

Notes on a threatened Orchid(*Satyrium* Sw.) in Sikkim Himalaya

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Sikkim, a small state in Eastern Himalaya enjoys the floristic elements of tropical, subtropical, temperate and alpine flora in the altitudinal range of 200-5000m. Orchids having fascinating flowers of diverse morphological shape, size and colour usually grow either as epiphytes or terrestrials with a few saprophytes. The state possess 523 species of orchids. *Satyrium* Sw., a terrestrial orchid has *ca* 170 species distributed in South Africa, Madagascar, Arabian peninsula and in tropical Asia. Only 1 species with 2 varieties are represented in India, particularly in western & eastern Himalaya including Sikkim.

Satyrium nepalense D.Don var. *nepalense* is widely distributed in J&K, Himachal Pradesh, Uttarakhand, Nepal, Bhutan, Sikkim & Arunachal Pradesh. However, *Satyrium nepalense* var. *ciliatum* (Lindl.) Hook.f. is uncommon and restricted to some pockets of Uttarakhand, Nepal, Bhutan & Sikkim. During a plant collection tour in September 2007 to Tsomgo Lake catchment area of East Sikkim, this terrestrial orchid was spotted, studied in the field, and herbarium specimens were collected, preserved, processed and deposited at BSHC as a reference material.

Satyrium nepalense var. *nepalense* with pink flowers grow luxuriantly, whereas *Satyrium nepalense* var. *ciliatum* has only been observed in one patch with 8-10 plants. A brief description of this interesting and threatened orchid with photographs and relevant data is provided below for easy identification and attention for its protection by *in-situ* & *ex-situ* conservation measures as the population in wild is dwindling fast due to indiscriminate collection and habitat loss.

Satyrium Sw.

A terrestrial, erect, leafy herb, 20-50cm high; inflorescence terminal; flowers pink or white, showy; sepals oblong entire; petals spathulate to lanceolate; lip erect, spurred; column erect, incurved; stigma hood 3-lobed; pollinia 2; rostellum 3-lobed; viscidia 2, attached to pollinia.

Etymology: The generic name *Satyrium* is derived from the Greek terminology *Satyrion*(satyr), referring to the traditional aphrodisiac properties of tubers of plant since early herbals of Dioscorides.

Key to varieties:

Leaves ovate-lanceolate; flowers mostly pink; spurs longer than ovary ----- var. *nepalense*

Leaves oblong-lanceolate; flowers usually white, rarely pink;
spurs smaller than ovary ----- var. *ciliatum*



Satyrium nepalense var. *nepalense* at 3185 m (E.Sikkim): **Common**

Satyrium nepalense D.Don, Prodr. Fl. Nepal. 26.1825. var. **nepalense**

Terrestrial herbs, 10-60cm high; leaves ovate-lanceolate, 4-20×2-8 cm, clasping the stem; flowers fragrant, pink; lips orbicular, hooded, keeled; spurs 2, longer than ovary.

Distribution: E. Sikkim: Tsomgo lake catchment area, 3185m; 11-09-2007
Specimen studied: SAHOO, A.K. 29692 (BSHC-6 nos).



Satyrium nepalense var. *ciliatum* at 3132m (E.Sikkim): **Threatened**

Satyrium nepalense var. ***ciliatum*** (Lindl.) Hook. f., Fl. Brit. India 6(1):168.1890. *Satyrium ciliatum* Lindl., Gen. Sp. Orchid. Pl.:341.1838.

Terrestrial herbs up to 30cm high; leaves oblong-lanceolate, 10-15×2-3cm, clasping the stem; flowers generally white, rarely pinkish-white, floral bracts reflexed, acute to acuminate up to 2 cm long, petals ciliate; lip with spur shorter than ovary.

Distribution: E. Sikkim: Tsomgo lake catchment area, 3132m; 17-09-2007
Specimen studied: SAHOO, A.K. 31583 (BSHC-2 nos.).

References: Banerji, M.L. & P. Pradhan. 1984. The Orchids of Nepal Himalaya. p.130-133; Deva, S & H.B. Naithani. 1986. The Orchid Flora of North West Himalaya. p.201-203; Lucksom, S.Z. 2007. The Orchids of Sikkim and North East Himalaya. p.224-225; Pearce, N.R. & P.J. Cribb. 2002. Flora of Bhutan (The Orchids of Bhutan) 3(3):192-195.

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