

Scientists discover new parasitic plant in Nagaland

Gleadovia konyakianorum is a root parasite that grows up to 10 cm in height and bears white, tubular flowers.

Scientists have discovered a new species of parasitic flowering plant that has no chlorophyll, and survives by feeding on another species of plant that does (chlorophyll helps a plant make its own food using sunlight).

The species, named *Gleadovia konyakianorum*, in honour of the Konyak tribe of Nagas, was identified during a botanical exploration earlier this year near Tobu town of Mon district in eastern Nagaland.

“It is a holoparasite [complete parasite] that derives its entire nutritional requirement from the host plant, which is a *Strobilanthes* species. The plant was found in the semi-evergreen forest at an altitude of 1,500-1,600 metres,” said Dilip Kumar Roy, a scientist with the Botanical Survey of India (BSI).

Along with Mr. Roy, two others – N Odoyo, also from the BSI, and a Russian scientist, Leonid V. Averyanov – have published the details of the newly discovered species in the journal *Phytotaxa*.

Though it has no chlorophyll, the plant has a vascular system and extracts its nutrition from the host plant with the help of a haustorium, the scientists said. A haustorium is a specialised structure with which plant parasites attach themselves to the tissue of host plants and derive nutrition.

Gleadovia konyakianorum is a root parasite that grows up to 10 cm in height, and bears white, tubular flowers. Interestingly, this is only the fourth species from the genus *Gleadovia* to be found in the world. The other three are *Gleadovia banerjiana* (discovered in Manipur), *Gleadovia mupinense* (found in China) and *Gleadovia ruborum* (discovered in Uttarakhand and also reported from China).

The white flowering parasite was found in a group of 15-20 plants, and since the species hasn't been reported anywhere else, scientists have described its status as 'data deficient' as per the International Union for Conservation of Nature Red List of Threatened Species Criteria.

“Parasitic plants are often referred to as curious plants as they steal their entire nutritional requirement from the host. Not only are they rare but they are crucial evolutionary links in the plant kingdom that attest to Darwin's theory of survival of the fittest,” said Rajib Gogoi, a scientist from BSI's central national herbarium.

Plant parasites are differentiated as stem and root parasites. Common stem parasites found in India are *Loranthus* sp, on Mango trees, and *Cuscuta reflexa*, a climber. Among the root parasites are *Sapria himalayana*, a rare holoparasitic flowering plant found in Arunachal Pradesh and Meghalaya.

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