

***Ampelocissus hoabinhensis* C.L. Li [Vitaceae]: a new record for Indian flora from Arunachal Pradesh**

**K. Jeyaprakash^{1*}, N. Balachandran², K. Karthigeyan³,
S. Rathinavel⁴ and Otem Dai¹**

¹North Eastern Institute of Folk Medicine (Department of AYUSH), PLT Road,
Pasighat – 791 102, East Siang, Arunachal Pradesh, India.

²Foundation for Revitalization of Local Health Tradition, Jarakbande Kaval, Post Attur,
Via Yelahanka, Bangalore – 560106, India.

³Botanical Survey of India, Central National Herbarium, Howrah-711 103, India.

⁴Department of Botany, Saraswathi Narayanan College (Autonomous), Perungudi,
Madurai-625 022, India

*Corresponding author; E-mail: jprakash@live.in

[Received 10.05.2014; Revised 28.05.2014; Accepted 30.05.2014; Published 30.06.2014]

Abstract

Ampelocissus hoabinhensis C.L. Li (Vitaceae) is reported for the first time in India from Arunachal Pradesh. This species differs from other *Ampelocissus* species in India by having purple bristles and brown arachnoid tomentum on stem, petiole, leaves and panicles. A detailed description and photographs are provided for identification.

Key words: *Ampelocissus hoabinhensis*, Vitaceae, New Record, Arunachal Pradesh, India.

INTRODUCTION

The genus *Ampelocissus* of Vitaceae was established by Planchon in 1884. It comprises of ca. 95 species in worldwide and is chiefly distributed in tropical Asia, Africa, Australia and Central America (Wen 2007). There are 10 species recorded in India (Shetty & Singh 2000) of which *A. barbata* (Wallich) Planchon, *A. divaricata* (Wallich ex Lawson) Planchon, *A. latifolia* (Roxburgh) Planchon, *A. rugosa* (Wallich) Planchon and *A. sikkimensis* (Lawson) Planchon are represented from northeast region. During the recent survey of medicinal flora in the Yaapgo of Pasighat and its surrounding areas, the first author collected an *Ampelocissus* species in the evergreen forest. A thorough scrutiny of regional and national floras viz., *The Flora of British India* (Lawson 1875) and *Flora of India* (Shetty & Singh 2000); the Northeastern State Floras, such as Flora of Namdapha, Arunachal Pradesh (Chauhan *et al.* 1996), Materials for the flora of Arunachal Pradesh (Hajra *et al.* 1996), Flora of Tripura (Deb 1983), Tree Flora of Meghalaya (Haridasan & Rao 1985), Flora of Assam (Kanjilal *et al.* 1936), Flora of Manipur (Singh *et al.* 2000), Flora of Mizoram (Singh *et al.* 2002) and Flora of Sikkim (Srivastava 1998), confirmed that the specimen is a species of *Ampelocissus* Planchon and further reexamination with the descriptions and illustrations available at “e-Flora of China” and the protologue (Li 1997) it has identified and confirmed as *Ampelocissus hoabinhensis* C.L. Li, a species hitherto not reported from India. Therefore, the present collection forms a new

record to India with extended distribution from China to India. The voucher specimens will be deposited at CAL and at North Eastern Institute of Folk Medicine, Pasighat, Arunachal Pradesh, for future reference. A key to identify the species, detailed description, geographical distribution, ecology and photo plates are provided for its easy recognition.

Taxonomic treatment

Ampelocissus hoabinhensis C.L. Li, Acta Phytotax. Sin. 35 (6): 552 – 555. 1997; Fl. China 12: 209, 183, 2007.

Vernacular Name: *Dumholepang* (Adi)

Woody climbers; root-stock thick, woody (**Fig.1**). Branchlets terete, with dense brown arachnoid tomentum and purple bristles ca. 0.5 cm (matured) long, all over (**Fig.-2**). Tendrils trifurcate rarely bifurcate. Leaves simple; stipules caducous; petioles 7.1 – 20 cm, with arachnoid tomentum and purple bristles; lamina broadly ovate-cordate, 6.9 – 22.4 × 4 – 26 cm, deeply cordate at base, dentate, acute, mucronate at apex, purple bristles on adaxial side and arachnoid tomentum on abaxial side, 5 – 7-nerved at base; lateral veins 3 – 5 pairs, impressed and prominent above, inconspicuous beneath (**Fig.3**). Panicles leaf-opposed, 6.5 – 11.6 × 2.5 – 6.7 cm, with brown arachnoid tomentum; peduncles 1 – 5.3 cm long; pedicels 0.3 – 0.5 cm, glabrous. Buds ovoid-elliptic, ca. 2 mm long, obtuse at apex. Calyx saucer-shaped, glabrous, shallowly lobed. Petals elliptic, ca. 2 mm long, glabrous. Stamens 5. Disk 5, conspicuous, free. Ovary conical; stigma conspicuous, 5-lobed (**Fig.4**). Berries, subglobose, ca. 2 × 0.7 cm, green when young, turning red then dark purple to blackish when ripens (**Fig.5**). Seeds-2, 0.5 - 0.7 × 0.3 - 0.4, oval shaped, more compressed dorsiventrally, long parallel infolds and centrally positioned oval chalaza (**Fig.6**).

Flowering and Fruiting: June – September.

Specimens examined: INDIA, Arunachal Pradesh, Pasighat, Yaapgo village, 230 m amsl, 28° 03' 37.70" N longitude & 95° 17' 48.17" E latitude, *K. Jeyaprakash NEIFM-00029*, dated 20.07.2013 and forest tree plantation near Sibbo Korong river bridge, Pasighat 183 m amsl, 28° 04' 15.70" N longitude & 95° 19' 10.19" E latitude, *K. Jeyaprakash NEIFM-00062*, dated 23.07.2013.

Distribution: India (Arunachal Pradesh), China (Yunnan), Nepal and Vietnam.

Habitat and Ecology: This species is occasionally found on the slopes along stream sides with thin layer of soil, at 183 – 230 m elevations. Its local distribution is fragmented and the population is represented by few scattered individuals. There is no continuity in distribution from the northern to western populations. Only seven individuals has been are located in the evergreen forests slopes and streamlets of Yaapgo village (north-west of Pasighat town) and four individuals from forest tree plantation near Sibbo Korong River Bridge (north of Pasighat town). The commonly associated species in the habitat include *Pachira aquatica* Aublet., *Mikania micrantha* Kunth, *Phlogocanthus thirciflorus* Nees, *Cyathula prostrata* (Linnaeus) Blume, *Polygonum chinense* Linnaeus, *Amorphophallus napalensis* (Wallich) Bogner & Mayo, *Dioscorea bulbifera* Linnaeus, *Elsholtzia blanda* (Benth) Benth, *Piper sylvaticum* Roxburgh., *Chloranthus officinalis* Blume, *Mussaenda frondosa* Linnaeus and *Solanum spirale* Roxburgh.

Uses: Juice of young stem is used to quench thirst while working in forests by the people of Yaapgo village, Pasighat.

Note: *Ampelocissus hoabinhensis* differs from other *Ampelocissus* species in India by having purple bristles and brown tomentum on stem, petiole, leaf and panicles.

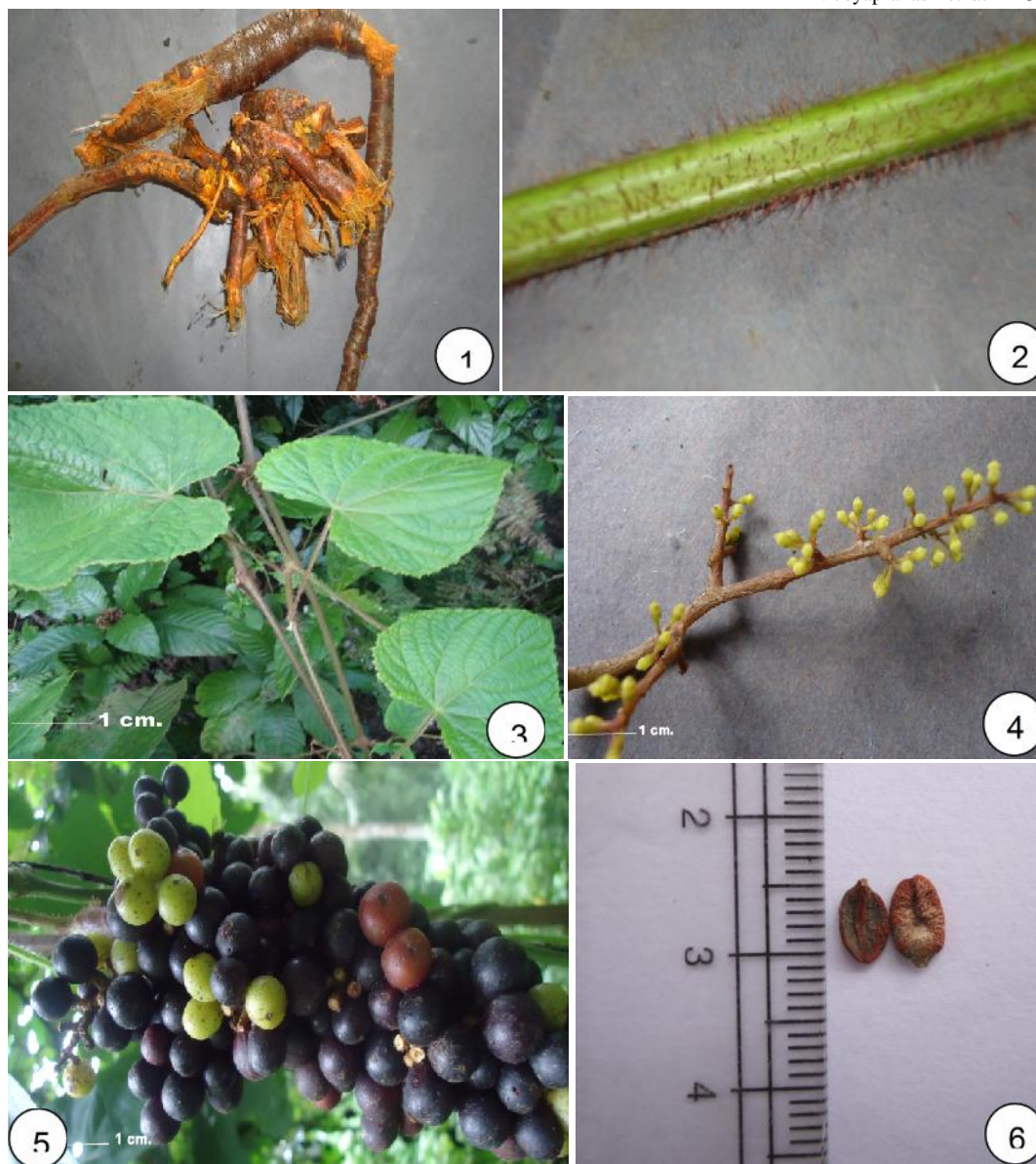


PLATE I. *Ampelocissus hoabinhensis* C.L. Li: **Fig. 1.** Root; **Fig. 2.** Habit; **Fig. 3.** Mature stem with purple bristles; **Fig. 4.** Inflorescence; **Fig. 5.** Fruits; **Fig. 6.** Seeds (ventral and dorsal view).

Key to *Ampelocissus* species in North-east India

- 1. Leaves 3-5 foliolate *A. divaricata*
- 1. Leaves simple, angled, lobed or deeply partite 2
- 2. Branchlets glabrous; leaves glabrous 3
- 2. Branchlets tomentose; leaves pubescent to tomentose 4
- 3. Lamina pentagonal or 3-5 lobed; berries globose *A. latifolia*
- 3. Lamina orbicular – ovate, unlobed; berries obovoid *A. sikkimensis*
- 4. Branchlets and petioles glandular hairy or with arachnoid tomentum and purple bristles; flowers in panicles 5

4. Branchlets and petioles with simple hairs; flowers in umbellate cymes ... *A. rugosa*
 5. Branchlets, petioles and peduncles with stiff brown or black glandular hairs; tendrils bifurcate *A. barbata*
 5. Branchlets, petioles and peduncles arachnoid tomentum with purple bristles; tendrils trifurcate *A. hoabinhensis*

Acknowledgements

The first author is thankful to the Administrative, Research & Office staffs, North Eastern Institute of Folk Medicine, Pasighat, for providing facilities and encouragement. The Head of Office and Dr. Manas Bhaumik, Scientist-C, Botanical Survey of India, Arunachal Pradesh Regional Centre, Itanagar, also acknowledged for granting permission to consult the herbarium and to use the library.

LITERATURE CITED

- Chauhan, A.S.; Singh, K.P. & Singh, D.K. 1996. *A contribution to the Flora of Namdapha, Arunachal Pradesh*. Hajra, P.K. (ed.). Botanical Survey of India, Calcutta.
- Deb, D.B. 1983. *The Flora of Tripura State*. Vol. 2. Today & Tomorrow's Printers & Publishers, Delhi. Pp. 409 – 410.
- efloras.org. *Flora of China* @ <http://www.efloras.org/florataxon.aspx.flora> (Accessed on 19.12.2013).
- Hajra, P.K.; Verma, D.M. & Giri, G.S. 1996. *Materials for the Flora of Arunachal Pradesh (Ranunculaceae to Dipsacaceae)*. Vol.1. Botanical Survey of India, Calcutta. Pp. 309 - 310.
- Haridasan, K. & Rao, R.R. 1985. *Forest Flora of Meghalaya*. Vol. 1. Bishen Singh Mahendra Pal Singh, Dehra Dun. Pp. 241 – 242.
- Kanjilal, U.N.; Das, A. & Purakayastha, C.S. 1936. *Flora of Assam*. Vol. 2. Govt. of Assam Press, Shillong. Pp. 185 - 386.
- Lawson, M. A. 1875. Ampelideae. In: Hooker, J.D. (ed.), *Flora of British India*, Vol. 1. L. Reeve & Co., London. Pp. 644 – 668.
- Li, C.L. 1997. Two new species of *Ampelocissus* Planch. (Vitaceae). *Acta Phytotax. Sin.* 35(6): 552 – 555.
- Shetty, B.V. & Singh, P. 2000. Vitaceae. In: Singh, N.P. Vohra, J.N. Hajra P.K. & Singh, D.K (eds.), *Flora of India*. Vol. 5. Botanical Survey of India, Calcutta. Pp. 247-262.
- Singh N.P.; Singh, K.P. & Singh, D.K. 2002. *Flora of Mizoram (Ranunculaceae to Asteraceae)*. Vol. 1. Botanical survey of India, Calcutta. 1: 368.
- Singh, N.P., Chauhan, A.S. & Mondal, M.S. 2000. *Flora of Manipur (Ranunculaceae to Asteraceae)*. Vol. 1. Botanical survey of India, Calcutta. P. 234.
- Srivastava, R.C. 1998. *Flora of Sikkim (Ranunculaceae to Moringaceae)*. Oriental enterprises, Dehradun. Pp. 260 – 261.
- Wen, J. 2007. Vitaceae. In: Kubitzki, K. (ed.), *The families and genera of vascular plants*. Vol. 9. Springer-Verlag, Berlin. Pp. 466 – 478.