

Notes on a little known genus *Ancistrocladus* Wallich *ex* Wight & Arnott [Ancistrocladaceae] from Northeast India

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Abstract

The present paper deals with the taxonomic account of genus *Ancistrocladus* Wallich *ex* Wight & Arnott from Northeast India. Of the three species recorded so far from Northeast India, *A. heyneanus* Wallich *ex* J. Graham is reported for the first time from the Indian state of Meghalaya and *A. tectorius* (Loureiro) Merrill is reported as extended distribution in Mizoram.

Key words: *Ancistrocladus heyneanus*, *A. tectorius*, *A. wallichii*, Assam, Meghalaya, Mizoram, extended distribution, Northeast India

INTRODUCTION

Ancistrocladus Wallich *ex* Wight & Arnott is the only genus of Ancistrocladaceae. This monogeneric family is placed next to Dipterocarpaceae from which it is distinguished based on unilocular ovary with a basal ovule, seeds with ruminant endosperm, climbing habit, sympodial structure, exstipulate leaves and hooked branches (Das 1993). The genus *Ancistrocladus* represents 12 species in World, geographically confined to Tropical W. Africa, S. E. Asia and S. China. In India the genus is represented by ca. 4 species, namely *Ancistrocladus attenuatus* Dyer, *A. heyneanus* Wallich *ex* J. Graham, *A. tectorius* (Loureiro) Merrill and *A. wallichii* Planchon. Of these 4 species, *A. heyneanus* is phyto-geographically endemic to India occurring in Maharashtra, Karnataka, Tamil Nadu and Kerala (Das 1993). Whereas, *A. wallichii* and *A. tectorius* are the two species of the genus previously reported from Assam and Meghalaya respectively (Kanjilal *et al* 1934).

During the survey and exploration tours to Balphakram National Park, South Garo Hills, Meghalaya and Dampa Tiger Reserve, Keisalam Tlang, Mizoram some interesting and unknown specimens of *Ancistrocladus* were collected. After careful examination of these specimens and scrutinizing available literatures (Hooker 1874; Kanjilal *et al* 1934; Das 1993; Hajra *et al* 1999; Venkanna & Prasanna 2000; Chandrasekaran 2005) at ASSAM, Botanical Survey of India, ERC, Shillong, the specimens were identified as *Ancistrocladus heyneanus* Wallich *ex* J. Graham and *Ancistrocladus tectorius* (Loureiro) Merrill respectively. *Ancistrocladus heyneanus* had not been reported so far from any part of Northeastern states and *Ancistrocladus tectorius* is reported first time from Mizoram as earlier it is reported only from Assam and Meghalaya.

The present communication deals with brief taxonomic descriptions, keys and geographical distribution along with line diagrams and uses of both, *A. heyneanus* and *A. tectorius*. Taxonomic citation and distribution of *A. wallichii* is also presented in the paper. The specimens are deposited at ASSAM for future references.

Key to the species

1. Leaves 40 – 60 cm long *A. wallichii*
1. Leaves 10 – 30 cm long 2
2. Lianas or scandent shrubs with grayish-brown stems; lamina elliptic-lanceolate to oblanceolate, 10 – 22 x 4.5 – 5.5 cm, acute; flowers creamy yellow or yellowish-white *A. heyneanus*
2. Strong lianas with black stems; lamina obovate-oblong, 12 – 30 x 6 – 8 cm, obtuse; flowers pinkish-white *A. tectorius*

Ancistrocladus heyneanus Wallich *ex* J. Graham, *Cat. Pl. Bombay* : 28. 1839; Dyer in Hooker *f.*, *Fl. Brit. India* 1: 299. 1874; S. Das in B.D. Sharma & M. Sanjappa, *Fl. India* 3: 254. 1993; Venkanna & Prasanna in Singh *et al*, *Fl. Maharashtra* 1: 287 – 288. 2000.

Lianas or scandent shrubs with grayish-brown stems; branches with woody hooks. Leaves crowded at branchlet apices, sessile, elliptic-lanceolate to oblanceolate, 10 – 22 x 4.5 – 5.5 cm, acute, narrowed at base, coriaceous, reticulately veined. Panicles terminal, lax, dichotomously branched. Flowers 1.5 cm across, bisexual, very caducous, creamy yellow or yellowish-white. Sepals 5, oblong, accrescent, rounded at apex, lobes spatulate, unequal in size with 3 longer and 2 shorter ones. Petals 5, ovate-oblong, pale yellow or white. Stamens 10; filaments 6-9 mm long, alternately shorter. Ovary 1 locular, 1-ovuled; styles 3; stigmas discoid. Nuts indehiscent, surrounded by 5-unequal wings, 1-seeded; seeds globose, somewhat depressed above, corrugated. [Fig. 1]

Flowering & Fruiting: April – August.

Habitat: Very rare in moist deciduous to semi-evergreen forest.

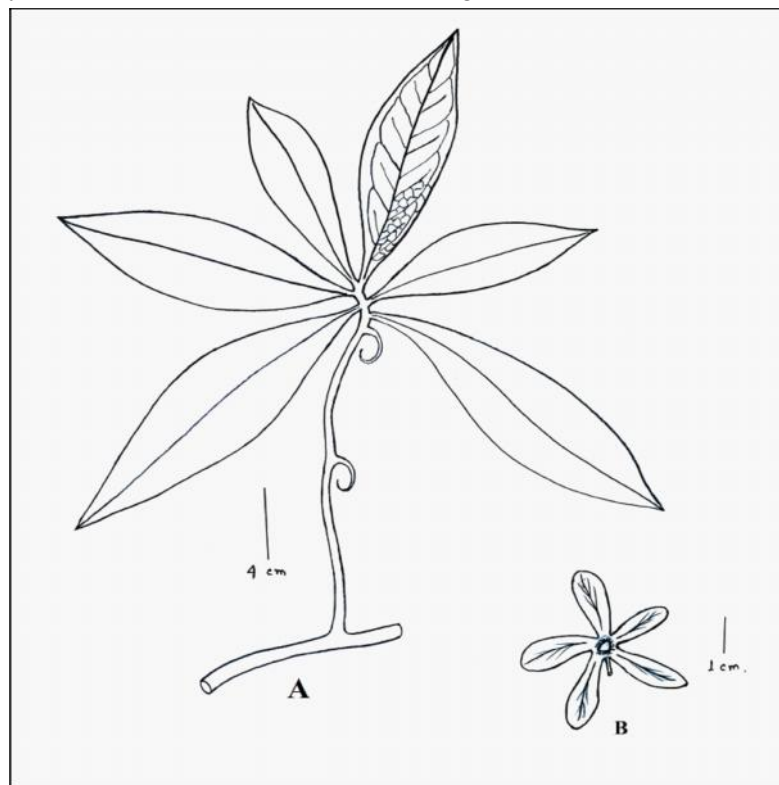


Fig. 1: *Ancistrocladus heyneanus*: A. Leafy branch with hooks; B. Fruit.

Distribution: INDIA: Western Ghats (Maharashtra, Karnataka, Tamil Nadu and Kerala).
New distributional record: North East India (Meghalaya). Endemic.

Exsiccatae: Meghalaya, Balphakram National Park, South Garo Hills, 14.04.2012, 150 m
amsl., *D. K. Roy* 125577 (ASSAM).

Note: Some Naphthylisoquinoline alkaloid compounds viz. ancistrocladine and ancistroheynine-A, isolated from *A. heyneanus* are strongly anti-HIV active substance, which is currently under preclinical investigation in U.S.A. (Meininger *et al* 1997).

Ancistrocladus tectorius (Loureiro) Merrill, *Lingn. Sc. J.* 6: 329. 1930. *Bembix tectoria*
Loureiro, *Fl. Coch.* 282. 1790. *Ancistrocladus extensus* (Wall. cat. 1052, *nomen*) Planchon,
Arn. Sc. Nat. 3, 13: 318. 1849; Dyer in Hooker *f.*, *Fl. Brit. India.* 1: 299. 1874; Parkinson,
For. Fl. Andaman Islands 95. 1923.

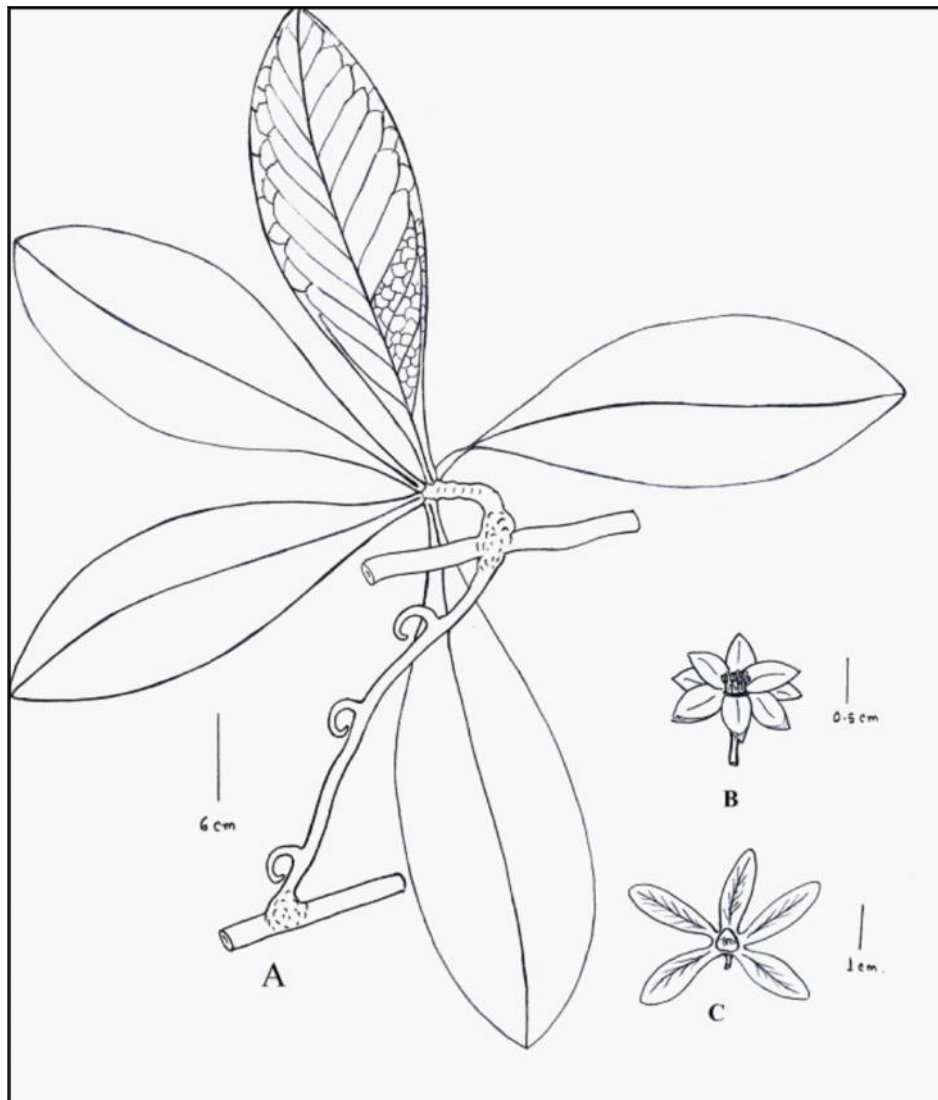


Fig. 2: *Ancistrocladus tectorius*: A. Leafy branch with hooks; B. Flower; C. Fruit.

Strong lianas with black stems; branches sympodial with a series of circinate woody black hooks. Leaves crowded at branch tips, sessile, variable in size and shape, usually obovate-oblong, 12 – 30 x 5 – 8 cm, obtuse, tapering at base, glabrous, dark green, midrib prominent. Panicles repeatedly dichotomous; bracts ovate acute. Flowers bisexual, regular, bracteates, crowded at the tips. Sepals 5, unequal, imbricate, oval, thin margined, provided with 1-3 conspicuous prominent glands. Petals 5, united at the base, oblique-oval, margin often involute, acute, white. Stamens 10, alternately unequal; filament broadened at the base; anthers basifixed. Carpels 3, ovary half inferior, 1-celled, adnate to calyx, ovule 1, basal, ascending with 2 integuments; style 3, erect; stigma flattened or discoid. Nuts with spreading unequal calyx wings, oblong cuneate to spatulate, often oblique, apex blunt to rounded; seeds obconical. [Fig. 2]

Flowering & Fruiting: January – May.

Habitat: Very rare in evergreen dense forest.

Distribution: INDIA: Meghalaya, South Andaman Islands. New distributional record: North East India (Mizoram). CHINA, INDONESIA, MALAYSIA, MYANMAR, THAILAND and VIETNAM.

Exsiccatae: Mizoram, Dampa Tiger Reserve Forest, Keisalam Tlang, Mamit, 09.12.2006, 200 m amsl., *N. Odyuo* 113585 (ASSAM).

Note: In Thailand plants used in treatment of dysentery & malaria, young leaves used as flavouring agent (Mabberley 2008). Stem of this plant used by Andamanese for making arrows (Das 1993).

Ancistrocladus wallichii Planchon in Ann. Sci. Nat. ser. 3, 13. 319. 1849; Dyer in Hooker *f.*, Fl. Brit. India 1: 300. 1874; Kanjilal *et al.*, 1(1): 138. 1934; S. Das in B.D. Sharma & M. Sanjappa, Fl. India 3: 256. 1993.

Flowering & Fruiting: January – May

Habitat: Rare in mixed evergreen forests.

Distribution: INDIA: Andaman Islands, Assam. BANGLADESH and MYANMAR.

Note: Kanjilal *et al.* (1934) reported the occurrence of the species in Assam based on Brandis's collection made from Cachar. Since long, the species is not reported from either Assam or any other North-eastern states of India.

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