

Occurrence of *Tiliacora racemosa* Colebr. in North-West Uttar Pradesh

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ABSTRACT

While inventorying the angiosperms of north-west Uttar Pradesh, India, I came across an interesting collection of *Tiliacora racemosa* Colebr. for the first time. I observed a non-invasive population of *Tiliacora racemosa* from district Saharanpur in 2014 (near Saharanpur, north-western Uttar Pradesh, India). After critical evaluation and studies, it has been proved to become a new record from north-west Uttar Pradesh which is given here with images.

Keywords: *Tiliacora*, Saharanpur, North-West Uttar Pradesh, India.

1. INTRODUCTION

The flowering plants of India comprise about 15,000 species and represent 6% of the world known flowering plants (Nayer and Sastry, 1987). About 315 families (of ca. 400 now defined) and 2250 genera of flowering plants are known to occur in India in different ecosystems. Upper Gangetic Plain is the area drained by the Ganges, Yamuna, etc. from Saharanpur and Delhi to the river Kosi in the East, excluding Rajasthan and Madhya Pradesh (Hooker, 1872-1897).

The Menispermaceae are a family predominantly of lianas of tropical lowlands, comprising c.70 genera and c.420 species (Heywood et al., 2007). The family Menispermaceae almost occur entirely in tropical and subtropical regions with a few species in temperate regions. India has 3 species of the genus *Tiliacora* (Santapau and Hanery, 1976). The genus *Tiliacora* is endemic to Africa. It also extends into India, Myanmar, Pakistan and Sri Lanka. *Tiliacora* is a genus of polypetalous plants, consisting of 22 species in world, 19 species are found in Africa, 3 in Asia including tropical India. In India *Tiliacora racemosa* is found in Andhra Pradesh, Bihar, Kerala, Madhya Pradesh, Odisha, Rajasthan, Tamil Nadu, eastern Uttar Pradesh, and West Bengal, but there is no record of *Tiliacora racemosa* Colebr. (Synonym *Tiliacora acuminata* Miers) from north-west Uttar Pradesh till today. I observed this species at four different sites near Saharanpur.

2. REVIEWS

The critical review of literature reveals that the work on angiospermic floras covering Upper and Lower Gangetic Plain was undertaken by various workers in the past viz. Hooker, 1872- 1897; Hajra and Mudgal, 1997; Bantham and Hooker, 1862-1883; Duthie, 1893; Maheshwari, 1963; Kumar, 2001; Mishra and Verma, 1992; Paliwal and Singh, 1982; Sumeet et al., 2010 and Rawat, 2014. On the basis of available literature, scrutinizing the different herbaria and field visits it was observed that various plants like *Ischaemum rugosum*, *Neptunia oleracea*, *Derris scandens* var. *saharanpurensis*, *Hygroryza aristata*, *Erianthus hookeri*, *Mucuna gigentia*, *Leersia haxandra* etc in Saharanpur forest division have become threatened. Scrutinizing the different herbaria of north-west India, it has been found that collections of *Tiliacora racemosa* are from eastern Uttar Pradesh like, north-south Kheri, Behraich, Dhudhwa etc. One specimen was collected from west Nepal and one by W. R. Hustoe from Delhi in 1924. Besides, one specimen was collected from Lahore by P. N. Parker in 1915. Recently one plant was reported from Muradabad in cultivated state (Singh et al., 2011). Here is a new record of *Tiliacora racemosa* in wild from Saharanpur (U.P.). The specimen has been examined carefully and images have been taken from natural habitat (Figure.1). I observed four sites of this species in wild near railway track of Saharanpur.

3. BRIEF DESCRIPTION

Tiliacora racemosa Colebr. a lianas with glabrous acuminate leaves, 3-5 secondary nerves at the base of main nerve; inflorescence axillary, panicle, pseudoracemes; flowers unisexual, small, yellow; sepals 9, in 3 series, similar in both sex, outer series smaller to inner, petals 6; stamen 6, in two series; carpel 3-12; fruit drupe, reddish in colour (Image-1).

4. CONCLUSION

Developments in the study of angiospermic plants over the past few decades in district Saharanpur have not greatly clarified many aspects related to present angiosperms. The systematic study of *Tiliacora racemosa* and other genus of the family Manispermaceae will allow scientists, phytochemists, evolutionists to develop models for revealing evolutionary mechanisms and biogeography in India. The present discovery of this polypetalous plant has revealed astonishing details about its distribution in district Saharanpur. It is in this spirit that the author sincerely hopes that this manuscript may be useful to others in preparation of herbal medicine since the roots extract of this species is extremely effective as antidote for venomous snake-bite. Attempts must be made for the conservation of this species in this area so that it may be added in the flora of this region to maintain biodiversity. The study on this taxon is untouched in this area. So taxonomical attention, goals and principles of making biodiversity data of this taxon in north India must be open and universal.

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REFERENCES

1. Bentham G, Hooker JD. Genera Plantarum, etc., London, 3 Vols, 1862-1883
2. Duthie JF. Flora of the Upper Gangetic Plain and of the Adjacent Siwalik and Sub-Himalayan Tracts, Calcutta, 1893
3. Hajra PK, Mudgal V. Plant diversity hotspots in India – An Overview, BSI India, 1997
4. Heywood VH, Brummitt RK, Culham A, Seberg O. Flowering plants families of the world. Royal Botanic Gardens, Kew, 2007
5. Hooker JD. The flora of British India, London, 1872-1897
6. Kumar S. Flora of Haryana, BSMPS, Dehradun, 2001
7. Maheshwari JK. The flora of Delhi, CSIR, New Delhi, 1963
8. Mishra BK, Verma BK. The flora of Allahabad District, U.P. India, BSMPS, Dehradun, 2009
9. Nayar MP, Sastry RK. Red data book of Indian plants, 1; Botanical Survey of India, Calcutta, 1987
10. Paliwal NK, Singh VP. A Contribution to the Angiosperm Flora of Moradabad District, *J. Economic & Taxonomic Botany*, 1982, 3, 651-861.
11. Rawat DS. New Additions to the flora of Uttarakhand, India. *Journal of Threatened Taxa*, 2014, 6, (8): 6101-6107.
12. Santapau H, Hanery AN. A dictionary of the flowering plants of India. INSDOC New Delhi-110012, 1976
13. Singh RP, Rai N, Tiwari VK. A Study of Polypetalous Plant Diversity of Moradabad District, Uttar Pradesh, India. *Webmed Central ECOLOGY*, 2011, 2, (11):WMC001892.
14. Sumeet G, Sharma CM, Rana CS, Ghildiyal SK, Suyal S. Phytodiversity (Angiosperms and Gymnosperms) in Mandal – Chopta Forest of Garhwal Himalaya, Uttarakhand, India, *Nature and Science*, 2010, 8, (1): 1 – 17

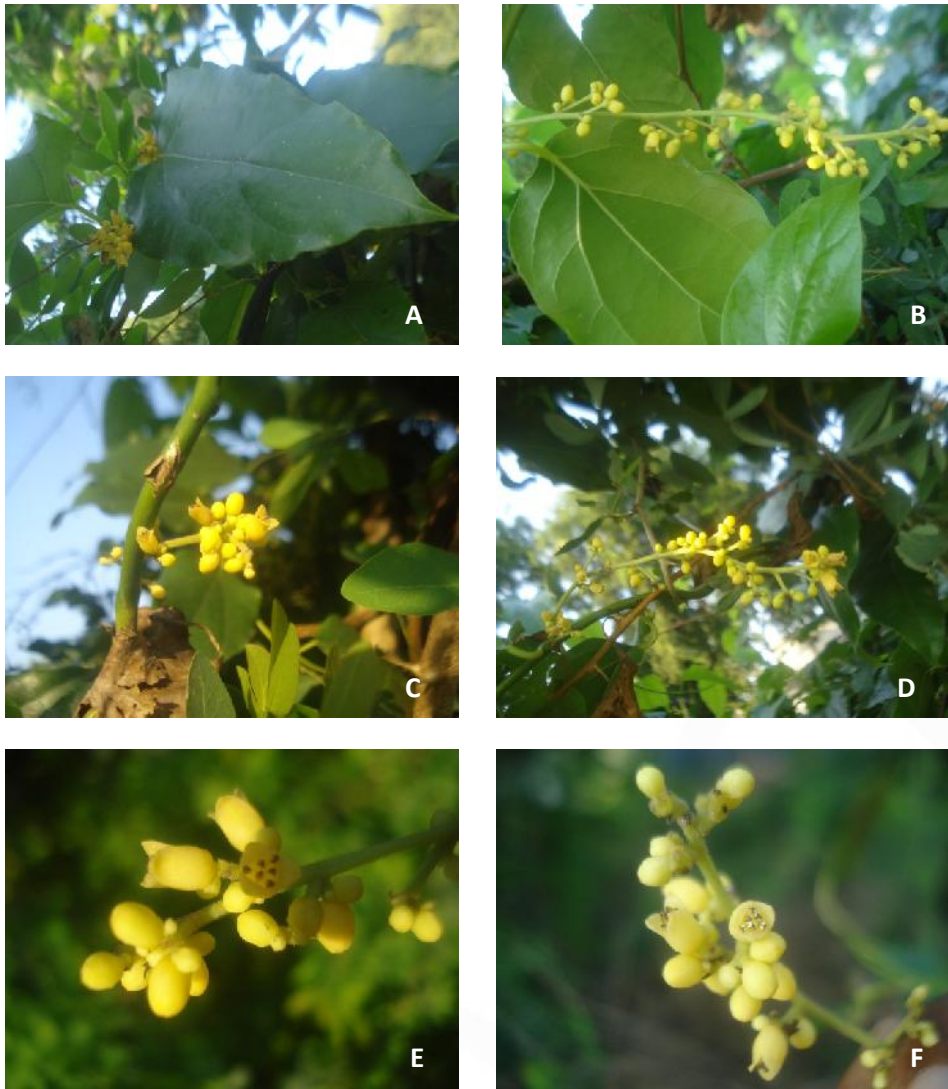


Figure 1

- A. Leaf; adaxial view
- B. Leaf; abaxial view
- C. Stem; with inflorescence
- D. Inflorescence; panicle raceme
- E. Male flowers; 3-7 in clusters
- F. Anther dehiscence; longitudinally