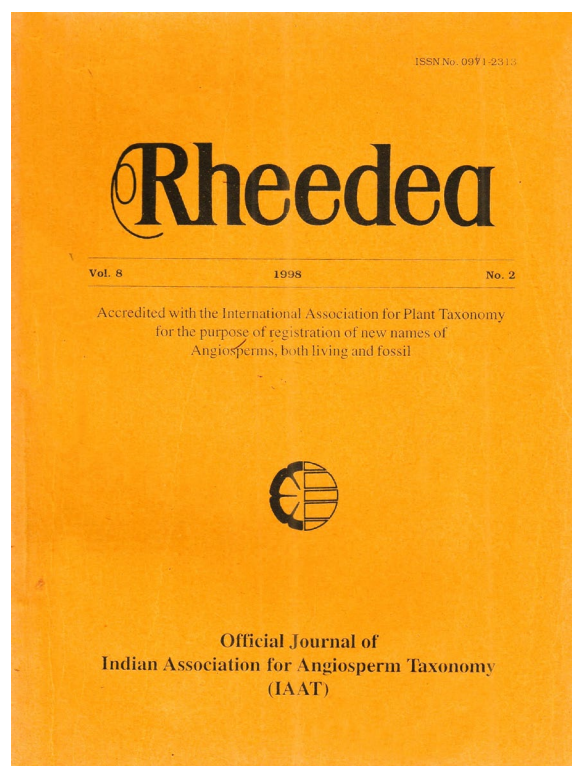




## *Habenaria periyarensis*, a new Orchid from India

Sasidharan N., Rajesh K.P. & Jomy Augustine



How to cite:

Sasidharan N., Rajesh K.P. & J. Augustine 1998. *Habenaria periyarensis*, a new Orchid from India. *Rheedia* 8(2): 167–171.

<https://dx.doi.org/10.22244/rheedia.1998.08.02.06>

Published in print: 31.12.1998

Published Online: 01.01.2022

## ***Habenaria periyarensis*, a new orchid from India**

**N. Sasidharan, K.P. Rajesh\* and Jomy Augustine\*\***

Kerala Forest Research Institute, Peechi - 680 653, Thrissur, Kerala, India

---

### **Abstract**

*Habenaria periyarensis* Sasidharan, Rajesh *et* Jomy (Orchidaceae) is described from the Western Ghats of India.

### **INTRODUCTION**

The genus *Habenaria* is reported to have 72 species in India of which 38 are endemic (Sathish Kumar & Manilal, 1994). The Western Ghats, one of the two biodiversity 'hot spots', in India, harbours about 43 species of which 30 are endemic. During our studies on the flora of the Periyar Tiger Reserve, in the Southern Western Ghats, Kerala, South India, 14 species of *Habenaria* were collected. One of these was found not to agree with any known species, and is here described as new.

***Habenaria periyarensis* Sasidharan, Rajesh *et* Jomy *sp. nov.* (Fig. 1)**

*Habenariae diphyllae* Dalz. affinis, sed foliis elliptico-oblongis acutis mucronatis, floribus paucioribus, petalis lineari-falcatis acutis 2-nervatis differt. *Habenariae viridiflorae* (Rottl. *ex* Sw.) R. Br. similis sed foliis elliptico-oblongis basi cuneata, floribus maioribus sepalis lateralibus labello calcareque albis, bracteis 3-nervatis, petalis lineari-lanceolatis, calcare curvato differt.

*Type:* India, Kerala, Idukki District, Periyar Tiger Reserve,  $\pm$ 1200 m alt., 5 August 1996, Jomy Augustine 17842 (Holo- KFRI; Iso - K, MH); *Ibid*,  $\pm$ 1100 m alt., 19 August 1993, Jomy Augustine 12294 (Para - KFRI).

Terrestrial herbs, to 25 cm tall. Tubers 2-3 x 1.5 cm, oblong. *Leaves* 2 or 3, radical, sessile, 4-5 x 1-2 cm, narrowly elliptic-lanceolate to elliptic-oblong, acute, mucronate, cuneate

---

Present address:

Department of Botany, University of Calicut, Calicut University P.O., 673 635, Kerala, India.

Department of Botany, St. Thomas College, Pala, Kerala, India.

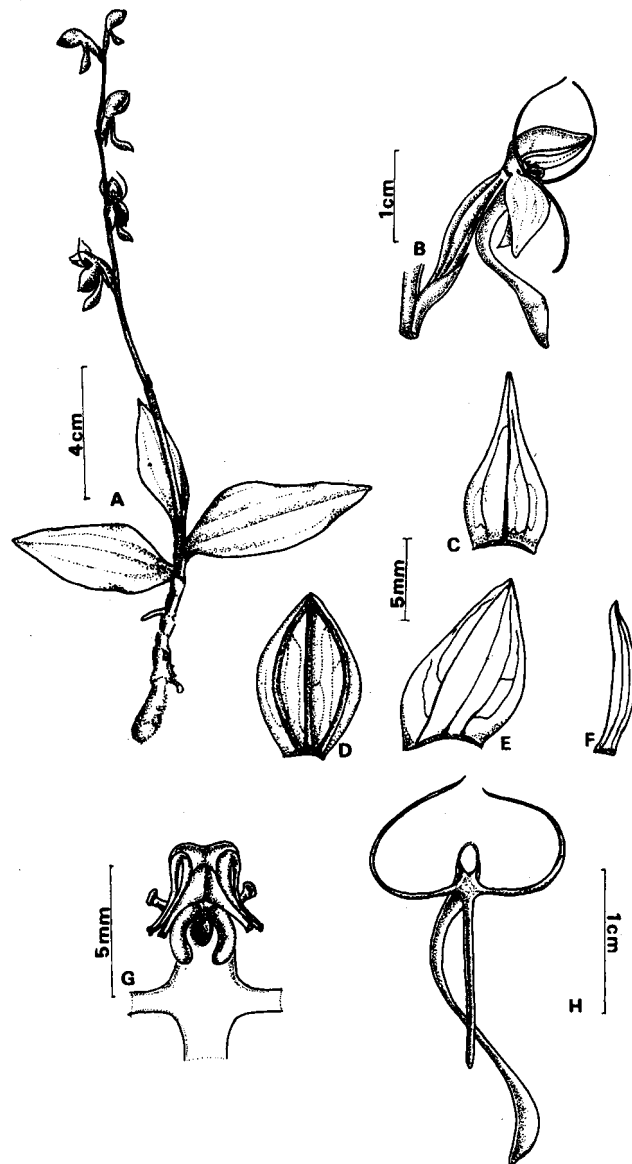
N. Sasidharan *et al.*

Fig. 1. *Habenaria periyarensis* Sasi. *et al.*: A. Habit; B. Flower; C. Bract; D. Dorsal sepal; E. Lateral sepal; F. Petal; G. Column; H. Lip.

***Habenaria periyarensis* a new orchid from India**

at base, texture thin, glabrous. Inflorescence a raceme, peduncle 15-18 cm long; 3-5 flowered, with *c.* 5 sterile bracts, 10-15 x 2-3 mm, ovate to linear acuminate. Floral bracts 7 x 2 mm, ovate, acuminate, 3-veined. Dorsal sepal green, 7-10 x 6 mm, elliptic, acute, dorsally 3-ribbed, 3-5 veined. Lateral sepals white, reflexed, 6-12 x 6 mm, ovate, acute, oblique at base, 5-veined. Petals green, 7-9 x 1.5-2 mm, subfalcately linear-lanceolate, subacute, 2-veined, connivent with dorsal sepal forming a hood above the column. Lip greenish-white, 3-partite; lateral lobes 10-17 x 0.9 mm, filiform, acute and curving up; midlobe 10-12 x 1 mm, linear; obtuse; spur white, 20-25 x 1-2 mm, cylindrical, slightly inflated towards the apex, curved, longer than ovary. Column 5 x 4 mm. Anthers lateral; anther sac 2 x 1.5 mm, anther canal 2 mm long, straight. Pollinia pyriform 1.7 x 1 mm; caudicle 2 mm long; viscidium small. Staminodes 2, 1.5 x 0.5 mm, oblong, warty at apex. Rostellar arms 1.5-2 mm long, nearly as long as the anther. Stigma dark green, 3.5 x 0.5 mm, reniform. Ovary 1.5 cm long, shortly pedicellate.

*Flowering:* July-August. Fruits not seen.

*Habitat:* Rare, in grasslands among short grasses.

*Etymology:* The new species is named after the type locality, Periyar Tiger Reserve.

*Habenaria periyarensis* belongs to section *Trimeroglossa* Hook. f., distinguished by spreading lateral sepals, entire petals and 3-partite lip with filiform lobes. It can be placed in the *H. diphylla* group, which according to Seidenfaden (1977) is much in need of revision. It also shows some resemblance to *H. viridiflora* (Rottl. ex Sw.) R. Br. in general appearance, but differs strongly in floral features (Table 1).

**Table 1. Comparison of *H. periyarensis* with *H. viridiflora* and *H. diphylla***

Characters	<i>H. viridiflora</i>	<i>H. periyarensis</i>	<i>H. diphylla</i>
Leaves	4-6, radical, 5 x 1 cm, linear, acute, not narrowed to base	2 or 3, radical, 4-5 x 2 cm, elliptic-oblong, acute, mucronate, cuneate at base	2, radical 5-7 x 4-6 cm, ovate cordate, acute.
Flower colour	green	dorsal sepal and petals green, lateral sepals white, lip greenish-white, spur white	dorsal sepal green, lateral sepal white, petals greenish-white, lip white, spur greenish-white

## N. Sasidharan et al.

Characters	<i>H. viridiflora</i>	<i>H. periyarensis</i>	<i>H. diphylla</i>
Floral bracts	6.8 x 2.9 mm, ovate, acuminate, 1-veined	7 x 2 mm, ovate, acuminate, 3-veined	9 x 5 mm, ovate, acuminate, 1-veined, with 1 or 2 lateral veins
Dorsal sepal	2.2 x 1.8 mm, orbicular-ovate, truncate, 3-veined	7 x 3.5 mm, elliptic acute, 3-5 veined and prominently 3-ribbed dorsally	5 x 4 mm, ovate, acute, 3-veined
Lateral sepals	3.3 x 2.4 mm, obliquely ovate, obtuse, 3-veined	6 x 4 mm, ovate, acute, oblique at base, 5-veined	6 x 3 mm, ovate, acute, oblique at base, 3-veined
Petals	2.7 x 1.4 mm, obliquely triangular-ovate, truncate with one vein giving off two lateral veins	7-9 x 1.5-2 mm, linear-lanceolate, subacute, 2-veined	6 x 0.9 mm, linear, obtuse, 1-veined
Lip	3-partite, lateral lobes, linear; midlobe 3.6 x 1 mm, linear, shorter than laterals and straight	3-partite; lateral lobes 10-17 x 0.9 mm, filiform, upcurved; midlobe 10-12 x 1 mm, linear	3-partite; lateral lobes 11-12 x 0.5 mm, filiform, upcurved; midlobe 6 x 0.8 mm, linear
Spur	15.6 x 1-1.2 mm, parallel to ovary, slightly inflated at apex	20-25 x 1-2 mm, cylindrical, inflated, curved towards apex	14 x 1-1.5 mm, inflated at apex

## Acknowledgements

We are thankful to Dr. J.J. Wood and Dr. J.M. Lock, Royal Botanic Gardens, Kew for confirming the novelty of our specimen, and for comments on the manuscript respectively, and to Dr. C. Sathish Kumar, Tropical Botanic Garden and Research Institute, Thiruvananthapuram, for helpful suggestions. Sincere thanks are also due to Dr. J.F. Veldkamp, Rijksherbarium, Leiden for providing Latin diagnosis. The study has been carried out with the financial assistance from the Wildlife Wing of Kerala Forest Department. One of us (KPR) is thankful to CSIR, New Delhi, for the award of Senior Research Fellowship.

***Habenaria periyarensis* a new orchid from India**

**Literature cited**

- Hooker, J.D. 1891. *The Flora of British India*. L. Reeve & Co., London. Vol. 6: 131-166.
- Sathish Kumar, C. & K. S. Manilal. 1994. *A Catalogue of Indian Orchids*. Bishen Singh Mahendra Pal Singh, Dehra Dun.
- Seidenfaden, G. 1977. Orchid genera in Thailand 5. Orchidoidea. *Dansk Bot. Ark.* 31: 1-149.