Taxonomy of a monotypic genus *Indopiptadenia* (Leguminosae-Mimosoideae)

OMESH BAJPAI¹, AWADHESH K. SRIVASTAVA², ARUN K. KUSHWAHA¹ & LAL BABU CHAUDHARY³**

¹ Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow-226 001, India. E-mail: omeshbajpai@gmail.com
² Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow-226 001, India. E-mail: aanshul.84@rediffmail.com
³ Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow-226 001, India. E-mail: akushwaha072@gmail.com
⁴ Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow-226 001, India. E-mail: dr_lbchaudhary@rediffmail.com
* Corresponding author

Abstract

*Indopiptadenia*, a monospecific genus with the species *I. oudhensis*, is confined to the Indo-Nepal border area in scattered populations along the Himalayan foothills between 156–908 m elevation. *I. oudhensis* has been little studied since its discovery in 1874. The taxonomy of the genus is reexamined here with extensive notes on diversity, distribution, phenology, ecology and conservation status based on exhaustive field survey and examination of herbarium specimens. A full description including data on many new characters and encompassing all morphological variations is provided to better characterize the species so that its correct systematic position can be ascertained and provide the basis for proper conservation strategies. Placed in the tribe *Mimoseae*, the species shows more affinity towards the *Newtonia* group than the *Piptadenia* group. However, it differs from the former in having unarmed to armed stem, uni- or bijugate leaflets, absence of stemonozone and pods that dehisce generally by rupturing of the pod valves over the seed chambers to leave a persistent replum. The IUCN category Near Threatened (NT) is assigned to the taxon.

Key words: South Asia, endemic, *Mimoseae*, *Indopiptadenia oudhensis*, Near Threatened

Introduction

*Indopiptadenia* Brenan (1955: 178), is a monotypic genus with the species *Indopiptadenia oudhensis* (Brandis [1874: 168]) Brenan (1955: 178) and is placed in the subfamily Mimosoideae, family Leguminosae (Brenan 1955; Hutchinson 1964; Lewis & Elias 1981; Sanjappa 1992; Kumar & Sane 2003; Luckow 2005). *I. oudhensis* is endemic to the Terai region of the Indo-Nepal border area in the Bhabar zone along the Himalayan foothills in tropical moist deciduous forest (Champion & Seth 1968). Biswas & Chandra (1997) and Prakash et al. (2009) have incorrectly suggested that the genus *Indopiptadenia* is found in America and Africa.

*I. oudhensis* is a striking evergreen small to medium sized tree with upright branches and profuse pendulous branchlets and leaves. Recent surveys (Kashyap 2009; Prakash et al. 2009; Singh 2010) in India claim that during the last more than 100 years the population of the trees has substantially decreased due to exploitation by local people, habitat destruction and low regeneration ability of the species in natural habitats, and that as a result the species has become rare and threatened.

During the course of study over the last 5 years for the tree flora of Uttar Pradesh, India, the authors have regularly visited different forest areas where they discovered populations of *I. oudhensis* in the forest of Balrampur district adjacent to the Nepal border. The plants were also discovered in the adjacent area within Nepal in Dang district. Subsequently, the species was found in additional localities in Champawat district of Kumaun region in Uttarakhand State in India. After studying the available information (Duthie 1903, 1906; Biswas & Chandra 1997; Prakash et al. 2009) it was realized that although the species was discovered more than 100 years ago, it has been...


**Acknowledgements**

The authors are thankful to Dr. C. S. Nautiyal, Director, CSIR-National Botanical Research Institute, Lucknow, India for facilities and the Department of Science & Technology, Government of India, New Delhi for financial support. We are also grateful to Dr. V. Sampath Kumar, IBLO, Herbarium, Roy. Bot. Gard. Kew, England, UK, Dr. P. Lakshminarasimhan and Dr. Subir Bandopadhyay, Botanical Survey of India, Kolkata, India, Prof. Mohan Siwakoti, Central Dept. of Botany, Tribhuvan University, Kathmandu, Nepal and Mr. Ganga D. Bhatt, National Herbarium and Plant Laboratories, Lalitpur, Kathmandu, Nepal for providing necessary literature and information on the species. The curators of herbaria mentioned in the work are also duly acknowledged for granting permission for herbarium consultation. We thank the editor of the paper Ruth P. Clark, Herbarium, Royal Botanic Gardens, Kew and unknown reviewers for the critical revision of the manuscript and useful comments and suggestions.

**References**