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Short communication

Andrographis longipedunculata (Sreem.) L. H. Cramer (Acanthaceae)- an addition to the flora of Odisha

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ABSTRACT

Andrographis longipedunculata (Sreem.) L. H. Cramer (Acanthaceae) is reported here as a new distributional record for the state of Odisha, India. A detailed note on the botany, nomenclature, ecology, phenology and distribution of this species is provided in this paper.

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The family Acanthaceae (including Avicenniaceae and Mendonciaceae), with about 212 genera and 3175 species, is a large flowering plant family in the world. Most of the species of the family are distributed in the tropical and subtropical regions of the world and only a few in temperate regions (Mabberley, 2008). In India, Acanthaceae is represented by 593 species under 47 genera (Karthikeyan *et al.*, 2009) and 93 species belonging to 29 genera are reported to occur in Odisha (Saxena, & Brahmam, 1995). Recently, while revising the family Acanthaceae of Sri Lanka, Cramer (1996) enumerated 32 species of *Andrographis* Wall. ex Nees, which includes two species earlier described under the genus *Neesiella* Sreem. In India, the genus is represented by 28 taxa with greater concentration of species in Peninsular India (Karthikeyan *et al.*, 2009). Of these, 4 species are reported to occur wild in Odisha (Saxena, & Brahmam, 1995).

During floristic studies in Odisha, we collected some interesting specimens of Acanthaceae family from Khandapada Forest Range of Nayagarh District, Odisha. On critical study of their morphological characters and consultation of relevant literature (Kumari, 1987; Pullaiah,

& Moulali, 1997; Karthikeyan *et al.*, 2009; Tiwari, & Ravikumar, 2014), the specimens were identified as *Andrographis longipedunculata* (Sreem.) L. H. Cramer. A thorough scrutiny of literature on flora of Odisha (Haines, 1922; Saxena & Brahmam, 1995) revealed that this species has not yet been reported from within the geographical boundary of Odisha State and thus, turned out to be a new plant record for Odisha. A detailed botanical description along with notes on ecology, phenology, distribution and nomenclature are provided below to facilitate easy identification of the species in the field. The herbarium specimens have been deposited in the Herbarium of the Regional Plant Resource Centre (RPRC), Bhubaneswar.

***Andrographis longipedunculata* (Sreem.) L. H. Cramer** in Kew Bull. 51(3): 555. 1996; Karthikeyan *et al.*, Flowering Plants of India, Dicotyledons 1: 3. 2009; Tiwari, & Ravikumar, in Taprobanica 6(2): 132. 2014; Singh, *et al.*, Endemic Vascular Plants of India 67. 2015. *Neesiella longipedunculata* Sreem. in Phytologia 15(4): 271. 1967. *Indoneesiella longipedunculata* (Sreem.) Sreem. in Phytologia 16(6): 466. 1968; K. M. Matthew, Fl. Tamilnadu Canatic 3: 1182. 1983; Kumari in A.N. Henry *et al.*, Fl.

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Tamil Nadu 2: 150. 1987; Moulai, in T. Pullaiah & D. A. Moulali, Fl. Andhra Pradesh 2: 715. 1997. *Erianthera longipedunculata* (Sreem.) M. R. Almeida, Fl. Maharashtra 4A: 41. 2003. (Fig. 1)

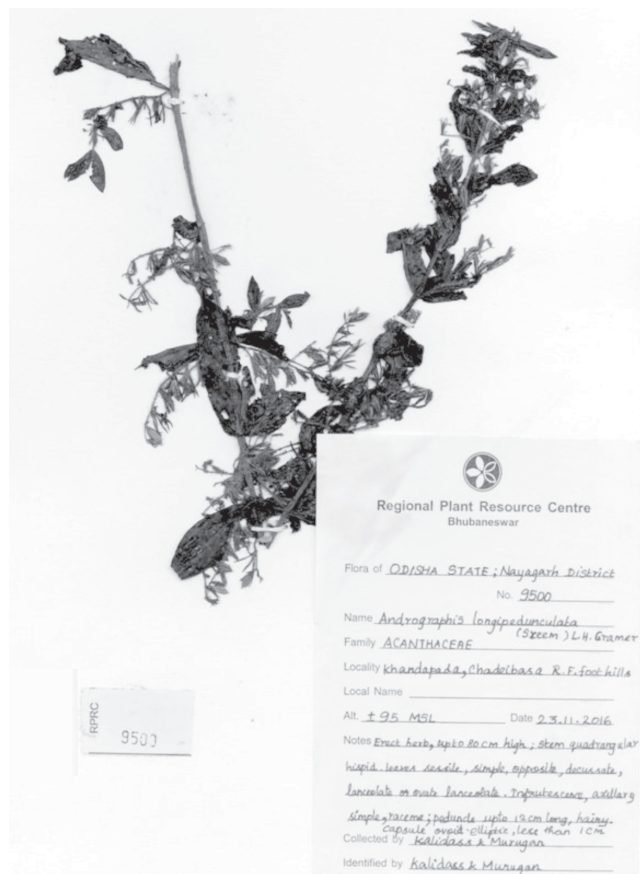


Fig. 1: *Andrographis longipedunculata* (Sreem.) L. H. Cramer (Syn: *Neesiella longipedunculata* Sreem.)

Types: India, Maharashtra, Nagpur, K. Subramanyam 4696A (Holotype in CAL) and K. Subramanyam 4696B-G (Isotype in MH)

Erect herbs, up to 50 cm high; stem quadrangular or angular, unbranched, wholly hispid. Leaves sessile, simple, opposite, decussate, lanceolate or ovate-lanceolate 4-6 × 1-2 cm long, apex acute to sub-acute, obtuse to sub-cordate at the base, margin entire, sub-coriaceous, sparsely hispid on both sides; lateral nerves 5-7 pairs; petiole absent. Inflorescence axillary, simple raceme, branched; peduncle up to 12 cm long; pedicel erect, sub-sessile or 1 mm long, glandular hairy-hispid. Capsule ovoid-elliptic, less than 1.5 cm, glandular hairy-hispid, apex pointed, with persistent calyx ca. 1 cm diam., 5-lobed, each lobe, 9 mm long, linear, glandular-hairy. Seeds 4, non-endospermous, glabrous, reticulately pitted.

Flowering and Fruiting: November - December

Ecology: The species was found growing in open scrub forests in association with *Andrographis paniculata* (Burm.f.) Wall. ex Nees, *Tridax procumbens* (L.) L., *Caesalpinia bonduc* (L.) Roxb. emend. Dandy et Exell., *Spermacoce* spp. and other grasses and sedges.

Distribution: INDIA (Maharashtra, Tamil Nadu, Andhra Pradesh, Karnataka, Gujarat, Rajasthan and Odisha).

Specimens examined: INDIA, Odisha State, Nayagarh District, Khandapada Forest Range, Chadeibasa R.F. foot hills towards temple along roads, N20°15.345'; E 085°10.689', ±95 MSL, Dt. 23. 11. 2016, Kalidass & Murugan 9500 (RPRC).

Notes: *Andrographis longipedunculata* (Sreem.) L. H. Cramer is closely related to *Andrographis echioides* (L.) Nees, but can be distinguished by its elliptic-oblong leaves and much branched and longer inflorescences than the leaves.

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References

- Cramer, L. H. (1996). Notes on Sri Lankan Acanthaceae. *Kew Bull.* 51(3): 553-556.
- Haines, H. H. (1922). *Botany of Bihar and Orissa*. Vol. 4, Adlard & Son & West Newman, Ltd., London.
- Karthikeyan, S., Sanjappa, M. and Moorthy, S. (2009). *Flowering plants of India- Dicotyledons*, 1: 3. Botanical Survey of India, Kolkata.
- Kumari, G. R. (1987). Acanthaceae: In: Henry, A. N., G. R. Kumari, and V. Chithra (Eds.). *Flora of Tamilnadu, India*. Botanical Survey of India, Kolkata: 2: 138-163.
- Mabberley, D. J. (2008). *Mabberley's Plant-Book: A portable dictionary of plants, their classification and uses*. 3rd Edition. Cambridge University Press, New York.
- Pullaiah, T. and Moulali, D. A. (1997). *Flora of Andhra Pradesh (India)*. Vol. 2, Scientific Publishers, Jodhpur.
- Saxena, H.O. and Brahmam, M. (1995). *The Flora of Orissa*, Vol. 2, RRL & Orissa Forest Development Corporation Ltd., Bhubaneswar.
- Sreemadhavan, C. P. (1967). *Neesiella* – A new genus of Acanthaceae. *Phytologia*, 15: 270-271.
- Tiwari, U. and Ravikumar, K. (2014). *Andrographis longipedunculata* (Sreem.) L.H. Cramer (Acanthaceae) from northwest India. *Taprobanica* 6(2): 132-134.