SHORT COMMUNICATION

TAPROBANICA, ISSN 1800–427X. August, 2014. Vol. 06, No. 02: pp. 132–134. © Taprobanica Private Limited, 146, Kendalanda, Homagama, Sri Lanka. http://www.sljol.info/index.php/tapro



Andrographis longipedunculata (Sreem.) L.H. Cramer (Acanthaceae) from northwest India

As a part of survey and collection of medicinal plants of India, under the Center of Excellence Programme supported by the Ministry of Environment & Forests, the authors collected the endemic species *Andrographis longipedunculata* (Sreem.) L.H. Cramer in the states of Gujarat and Rajasthan. This species has so far not been reported in these states.

Acanthaceae are comprised of many globally important medicinal plants, and Andrographis, Wall. ex Nees consisting of over 32 species, is distributed chiefly in tropical and subtropical Asia (The Plant List, 2010). In India, it is represented by 26 species and two varieties (Karthikeyan et al., 2009). Andrographis longipedunculata was collected and described by Sreemadhavan (1967) from Nagpur, India, as Neesiella longipedunculata Sreem. Later he (Sreemadhavan, 1968) proposed the genus Indoneesiella Sreem. and a new combination I. longipedunculata (Sreem.) Sreem. Cramer (1992, 1996), while revising the Acanthaceae of Sri Lanka, assigned I. echioides (L.) Sreem. and I. longipedunculata to Andrographis. The 1968 species was subsequently renamed Erianthera longipedunculata (Sreem.) M.R. Almedia (2003). The type specimens of this collected from species were Nagpur, Maharashtra State [K. Subramanyam 4696 (holotype: CAL; isotypes: MH)]. peninsular endemic species, other than its type locality at Nagpur in Maharashtra, has also been collected from Andhra Pradesh (Pullaiah and Moulali, 1997). Tamil Nadu (Henry et al., 1987), and Karnataka (Ganesh Babu. Chitradurga District, 2011). The Andrographis in Gujarat and Rajasthan is represented by only two species *i.e.*, Andrographis echioides and A. paniculata Nees (Cooke, 1905; Shah, 1978; Bhandari, 1978; Sharma & Tiagi, 1979; Bole & Pathak, 1988; Shetty & Singh 1991).

During October-November 2012, a focused botanical survey was conducted to collect medicinal plants for the repository of FRLH, Bangalore, in the Saurashtra region of Gujarat and the Jalore District in Rajasthan. Andrographis longipedunculata was collected near the Rajkot Railway Track on the waste lands along the track bunds. These specimens were later cross checked with various Andrographis accounts given in the relevant literature (Hooker, 1885; Shah, 1978; Cooke, 1905; Matthew, 1983; Bole & Pathak, 1988; Shetty & Singh, 1991; Almeida, 2001). All samples are deposited in the herbarium (115904 & 114944) of Foundation for Revitalisation of Local Health Traditions (FRLH), Bangalore, Karnataka.

Andrographis longipedunculata (Sreem.) L.H. Cramer (fig. 1)

Phytologia 15: 271. 1967.

Herbs erect, 30–60 cm high; branchlets hispid, 4-gonous. Leaves pubescent, subsessile, elliptic to oblong, $4-5 \times 1.5-2$ cm, broadest in the middle, acute to shortly auriculate basally, subacute apically. Inflorescences axillary paniculate racemes, unilateral; bracts ellipticlanceolate; racemes usually exceeding leaves, up to 10 cm long. Flowers ca. 1 cm apart. Calyx-lobes 5, ca. 6 mm, linear-lanceolate, acute, glandular hairy. Corolla white with a pink tinge, tubular, ca. 8 mm, slightly ventricose above, 2-lipped; lobes 5, unequal, 2+3, imbricate; upper lip erect ca. 5 mm, shortly 2-fid; lower lip deflexed, 3-lobed, obtuse, ca. 3 mm. Stamens 2; filaments ca. 7 mm; anthers ca. 2 mm. Ovary obovoid, ca. 2 mm, pubescent; ovules 4; styles ca. 1.5 cm long, hairy, stigmas unequally 2-fid or linear, curved. Capsules ovoid, pointed above and narrow below, ca. 1.2 x 0.4 cm, glandularciliate. **Seeds** 4, ovoid, ca. 1.5 mm across, glabrous.

Flowering & Fruiting: October–November.

Habitat: Occasional in the open scrub forests, cultivated lands, waste lands and in fallow fields.

Distribution: Endemic to Peninsular India (Karthikeyan *et al.*, 2009) in the states of Maharashtra, Tamil Nadu, Andhra Pradesh, Karnataka, and now Gujarat and Rajasthan.



Figure 1A: Inflorescence of A. longipedunculata

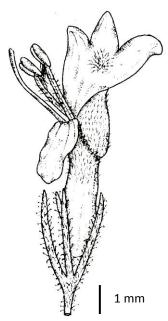


Figure 1B: Flower of A. longipedunculata

Andrographis longipedunculata was described initially from specimens obtained in Maharashtra, and later in Tamil Nadu and Andhra Pradesh. Incidentally it was also collected in Karnataka (Ganesh Babu, 2011). In the field one could easily overlook this species

because of its similarity with *A. echioides*, but can be distinguished by its elliptic-oblong leaves and much branched and longer inflorescences than the leaves. The present collection, which forms addition to Rajasthan and Gujarat, reveals the continued need for focused and intensive surveys in under or unexplored areas. Further explorations are needed in the adjacent areas or similar habitat to ascertain the conservation status of this endemic species.

Specimens studied: (Gujarat) Bagodara, along road side, Ahmedabad, 22°58′35″N, 72°32′57 ″E, 44 m, 2 Nov 2012, Umeshkumar Tiwari 115904 (FRLH); (Rajasthan) Dhavada village, Jalore, 25°31′20″N, 072°32′12″E, 240 m, 28 Oct 2012, Umeshkumar Tiwari 114944 (FRLH).

Acknowledgements

The authors are thankful to the Director (FRLHT) for the facilities and Shri D. K. Ved for constant support and encouragements. Ministry of Environment & Forests, is acknowledged for financial support under CoE project. Finally we would like to thank Shri Goyal (PCCF & WLW) for granting permission for plant collection in the State.

Literature Cited

Almeida, M. R., 2001. *Flora of Maharashtra*. Orient Press, Mumbai. IV (A): 41.

Bhandari, M. M., 1978. Flora of Indian Desert. MPS. Repros, Jodhpur, India: 466.

Bole, P. V. and J. M. Pathak, 1988. *Flora of Saurashtra*. Botanical Survey of India, Calcutta, 2: 133–139.

Cooke, T., 1905. *The Flora of Presidency of Bombay*. Botanical Survey of India, Calcutta. 2: 331–339.

Cramer, L. H., 1992. Name changes in the Acanthaceae of India and Ceylon (Sri Lanka). *Journal of the National Science Council of Sri Lanka*, 20: 59–69.

Cramer, L. H., 1996. Notes on Sri Lankan Acanthaceae. *Kew Bulletin*, 51: 553–556.

Ganesh Babu, N. M., 2011. Flora and Ethnobotany of Chitradurga District, Karnataka.

Unpublished Ph. D. Thesis, FRI University, Dehradun.

Henry, A. N., G. R. Kumari, and V. Chithra, 1987. *Flora of Tamilnadu, India*. Botanical Survey of India, Kolkata: 2: 150.

Hooker, J. D., 1885. *Flora of British India*. Authority of the Secretary of State for India in Council, 4: 229–237.

Karthikeyan, S., M. Sanjappa, and S. Moorthy, 2009. *Flowering plants of India Dicotyledons*, vol 1: 3. Botanical Survey of India, Kolkata.

Matthew, K. M., 1983. *The flora of the Tamilnadu Carnatic*, Part II. The Rapinat Herbarium, St. Joseph's College, Tiruchirapalli: 1181–1182.

Pullaiah, T. and D. A. Moulali, 1997. *Flora Andhra Pradesh (India)*. Scientific Publishers, Jodhpur, India: 2: 715.

Shah, G. L., 1978. *Flora of Gujarat State*. Sardar Patel University, Vidyanagar, Gujarat. 1: 489–492.

Sharma, S. and B. Tiagi, 1979. Flora of North–East Rajasthan. Kalyani Publishers, New Delhi.

Shetty, B. V. and V. Singh, 1991. *Flora of Rajasthan*. Botanical Survey of India, Calcutta, 2: 571–576.

Sreemadhavan, C. P., 1967. *Neesiella* – A new genus of Acanthaceae. *Phytologia*, 15: 270–271.

Sreemadhavan, C. P., 1968. *Indoneesiella* – A substitute name in Acanthaceae. *Phytologia*, 16: 466.

The Plant List, 2010. Acanthaceae: Angiosperms (Flowering Plants). Kew, London.

Submitted: 13 June 2013, Accepted: 26 Oct. 2013 Section Editor: James L. Reveal

U. Tiwari ^{1,2} & K. Ravikumar¹

¹ Foundation for Revitalisation of Local Health Traditions (FRLHT), Institute of Ayurveda & Integrative Medicine, No.74/2, Jarakbande Kaval, Bangalore, Karnataka, India ² E-mail: tigerumesh11@gmail.com