

PARASITIC PLANT FOUND IN NICOBAR ECO HOTSPOT

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Flower buds of *Septemeranthus* .Special Arrangement

A new genus of a parasitic flowering plant has recently been discovered from the Nicobar group of islands. The genus *Septemeranthus* grows on the plant species *Horsfieldia glabra* (Blume) Warb. The parasitic flowering plants have a modified root structure spread on the stem of the tree and are anchored inside the bark of the host tree.

The plant was found on the periphery of the tropical forest in one of the biodiversity hotspots referred to as the Nicobar group of islands separated from the Andaman group of Islands by a wide gap of 160 km with heavy tidal flows.

Heart-shaped leaves

The genus *Septemeranthus* has a distinct vegetative morphology, inflorescence architecture and floral characters. The leaves of the plant are heart-shaped with a very long tip and the ovary, fruit and seeds are 'urceolate' (earthen pot-shaped). The flowers have five persistent bracts having conspicuous margins. The name *Septemeranthus* is derived from the Latin word 'septem' meaning 'seven', referring to the arrangement of flowers. The details of the discovery were published in the *Journal of Botanical Taxonomy and Geobotany Feddes Repertorium* . The genus belongs to the family Loranthaceae, a hemi-parasite under the sandalwood order Santalales and is of widespread importance. Plants which are hemi-parasites are partially dependent on their host plants for nutrition. For instance, the newly discovered plant that derives nutrients from its hosts has green leaves capable of photosynthesis.

Feeds birds

Loranthaceae is currently represented by nine genera and are found all across the country. What makes the new genus unique is that it is endemic only to the Nicobar group of islands. Lal Ji Singh, Joint Director, Botanical Survey of India, who has discovered the genus, said, " During field studies, I found the birds consume viscous seeds of this new genus and seeds have potential of pseudo viviparous germination that deposit on the leaves and branches of their same plant which is already attached to host plants. After germination, the life cycle of the genus starts all over again."

Hemi-parasites include are commonly referred to as mistletoes that contain 18 families, 160 genera and over 2,200 species. They need a host tree or shrub in order to thrive and exhibit a worldwide distribution in tropical as well as temperate habitats that evolved approximately five times in the order and are important in forest ecology, pathology and medicine. They play an important role as they provide food for frugivorous birds. In addition to *Septemeranthus*, four other genera on non-parasitic plants, *Nicobariodendron* (Hippocrateaceae), *Pseudodiplospora* (Rubiaceae), *Pubistylis* (Rubiaceae), *Sphyranthera* , (Euphorbiaceae) have also been discovered earlier from Nicobar group of islands, highlighting the ecological significance of the region. Recently a new species in the hemiparasitic family Loranthaceae, *Dendrophthoe lalji* have also been discovered from the Nicobar group of islands.

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