

## GOODYERA BIFLORA (LINDL.) HOOK. F. (ORCHIDACEAE): A NEW RECORD FOR DARJEELING HIMALAYA OF WEST BENGAL, INDIA

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### Abstract

Present paper deals with *Goodyera biflora* (Lindl.) Hook. f. (Orchidaceae) which was presently collected from Gairibas, Neora Valley, and Damsang forest of Darjeeling Himalaya of West Bengal and is reported as a new angiospermic record for the Darjeeling Himalayan region of India. An updated nomenclature, important synonyms, illustrated description, habitat, flowering and fruiting, altitudinal range, specimen examined, present status, and geographical distribution of species has also been given.

### Introduction

The genus *Goodyera* was established in 1813 by Robert Brown; it comprises about 40 species widely distributed in the Northern Temperate Zone, South to Mexico and East to Madagascar, SouthEast Asia, the Pacific Islands, New Guinea, and Australia. Blume (1858), Schlechter (1911-14), and Seidenfaden (1978) revised the sectional treatment of the genus (Pearce and Cribb, 2002).

*Plants* small terrestrial herb; *rhizome* creeping. *Stems* erect, leafy. *Leaves* basal or clustered, sometimes reticulately patterned. *Inflorescence* terminal, few to many-flowered, racemose; *peduncle* and *rachis* often pubescent. *Flowers* small, often pubescent or glandular on outer surface. *Sepals* parallel to the floral axis or with lateral pair spreading; *dorsal sepal* forming a hood with *petals*. *Lip* unlobed, hollow or saccate at base, often setose within, narrowed to an acute apex. *Column* short; *rostellum* long, deeply cleft; *pollinia* 2, pyriform or clavate.

While working on Orchid flora of Darjeeling Himalaya, the authors came across interesting specimens of terrestrial orchid species. After critical examination and comparison with other authenticated specimens and literature, an unknown species of terrestrial Orchid was identified as *Goodyera biflora* (Lindl.) Hook. f. (Orchidaceae) which was collected from Gairibas, Neora Valley, and Damsang forest of Darjeeling Himalaya. A perusal of earlier literature (Bose and Bhattacharjee, 1999; Bruhl, 1926; Hara, 1966, 1971; Hooker, 1888-1890; King and Pantling, 1898; Ohashi, 1975; Pearce and Cribb, 2002; Pradhan, 1979; Pradhan and Pradhan, 1997) related to the Orchid

Flora of Darjeeling revealed that the occurrence of this species has not been reported earlier from Darjeeling Himalayan region and hence the present collection is its first record of occurrence as *Goodyera biflora* (Lindl.) Hook. f. for Darjeeling Himalaya of West Bengal, India. The newly collected specimens were processed and mounted on standard herbarium sheets as per Jain and Rao (1977) and have been deposited in the Herbarium, Cluny Women's College, Kalimpong for future references. A detailed taxonomic account of the species along with a photograph, habitat, altitudinal range, present availability status, local distribution within Darjeeling, and geographical distribution is provided here to authenticate the new record and facilitate its easy identification.

### Species Description

*Goodyera biflora* (Lindl.) Hook. f., Fl. Brit. India 6: 114. 1890. *Georchis biflora* Lindl., Gen. Sp. Orchid. 496. 1840. *Epipactis biflora* (Lindl.) Eaton, Proc. Biol. Soc. Wash. 21: 63. 1908. (Figs. 1-2).

*Plant* terrestrial herb, 6-11 cm tall. *Stem* decumbent, erect, stout. *Leaves* 2, 2.4-3 × 1.6-2.5 cm, ovate-cordate, obtuse, dark bluish-green and reticulated with white nerved on upper surface, petiolate. *Inflorescence* 2-7 flowered, terminal racemes with hairy rachis. *Flower* 2.3-2.5 cm across, white, hairy; *floral bracts* longer than ovary. *Sepals* 2.3-2.5 × 0.4-0.6 cm, narrowly lanceolate; *dorsal sepal* recurved at the apex, forming a hood over the *column* with *petals*; lateral pair shorter, strongly reflexed, connate at base. *Petals* 2.3-2.5 × 0.4-0.5 cm, linear-lanceolate, falcate. *Lip* shorter than sepals and petals, white with yellow tinge, saccate at base. *Anther* ovate; *pollinia* 2.



Fig. 1. *Goodyera biflora* (Lindl.) Hook. f. (young inflorescence).

July–September.

*Habitat*

Terrestrial on shady places.

*Distribution*

India (Darjeeling, North West India), Nepal

*Locality and Specimen Examined*

Gairibas forest 2800 m, of Darjeeling Sub-Division of Darjeeling Himalaya (Border area of Nepal and India), dated 31. 07. 2010, Rajendra *et al.* 1377 (West Bengal, India).

*Altitudinal Range*

1900 –2850 m.

*Present Availability Status*

Rare in natural habitat.

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Fig. 2. *Goodyera biflora* (Lindl.) Hook. f. (Herbarium specimen).

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