

FIRST REPORT OF OCCURRENCE OF *OREORCHIS INDICA* (LINDL.) HOOK. F. (ORCHIDACEAE) IN DARJEELING HIMALAYA OF WEST BENGAL, INDIA

Rajendra Yonzzone, Samuel Rai¹, and Khyanjeet Gogoi²

Taxonomy and Ethnobiology Research Laboratory, Cluny Women's College, P.O. Kalimpong- 734 301,
District Darjeeling, West Bengal, India

¹Directorate of Cinchona and Other Medicinal Plants, Mungpoo- 734 313, District Darjeeling, West Bengal, India

²TOSEHIM, Orchid Germplasm Conservation and Propagation Centre, (Assam Circle) Daisa Bordoloi Nagar,
Talap, Tinsuki- 786 156, Assam, India

Abstract

Oreorchis indica (Lindl.) Hook. f. (Orchidaceae) collected from Sandakphu forest of Darjeeling district of West Bengal is reported as new record for the Darjeeling Himalaya of West Bengal, India.

Introduction

WHILE WORKING on orchid flora of Darjeeling Himalaya, the authors came across some interesting specimens of terrestrial orchid species. After critical examination and comparison with other authenticated specimens and literatures, it was identified as *Oreorchis indica* (Lindl.) Hook. f. A perusal of literature revealed that the occurrence of this species has not been reported earlier from Darjeeling Himalayan region (Bose and Bhattacharjee, 1999; Bruhl, 1926; Hara, 1966, 1971; Jain and Rao, 1977; King and Pantling, 1898; Ohashi, 1975; Pradhan, 1979; Yonzzone, 2015; Yonzzone *et al.*, 2012a,b,c). So, the present finding is a new addition to the orchid Flora of Darjeeling Himalaya of West Bengal, India. The taxon is threatened and facing higher risk of threats because of biotic pressure in the regions and is found in partial shady forest floor of *Abies densa*. A detailed taxonomic account of the species based on the fresh specimens along with habitat, altitudinal range, current status, specimen cited and geographical distribution is provided in the present paper. To facilitate easy identification of taxon, concise descriptions with protologue reference and photograph of inflorescence with floral display are given below.

Species Description

Oreorchis indica (Lindl.) Hook. f., Fl. Brit. India 5(2): 709. 1890.

Oreorchis foliosa (Lindl.) Lindl. var. *indica* (Lindl.) N. Pearce & P.J. Cribb. J. Orchid Soc. India 10(1-2): 5. 1996; Edinb. J. Bot. 54(3): 307. 1997.

Corallorhiza indica Lindl. J. Proc. Linn. Soc., Bot. 3: 26. 1859. (Fig. 1, A, B).

Plant terrestrial, 16-35 cm tall. *Pseudobulb* corm like, 1.5-2 × 1.5-2.3 cm, sheathed. *Leaf* solitary, 7-26 × 1.5-3.5 cm, narrowly lanceolate, acuminate, petiolate. *Inflorescence* 6-10-flowered. *Flowers* 1-1.4 cm across, reddish-purple, lip white with purple spots. *Dorsal sepal* 0.7-1 × 0.2-0.3 cm, linear-lanceolate, acute, distinct nerved; lateral pair 0.8-1.2 × 0.3-0.35 cm, subfalcately lanceolate, acute, distinct nerved. *Petals* 0.7-0.1 × 0.3-0.4 cm, elliptic, obtuse, subfalcate, distinct nerved. *Lip* 0.7-0.9 cm long, deflexed, 3-lobed to unlobed, distinct nerved; side lobes variable, broad; apical lobe suborbicular, margin undulate.

Flowering

May-August.

Habitat

Terrestrial on shady places.

Altitudinal Range

2500-4500m.

Current Status

Threatened in natural habitat.

Geographical Distribution

India (Himalayas), China and Nepal.

Locality and Specimen Examined

India, West Bengal, Darjeeling Himalaya, Sandakphu forest, 25-5-2016, Rajendra Yonzzone *et al.* 1396

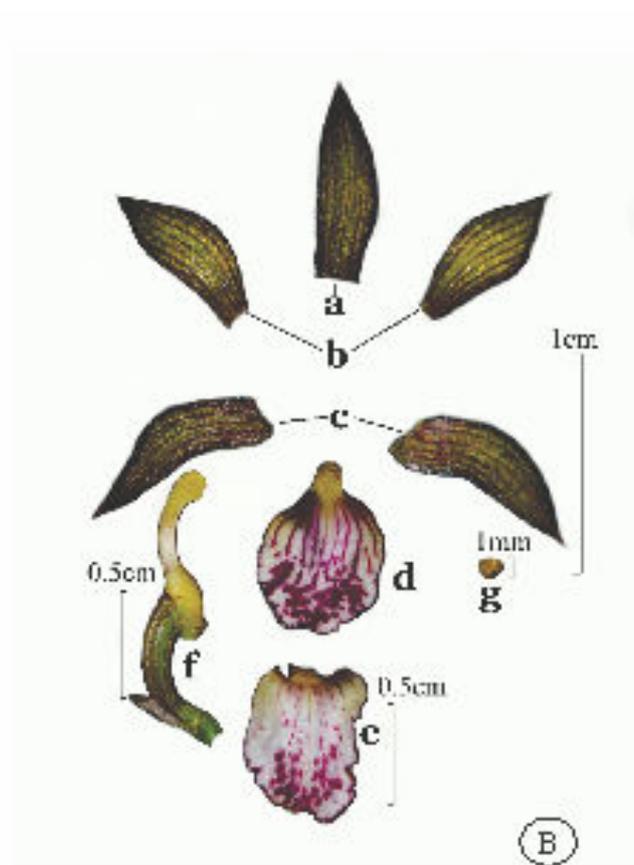


Fig. 1. *Oreorchis indica* (Lindl.) Hook. f.: A, A portion of young inflorescence; B, Floral perigone. a, Dorsal sepal; b, Petals; c, Lateral pair; d, Front view of lip; e, Back view of lip; f, Column with pedicellate ovary and floral bract; g, Anther.

(Herbarium of Taxonomy and Ethnobiology Research Laboratory, Cluny Women's College, Kalimpong).

References

- Bose, T. K. and S. K. Bhattacharjee. 1999. *Orchids of India*. Revised Edition. Naya Prokash, Calcutta, India.
- Bruhl, P. 1926. *A Guide to the Orchids of Sikkim*. Bishen Singh Mahendra Pal Singh, Dehradun, India.
- Hara, H. 1966. *The Flora of Eastern Himalaya*, University of Tokyo Press, Japan.
- Hara, H. 1971. *The Flora of Eastern Himalaya, Second Report*, University of Tokyo Press, Japan.
- Hooker, J. D. 1888-1890. *The Flora of British India*. Vol. 5 & 6. L. Reeve & Co. London, UK
- Jain, S. K. and R. R. Rao. 1977. *Field and Herbarium Methods*. Today and Tomorrow's Printers and Publishers. New Delhi, India.
- King, G. and R. Pantling. 1898. The Orchids of the Sikkim-Himalaya. In *Annals of the Royal Botanic Garden*, Calcutta 8, India.
- Ohashi, H. 1975. *The Flora of Eastern Himalaya, Third Report*. University of Tokyo Press, Japan.
- Pearce, N. R and P. J. Cribb. 2002. *Flora of Bhutan. The Orchids of Bhutan*. Vol. 3, part 3. Royal Botanic Garden, Edinburgh, Scotland.
- Pradhan, U. C. 1979. *Indian Orchids Guide to Identification and Culture*, (Vol. II). Premulaceae Books, Kalimpong, India.
- Yonzone, Rajendra. 2015. *Studies on the Orchid Flora of Darjeeling Himalaya*. Ph.D. Thesis. University of North Bengal, Raja Rammohunpur, Siliguri, West Bengal, India.
- Yonzone, Rajendra, R. B. Bhujel, D. Lama, and Samuel Rai. 2012a. Orchid species diversity of Darjeeling Himalaya of India. *Int. J. Pharm. Lif. Sci.*, **3**(3): 1533–50.
- Yonzone, Rajendra, D. Lama, R. B. Bhujel, K. Gogoi, and Samuel Rai. 2012b. Terrestrial and semi saprophytic orchid species diversity of Darjeeling Himalaya of West Bengal, India. *McAllen Int. Orch. Soc. J. (USA)*, **13**(4): 2–20.
- Yonzone, Rajendra, D. Lama, R. B. Bhujel, K. Gogoi, and Samuel Rai. 2012c. Taxonomic assessment on the reported orchid species of Darjeeling district from flora of Bhutan, the Orchids of Bhutan – A review. *Int. J. Pharm. Lif. Sci.*, **3**(4): 1590–1606.