these only 4 species (*viz.*, *L. ovalifolia*, *L. villosa*, *L. macrocalyx* and *L. sikkimensis*) are reported to occur in India and are confined to Himalayas and North eastern India (except Assam and Tripura).

During a field trip to Saramati Mt. in Tuensang district of Nagaland (March-April, 2003) some interesting specimens of a species of *Lyonia* Nutt. were collected on the way to Thanamier village from Penkim village. A critical study of these specimens revealed that they belong to *Lyonia macrocalyx* (J. Anthony) Airy Shaw, a Sino-Burmese species hitherto not recorded from India. Some specimens of this species collected by K. Haridasan (no. 1825 & 7283) from Shikar forest in West Siang district of Arunachal Pradesh were identified as *Lyonia* sp. in State Forest Research Institute Herbarium (APFH), Itanagar, Arunachal Pradesh. The species is provided with detailed description, illustration, key to Indian species and field notes.

Lyonia macrocalyx (J. Anthony) Airy Shaw **(Fig. 1)**

Airy Shaw in Curtis's Bot. Mag. 160: t. 9490. 1937; Judd, J. Arnold Arbor. 62 (2) : 185. 1981. *Pieris macrocalyx* J. Anthony, Notes Roy. Bot. Gard. Edinburgh 15: 241. 1927. Type: China, Yunnan, Hills north of Lung-fan, 25° 54′ N, 98° 33′E, 9000 ft, June, 1925, *G. Forrest* 26800 (holotype: E, *n.v.*; iso. : A, *n.v.*).

Stout, erect shrub to treelet, 1 2 m high. Stem greyish-white to pale brown, terete, profusely branched, glabrous; branchlets light green, densely villous or covered with long headed glandular hairs. Leaves chartaceo-coriaceous to papery, lamina elliptic, oblong-elliptic to rarely ovate, 5 11 × 2 4 cm, obscurely serrulate-ciliate at margin, broadly cuneate at base, acuminate, long acuminate to mucronate at apex, dark green, glaucous, densely villous along midvein above, light green, villous along lateral veins beneath; venation conspicuous brochidodromous with 10 12 pairs lateral veins;

*Present Address: Botany Department, Barasat Govt. College, Barasat. West Bengal.

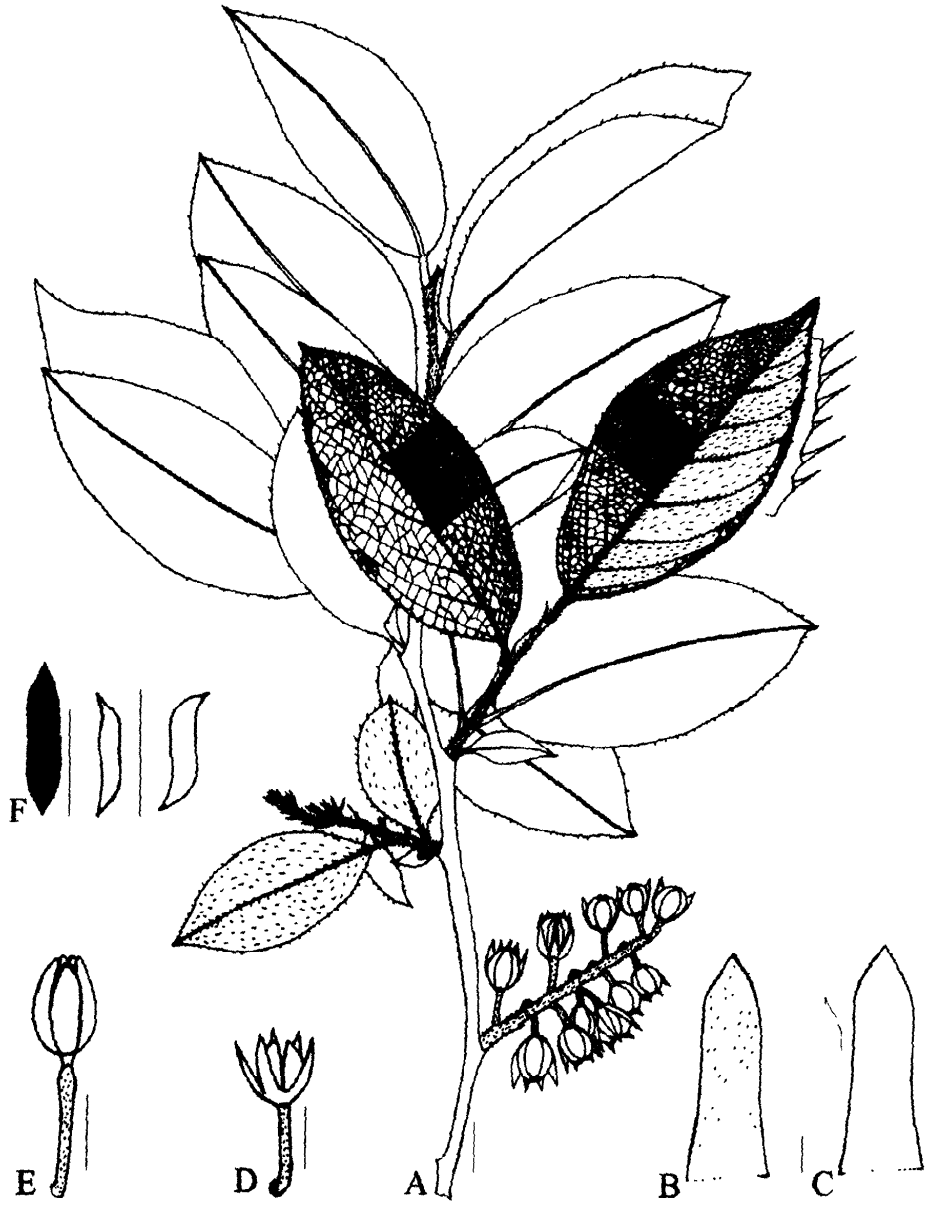


Fig. 1. **Lyonia macrocalyx** (J. Anthony) Airy Shaw :
A. habit; B – C. calyx lobes; D – E. fruits; F. seeds. — Scale bars: A = 1 cm; B, C, F = 1 mm; D, E = 4 mm (A – F: drawn from *S. Panda* 30858).

petioles 4 7 mm long, villous. Infructescence blackish-brown, 3 7 cm long, rachis consisting of 8 12 fruits, glabrous or densely puberulous. Calyx lobes of capsule 5-lobed, equal, basally united, ovate, ovate-elliptic to lanceolate, *ca* (7-) 12 × (1.5-) 4 cm, entire at margin, acuminate at apex, glabrous. Capsule loculicidally 5-valved with a dry persistent calyx, subglobose to globose-ovoid, 5 6 × 4 6 mm with (6 -) 11 17 mm long glabrous or puberulous pedicel, glabrous. Seeds numerous, linear, elliptic, acicular, sickle-shaped, 1 2.5 mm long, scariose.

Distrib.: India : Eastern Himalayas (Arunachal Pradesh) and North eastern India (Nagaland); Western China and Northern Mayanmar.

Habitat: This species grows gregariously in discontinuous patches in dry as well as moist rocky slopes in association with *Lyonia ovalifolia*, *Rhododendron arboreum* and *Rubus* spp. at an altitude of *ca* 1800 m.

Fl. : not known in India (May to July in China). *Fr.* : November – December; March – April.

Specimens examined: Arunachal Pradesh: Shikar forest, West Siang district, 28.11.1984, *Haridasan* 1825 (APFH); 18.11.1994, *Haridasan* 7283 (APFH); Nagaland: On the way to Thanamier village from Penkim village, Tuensang district, 1800 m, 31.03.2003, *S. Panda* 30858.

Key to the Indian speceis

1a. Anther-filament junction spurred	...	*L. ovalifolia*
1b. Anther-filament junction spurless	...	2
2a. Lamina distinctly cordate at base; stamens shorter (*ca* 2.5 mm long); filaments straight	...	*L. sikkimensis*
2b. Lamina usually rounded, slightly cordate to rarely cuneate at base; stamens comparatively longer (*ca* 5-8 mm long); filaments geniculate	...	3
3a. Leaves acuminate, long acuminate to rarely mucronate at apex; calyx lobes larger (5-11 × 1.5-7 mm); corolla globose-urceolate	...	*L. macrocalyx*
3b. Leaves mucronate to rarely short acuminate at apex; calyx lobes comparatively smaller (3-5 × 0.5-2 mm); corolla tubular to tubulo-urceolate	...	*L. villosa*

Field notes : The populations of Arunachal Pradesh and Nagaland showed glabrous branchlets, 16-22 mm long fruit including 11-17 mm long glabrous pedicels (*Haridasan* 7283), densely glandular hairy branchlets, 11-13 mm long fruit including 5-6 mm long puberulous pedicels (*S. Panda* 30858) and obscurely serrulate-ciliate leaf margin in both not reported earlier.

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REFERENCE

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