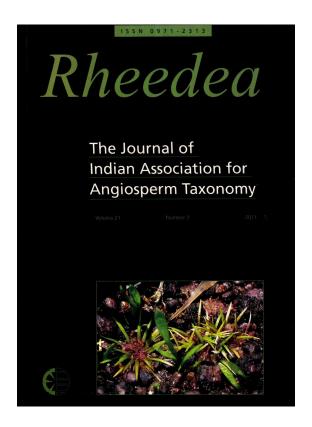




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Rajesh Kumar T., Sabu M. & V.P. Thomas



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Stachyphrynium repens (Marantaceae): A new record for India from Andaman and Nicobar Islands

T. Rajesh Kumar, M. Sabu* and V.P. Thomas

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

*E-mail: msabu9@gmail.com

Abstract

Stachyphrynium repens (Körn.) Suksathan & Borchs. is a new record for India from Andaman Islands. A revised and detailed description, ecology, phenology, distribution and illustration are provided. The species so far reported from Southeast and Peninsular Thailand, Peninsular Malaysia and Indonesia (Sumatra). The present report shows its extended distribution to India.

Keywords: Andaman, India, Marantaceae, New Record, Stachyphrynium repens

Introduction

Marantaceae are one of the most derived families within the order Zingiberales (Kress, 1990). It includes 29 genera and *c*. 550 species of small to moderate-sized herbs distributed throughout the tropics with the exception of Australia (Andersson, 1998; Suksathan *et al.*, 2009). The family includes 8 species under 4 genera in India, mainly distributed in Northeastern, Peninsular regions and Andaman and Nicobar Islands (Suksathan & Borchsenius, 2005).

During the course of DBT and DST assisted projects for the revision of Indian Zingiberaceae and Marantaceae, the authors came across a species of Stachyphrynium from the wet evergreen forests of South and North Andamans, at altitude ranging from 25 to 45 m. Rhizomes collected from the field were transplanted in the Calicut University Botanical Garden (CUBG) that flowered in July 2008. Detailed studies revealed the identity of the specimen as S. repens, a native of Thailand and Sumatra, and hitherto reported from India. The present report forms a new distributional record and an addition to the Marantaceae flora of India. It is the only species in the genus having dark green variegated patterns on its leaves. The variegated pattern is somewhat variable, from small patches to large stripes.

Stachyphrynium repens (Körn.) Suksathan & Borchs., Taxon 54: 1086. 2005. *Phrynium repens* Körn., Bull. Soc. Imp. Naturalistes Moscou 35: 103. 1862. *Stachyphrynium jagorianum* (K. Koch) K. Schum. in Engler, Pflanzenr. 4(48): 48. 1902. *S. minus* K. Schum. in Engler, Pflanzenr. 4(48): 48. 1902. Fig. 1

Rosulate rhizomatous ground herb. Leafy shoots 11 - 11.5 cm long with 6 - 9 leaves. Leaves ovate, $8.5 - 9 \times 4 - 4.8$ cm, abruptly acuminate at apex, glabrous with dark green variegated pattern above, pale green below; petioles 3.5 – 3.8 cm long; pulvinus hairy. Inflorescence interfoliar, erect, simple, fusiform, 3.8 - 4 cm long, sometimes appear to protrude from the sheath of an accompanying leaf. Bracts ovate-oblong, distichous, $1.8 - 1.9 \times 0.9 - 1$ cm, pubescent at apex, pale green. Flower pairs 1 – 3 per special paraclade; prophylls $1.1 - 1.5 \times 0.2 -$ 0.4 cm, membranous, light green. Flowers 2.4 – 2.5 cm long, 1 or 2 open at a time, white; pedicels 4-5mm long, glabrous. Sepals 3, free, narrowly lanceolate, $3.5 - 4 \times c$. 1 mm, the dorsal one slightly larger than the others, membranous, grabrous, white. Corolla tube slender, 1.5 – 1.6 cm long, glabrous, hairy at mouth inside, hyaline, white. Corolla lobes deflexed and curled, translucent, pale white; dorsal lobe oblong, $8-9 \times c$. 3 mm, glabrous; lateral lobes oblong, $6-7 \times c$. 2 mm, rounded at apex, glabrous, 4 or 5-nerved. Staminodes united and adnate to the corolla tube; outer staminodes 2, subequal; larger one spathulate, $5-6 \times 2-3$ mm, wavy at margins, yellow towards margin; hood-like stamen appendage $3 - 3.5 \times c$. 2 mm, tip portion recurved downwards and petaloid in nature. Callose staminodes $4-5\times2-3$ mm, hairy at base inside; hairs downwardly directed; fertile stamen 1-celled, with a subulate, c. 1 mm long, thin appendage on one side; filament c. 1 mm long, adnate to the inner staminode; anther oblong, apiculate, yellow. Cucullate staminode hooded, $4-5 \times c$. 2 mm, enclosing the tip

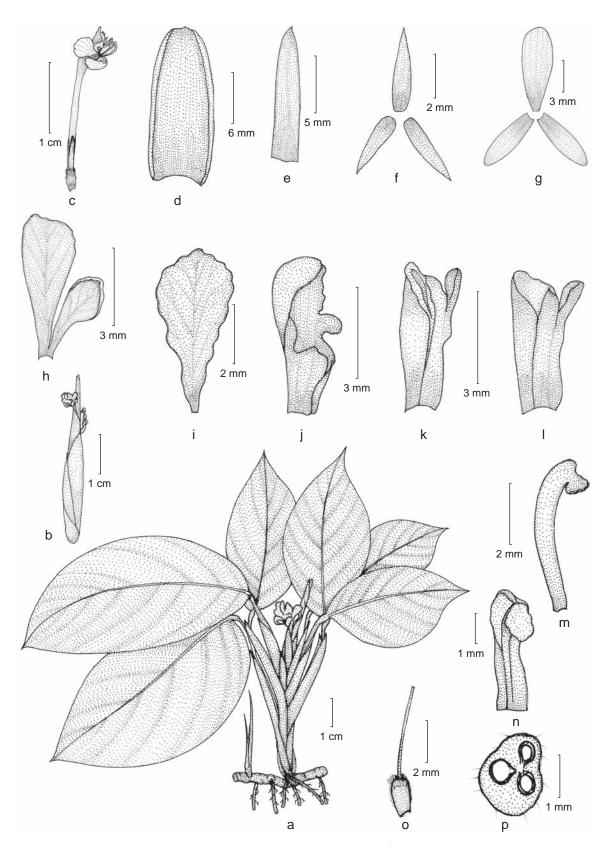


Fig. 1. *Stachyphrynium repens* (Körn.) Suksathan & Borchs.: a. Habit; b. Inflorescence; c. Flower; d. Bract; e. Prophyll; f. Sepals; g. Petals; h. Outer staminode and hood-like stamen appendage; i. Outer staminode; j. Cucullate staminode; k & I. Callose staminode & fertile stamen (front & lateral view); m & n. Stigma (lateral & front view); o. Ovary with part of style; p. Cross section of ovary.

of stigma; lower half fleshy, puberulous; appendage small. Ovary barrel-shaped, 2 - 2.5 mm long, densely hairy, 3-loculed; ovules axile; style adnate to staminodial tube, 4 – 5 mm long, hooked at apex; stigma truncate, irregularly lobed. Fruits not seen.

Flowering & Fruiting: July – October.

Habitat: Evergreen forests along the roads, as undergrowth.

Distribution: Cambodia, Southeast and Peninsular Thailand, Peninsular Malaysia and Indonesia. The present record of this species from Andaman shows its extended distribution in India.

Specimens examined: INDIA, Andaman and Nicobar Islands, Middle Andaman, Baratang 14.9.2007, Thomas & Shameer 113521 (CALI); North Andaman, Diglipur, 04.11.1977, Bhargava 6360 (PBL); Diglipur, 10.10.2007, Thomas & Shameer 113557; South Andaman, Kalatang, 19.9.2007, Thomas & Shameer 113540 (CALI).

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Literature Cited

Andersson, L. 1998. Marantaceae. In: Kubitzki, K. (Ed.), The families and genera of vascular plants. Vol. 4. Springer Verlag, Berlin. pp 278 – 293.

Kress, W.J. 1990. The phylogeny and classification of the Zingiberales. *Ann. Missouri Bot. Gard.* 77: 698 - 721.

Schumann, K. 1902. Marantaceae. In: Engler, H.G.A. (Ed.), Das Pflanzenreich. Heft 4(48). W. Engelmann, Leipzig. pp. 1 – 184.

Suksathan, P. & F. Borchsenius 2005. Nomenclatural synopsis of Marantaceae in Thailand. *Taxon* **54**: 1083 – 1090.

Suksathan, P., Gustafsson, M.H. & F. Borchsenius 2009. Phylogeny and generic delimitation of Asian Marantaceae. J. Linn. Soc., Bot. 159: 381 - 395.

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