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Original Article

A New Locality of *Habenaria Roxburghii* R.Br. -An Endemic Orchid in Southern Eastern Ghats, Tamil Nadu

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Abstract

A new locality of *Habenaria roxburghii* R. Br. (Orchidaceae), has been found in the Sathyamangalam Wildlife Sanctuary in the Southern Eastern Ghats, Tamil Nadu. We observed very small number of individuals in the population and this species was considered as an endemic to South India.

Keywords: *Habenaria roxburghii*, Orchidaceae, Eastern Ghats, Wildlife Sanctuary

Introduction

Orchids are biologically very specialized group of plants with most beautiful flowers and comprise of a unique group of plants. Orchidaceae are one of the largest families of monocots and the second largest among the flowering plants. About 30 species of this genus occur in South India (Hooker, 1980). The genus *Habenaria* is a huge and the largest genus of terrestrial orchids with 600 species (Dressler, 1993) and belongs to the Habenaria-group of the Orchidaceae. The genus was first circumscribed in 1806 by Willdenow.

The species was found in Hasanur Range (940 msl) of Sathymangalam Forest Division (10º 29' 15" to 11º 43' 11" N and 76º 50' 46" to 77º 27' 22" E), Southern Eastern Ghats. The study area is rich with fauna and flora. The major vegetation of the study area includes dry deciduous and riverine habitats. On an intensive study, we identified the distribution of *Habenaria roxburghii* R. Br. in the location for the first time. A perusal of available literature related to the Flora of Tamil Nadu Carnatic has revealed that this species has not been reported in Southern Eastern Ghats of Tamil Nadu. Previously it was considered to be endemic to peninsular India (Sathish Kumar & Manilal 2004; 1994 and Abraham & Vatsala 1981), because the species was highly utilized by human for medicinal purpose (Johnson *et al*., 2008). The identification and confirmation of the species was done at Botanical Survey of India (BSI), Southern Regional Centre, Coimbatore. Conservation measures should be taken immediately to protect all habitats of this indigenous species. A detailed description with illustrations has been provided for easy identification and further collection of this species.

Habenaria roxburghii R. Br. Prodr. 1:312, 1810; Nicolson in Saldanha & Nicolson, Fl. Hassan, 834, 1976: Matthew, Fl. Tamilnadu Carnatic 3: 1563, 1983, Sathish & Manilal, Cat. Indian Orc. 77, 1994; Sathish & Manilal in Manilal & Sathish, Orc. Mem. Tribut. Gunn. Seidenf. 197, 2004.

Synonyms: *Habenaria platyphylla* (Willd.) Spreng., Syst. Veg. (ed.16) 690, 1826; Wight, Icon. Pl. Ind. Orientt. 1709, 1851; Hook.f. Fl. Brit. India 6: 140, 1890; C.Fischer, Fl. Madras 3: 1470 (1027). 1928; Santhapau & Kapadia, Orch. Bombay 19, 1966; Matthew, Mat. Fl. Tamilnadu Carnatic 1563 -1564, 1983; Abraham & Vatsala, Introd. Orch. 229, 1981.

Terrestrial, erect, tuberous herbs with leaves lying on the ground. Tubers 3 - 4 x 1.2 – 1.8 cm, fleshy, white coloured, young tuber sometimes attached to the mature one. Roots few, short, vermiform. Stem 25 – 35 cm. Leaves 3 – 6 in a rosette, 1.4 -6.7 x 1.2 - 6.2 cm, orbicular or elliptic, rounded or acute, thick, adpressed to the ground, fleshy, waxy, dark green to glaucous; sometimes only mid-vein is visible in live state, in dried material 7 – 11 parallel veins visible with many cross veins. Terminal raceme 25 – 35 cm, arising from centre of rosette leaves; 3 -5 sterile bracts 1.2 -3.3 cm long; flower bearing portion 6 -8 cm; flowers 10 - 20, pure white with end of spur light green, 1.8 - 2.2 cm across when spread out; floral bract 14.4- 15.4 x 2.3-3 mm,

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narrowly lanceolate, finely denticulate, 3 veined lateral veins incompletely branching out. Dorsal sepal 7.5 x 5.6 mm, oblong, blunt, 3 veined, finely denticulate; lateral sepals 9.3-9.8 x 5.9 - 6.3 mm, obliquely and broadly ovate, deflexed, 3 veined; lateral veins branching from base, finely denticulate. Petals 6.2-6.4 x 2.2-2.3 mm, acute, oblanceolate, 1 veined, finely denticulate, forming a hood with the dorsal sepal. Lip 3.5 x 8 mm, 3 lobed; mid lobe three times as long as lateral lobes and decurved backward in live state; 2 lateral veins either side of central vein, the inner branching at the base and joining with the central vein distally, finely denticulate; spur 2cm long; cylindrical, laterally compressed. Mouth spiny with a large tooth in the middle of the lower side. Column short; rostellum minute, stigmatic processed elongate, incurved towards mouth of spur, base continuous with the lip. Anther laterals adnate to the column, 2 loculed pollinia in 2 waxy masses, rhomboid; caudicles long; gland small. Ovary 1-1.5 cm, pedicel twisted at base. Capsule 1-1.5 cm long, spindle shaped.

Uses: Tubers with garlic and pepper used to cure snake bite.

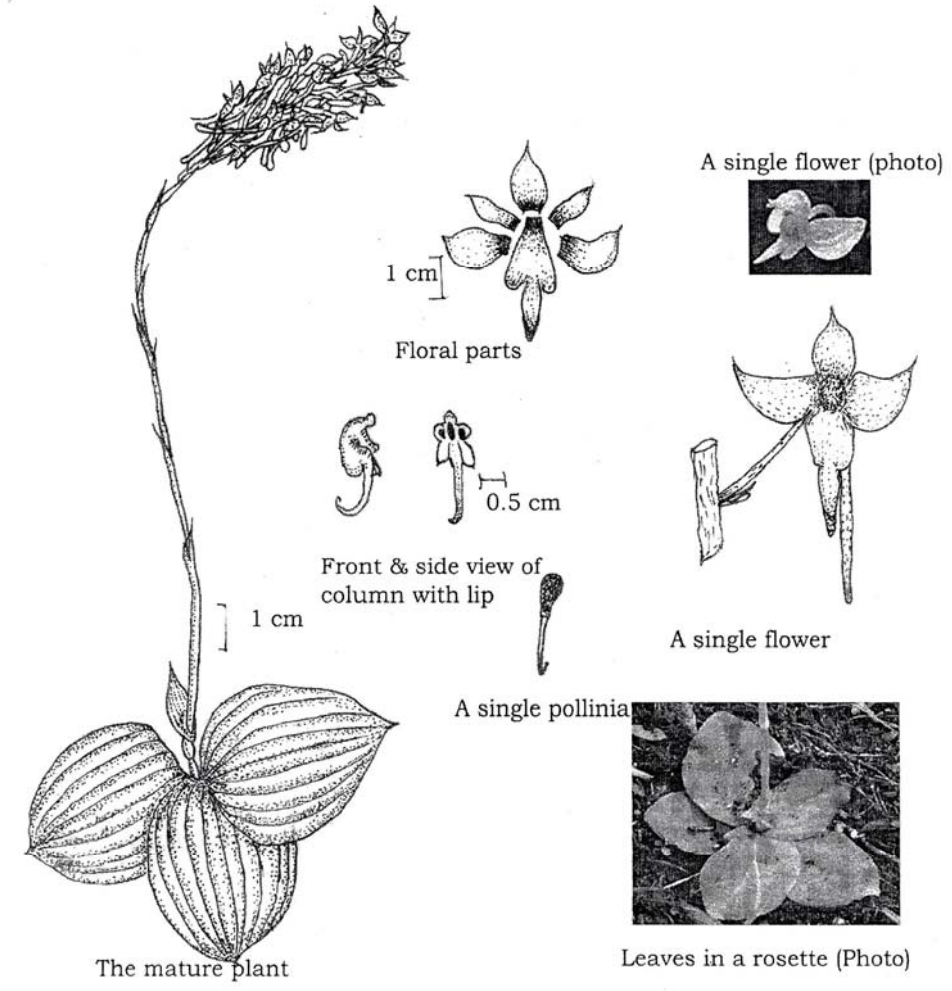

Figure 1: *Habenaria roxburghii* R.Br.

Flowering and Fruiting: September - November.

Status and Distribution: Endemic to South India. It is distributed in the shade of the tree intermittent sunlight and cool and sub-humid conditions.

Specimen Examined: India, Tamil Nadu, Madras city, Guindy Deer Park Reserve Forest, 6th October 1974, A. N. Henry, Accession No: 155938, 143842 (MH).

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