



Triphyophyllum peltatum

Carnivorous in Contingency

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MANY times we might have heard of carnivorous plants that capture insects or small creatures using different tactics. Plants employ different methods to meet their nutritional needs, such as pitfall traps, strong smells, and camouflaging themselves to resemble flowers. However, there is a unique plant named *Triphyophyllum peltatum* that becomes carnivorous in response to certain conditions in order to survive or to address its nutritional deficiencies. A specific nutrient deficiency triggers this rare behaviour in these plants.

Triphyophyllum peltatum is a rare and endangered species which is native to Sierra Leone and Ivory Coast in West Africa. It belongs to the plant family Dioncophyllaceae, which is characterised by double-hooked leaves. Interesting

to note that the plant is the largest of all carnivorous plants. As suggested by its genus name, *Triphyophyllum*, it produces three distinct types of leaves — Young shoots develop either oblanceolate or glandular leaves. When the plant matures and grows as a vine, its leaves develop hooks that help it climb. The leaves of the carnivore-ecomorph type are glandular and carry stalked and sessile glands. These glands secrete a clear, viscid fluid containing proteases, peroxidases, esterases, and acid phosphatases. Many insects become stuck to these glands.

Although the plant has long been recognised for its insect-eating behaviour, the specific reason behind its occasional carnivorous behaviour has remained elusive due to the difficulties in cultivating it under controlled conditions for observation and experimentation. But, scientists at