

## **SATYRIUM NEPALENSE D. DON IN THE UPPER NILGIRI PLATEAU, WITH EMPHASIS ON ITS ETHNOBOTANIC LINK WITH THE TODA TRIBALS**

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The tuberous, terrestrial orchid species, *Satyrium nepalense*, is found both in the Himalaya as well as on the hills of southern India. This distribution makes it unique in that it is one of the few orchids common to both the Himalaya and the Western Ghats.

The tubers are found in remarkable shapes and sizes. There are one to three tubers per plant. The leaves are generally only two to three in number.

The inflorescence is terminal - up to 30cm long and dense. The flowers are mildly fragrant and vary widely in hue from pure white to dark pink. However, the light and dark pink flowers predominate greatly over the white ones in the upper Nilgiris. The scape is covered by large foliaceous bracts becoming progressively smaller upwards.

The dorsal sepal and lateral sepals average 5 x 3mm. The lateral petals average 5 x 1.5mm. The lip is hooded and with two distinct spurs.

Distribution (Nilgiris): Seen on the grassy downs, especially on the western fringes, in and around the Mukurti National Park at an altitude of 1800-2300m. Within the Park, it is the dominant flower orchid during September.

Threats: Until quite recently, these plants were found in profusion in the Wenlock Downs and adjacent areas. Now, its distribution has become patchy in the above areas. This is due to large scale planting of exotics like eucalyptus and wattle. In fact, all over the upper Nilgiris plateau, where exotic tree plantations have altered the grassland, this handsome orchid has completely disappeared. In other areas of the plateau, flooding of huge areas by hydel reservoirs has also destroyed large areas of the species' habitat.

The only area where this orchid is now seen in profusion after the southwest monsoon is the Mukurti National Park area. This area is relatively free from exotics.

Exploitation: The Todas are a small tribe of barely a thousand people who have preserved their environment well. Although the Todas have collected the tubers of this plant for millenia, the collections are not the reason for the species becoming scarce. The present generation of Todas have little knowledge of its medicinal properties and hence do not extract it at all. The decline is directly related to the loss of habitat.

Ethnobotanic and medicinal observations vis-a-vis the Todas: To the Toda tribals, the tubers of this plant have had immense medicinal value. It is a great energiser in a sort of way that Ginseng has been to other people. In comparison, it has far greater medicinal value and its energising effects though not immediate, are more lasting. There are many Toda stories of its energising properties and the effect it has had on Todas of the past and until the previous generation. The medicinal value of these tubers is yet to be evaluated scientifically.

The tubers are to be dug up not during the peak flowering season that is September, but in late November/early December, just before the onset of hoar frost. At this stage, the flowering is over and only dry stems are seen. the timing has to be perfect as even a few days of frost will ensure the disappearance of the stems. The gathered tubers are of fascinating shapes - not unlike those of ginseng. These are first completely dried and then powdered carefully. A level tea spoon (not heaped) of this powder is boiled with 300ml. of milk first thing in the morning on rising. The finely powdered grains expand phenomenally and have to be stirred and crushed. The mixture becomes thick after a few minutes and has to be eaten with a spoon!

As far as the attractive flowers are concerned, the Todas have noted their uniqueness from ancient times. They have been fascinated by the presence of unique twin spurs. To a Toda whose life and culture revolves around his buffaloes, a plucked flower with its curved double spurs strongly resembles a bullock's horns (a very rare sight for a Toda in the upper Nilgiris). Hence these plants are traditionally called *Eshkwehhdr*, which literally means 'bullocks horns', although the newer name of *Salamaestri* has also crept in.

Suggestions:

1. The medicinal properties of these tubers should be scientifically analysed.
2. The plantations of exotic trees should be removed in a phased manner so that the grasslands could revert in time.