

Ponerorchis puberula- A little known rare Orchid from Sikkim-Himalaya

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Abstract

Ponerorchis puberula (King & Pantl.) Verm., a little known rare orchid species has been recently collected from Sikkim, India. A detailed taxonomic description along with photographic illustration and distribution maps is provided to facilitate its easy identification.

Keywords

Ponerorchis puberula, Rare orchid, Sikkim.

Introductions

The orchid genus *Ponerorchis* is represented by c. 20 species mainly distributed in Himalaya, China and Japan being inhabitants of grasslands and open shrubland. The members of the genus are often confused with *Amitostigma* Schlechter due to similarity in habit and other floral characters. However, the species under the genus are quite distinct from the latter by having viscidia enclosed in bursicle and one concave stigma lobe, while *Amitostigma* has naked viscidia and two slightly raised lateral lobes along with a central lobe in their stigma.

The species was first collected by D.C.S. Raju & S. Singh collected this species from Yakchey during field survey in 1986, and later by G.P. Sinha & D.G. Long collected from Phuni in 1996.

During a field exploration tour to Shingba Rhododendron Wildlife Sanctuary, North district, Sikkim during July 2013, it was collected in flowering condition. Critical study of literature revealed its identity as *Ponerorchis puberula* (King & Pantl.) Verm.. The taxonomic description and other details are as below:

Taxonomic treatment

Ponerorchis puberula (King & Pantl.) Verm. in Jahresber, Naturwiss. Ver. Wuppertal. 25: 30. 1972.

Orchis puberula King & Pantl. in Ann. Roy. Bot. Gard. (Calcutta) 8: 304, t.403. 1898.

A small sized herbs up to 10 cm tall, with a globose to subellipsoid tuber; Stem slender, bearing bladeless sheaths at base; ebracteate above leaf, 6-12 cm long; basal sheaths 1 or 2, tubular, overlapping, 0.6-1.5 cm long; Leaf solitary, linear, acute, sessile, not sheathing, 3-5.5 × 0.1-0.3 cm; Spike terminal, peduncled, 2-3 flowered with lanceolate, acute minutely glanular margined floral bracts, 4-6 × 1.2-1.8 mm; Flower 5-10 mm long, white with pale pink dotted; Dorsal sepal ovate, subacute concave, puberulous externally, keeled, 1-veined, 2-3 × 1-1.5 mm; lateral sepals ovate, oblique, subacute, spreading, 1-veined, 3-3.5 × 0.8-1.2 mm; Petal lanceolate, subacuminate, falcate, 1-veined, 2-2.2 × 0.7-1.2 mm; Lip 4-lobed (the lateral lobes broadly oblong with truncate apices; the terminal lobe divided into two truncate lobules almost as large as the side lobes), decurved, spurred, surface densely pubescent, 5-7 × 3-6 mm; Spur cylindrical, subacute, 2.2-3.5 mm long; column 1-1.5 mm; Anthers with parallel cells; pollinia sub-obovoid; Caudicles clavate; Viscidia small; Staminodes elongate (Figure 1).

Distribution: India (Sikkim: North district, Phuni, Yakchey, Yumthang, Shingba Rhododendron Wildlife Sanctuary); Bhutan (Figure 2).

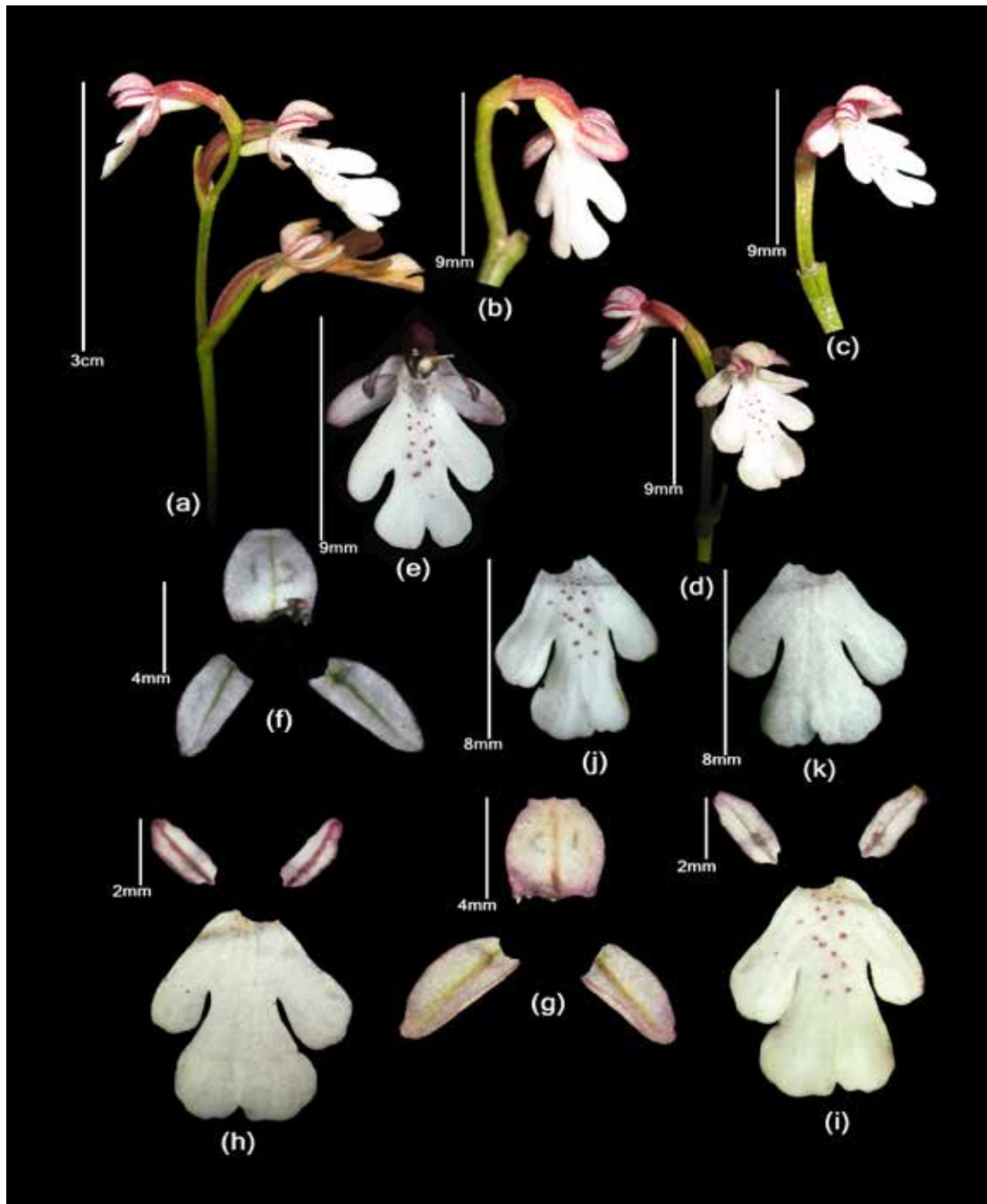


Fig. 1. *Ponerorchis puberula* A-D. Different view of flowers with bract; E. Close up of flower; F-G Sepal (ventral and dorsal view); H-I: Petals (ventral and dorsal view); J-K: Lip (ventral and dorsal view).

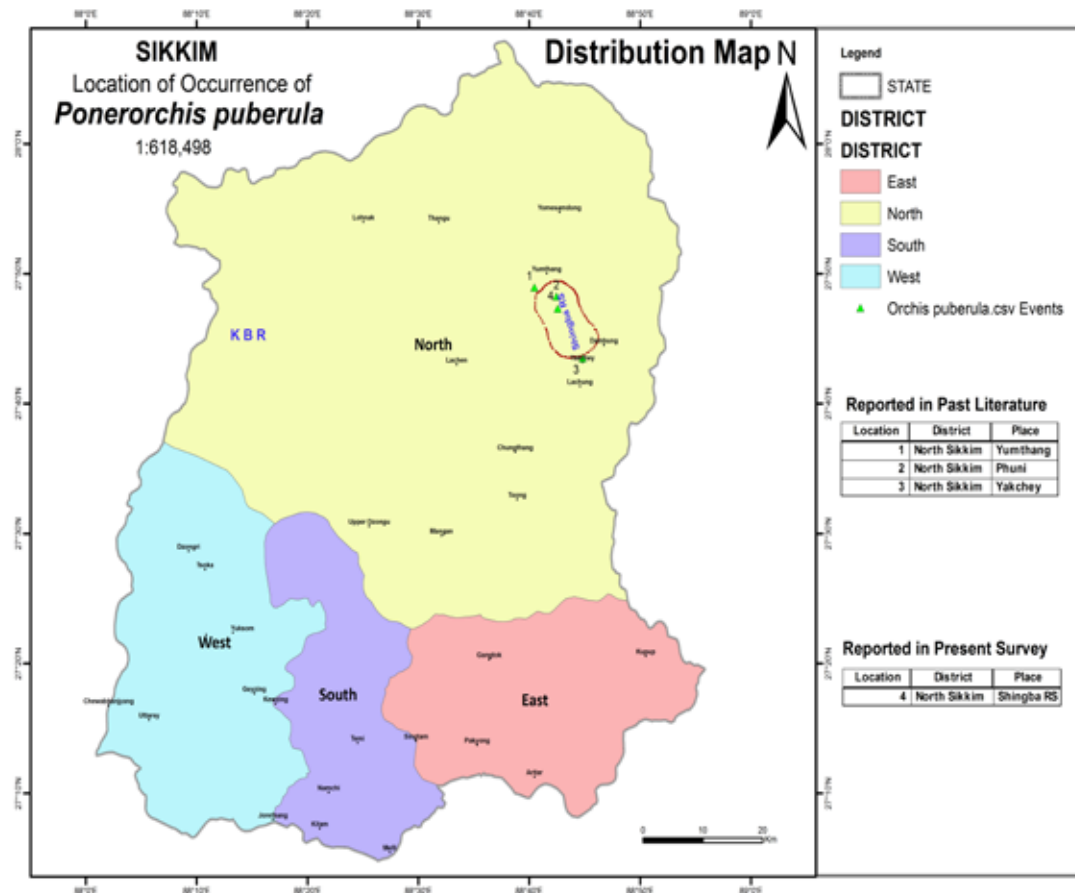


Fig 2. Map showing distribution of *Ponerorchis puberula* in Sikkim (source: QGIS and Google Earth).

Specimen examined: Sikkim: North district, Shingba Rhododendron Wildlife Sanctuary, 27°45'27.7" N & 88°43'27.2" E, 12000 ft, 23.07.2013, *C.S. Purohit* 37492 (BSHC); North district, Between Phuni-Yakchey, 3190m, 14.07.1996, *G.P. Sinha & D.G. Long* 17855, BSHC-19962, 19963, 19964; North district, Yakchey to Yumthang, 10.07.1986, *D.C.S. Raju & S. Singh* 5710, BSHC-16445, 16446.

Acknowledgements

Authors are grateful to Director, Botanical Survey of India, Kolkata for facilities and encouragements. The first author is thankful to H.O.O., BSI Sikkim Himalayan Regional Centre, Gangtok for facilities and encouragements

and to officials of Forest Department of Sikkim for rendering the logistic support during field exploration. Thanks extend to Mr. Rajkumar, Herbarium attendant, BSI-SHRC, Gangtok for help in plants collection during the field survey.

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Received 11 June 2016 : Revised accepted 06 July 2016