

EASTERN HIMALAYAS, A TREASURE TROVE OF BALSAMS, YIELDS 20 NEW SPECIES

Relevant for: Environment | Topic: Biodiversity, Ecology, and Wildlife Related Issues

Nature's delight: There are about 230 species of Balsams found in India and majority of them are found in the eastern Himalayas and Western Ghats. These species need proper conservation initiatives as they are highly vulnerable, especially to climate change. They are mostly found in stream margins, moist roadsides, near waterfalls and wet forests. Special Arrangement

Between 2010 and 2019, botanists and taxonomists working on Impatiens -- a group of plants commonly known as Balsams or jewel-weeds -- discovered 23 new species from the eastern Himalayas. Consisting of both annual and perennial herbs, balsams are succulent plants with high endemism. Because of their bright beautiful flowers, these group of plants are of prized horticultural significance.

The details of the new species, including several new records, have been highlighted in the book, recently published by the Botanical Survey of India.

Authored by Rajib Gogoi and Souravjyoti Borah and other BSI scientists, the book presents 83 species, one variety, one naturalised species and two cultivated species of Balsams. Running over 200 pages, the publication provides a pictorial guide which can help ordinary people identify these group of plants. Of the 83 species described, 45 are from Arunachal Pradesh, 24 from Sikkim and 16 species common to both states.

Mr, Gogoi, who heads the Sikkim Himalayan Regional Centre of BSI and is behind most of these discoveries, said that the study on Impatiens was started by botanists like A. P. de Candolle William Roxburgh in the early 19th century. Later, one of the most renowned botanists of all times, J.D. Hooker, worked on Indian and southeast Asian Impatiens from 1901-1911.

Overcoming challenges

It is also interesting to know how these scientists overcame difficulties in identifying these beautiful groups of plants. Prior to 2010, specimens of Impatiens that had potential of being identified as new species would be collected but the dried up specimens looked identical to the species discovered earlier and their effort yielded no results.

"After a few failed attempts, we understood where the problem lay and decided that the plants should be dissected in the field before being taken to the herbarium," Mr. Gogoi said.

Other than high endemism, what sets Impatiens apart is their sensitivity to climate change.

"Most of the species of Impatiens cannot endure persistent drought or extended exposure to direct sunlight. As a result Impatiens species are typically confined to stream margins, moist roadsides, waterside boulders, near waterfalls and wet forests," Mr. Borah said.

Scientists and botanists behind the publication said the discovery of these new species was not enough. "What is required is further research to create different hybrids with an adaptability to thrive in hot climate," Mr. Gogoi said.

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