

# *Selaginella opaca* Warb. (Selaginellaceae) – a new record for India

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## Abstract

The present paper reports a new recorded lycophytes *Selaginella opaca* Warb collected from the Yercaud hills in Eastern Ghats of Tamil Nadu. This species can be distinguished from other co-genera by its solitary strobilus, ovate leaf shape and distinctly glabrous margin of ventral and dorsal leaves. In the present study, taxonomic description, distribution and line drawings of this newly recorded species are provided.

**Key words:** Selaginellaceae, *Selaginella opaca* , Yercaud Hills, Eastern Ghats India, New record.

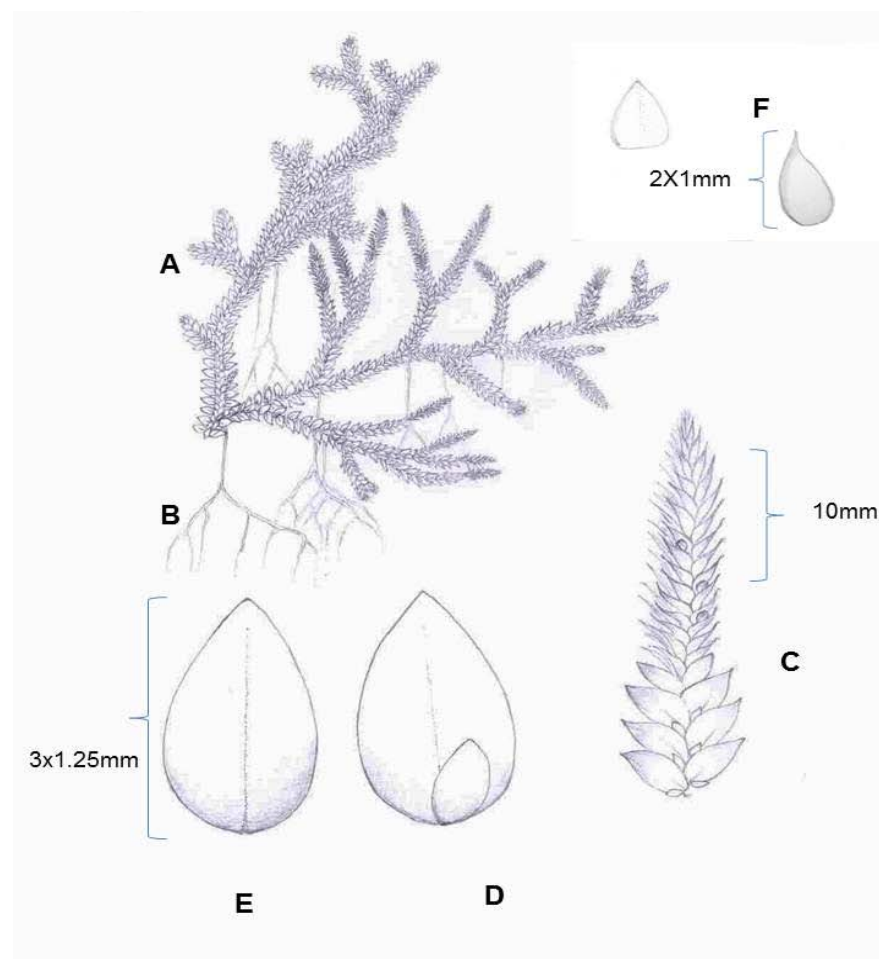
## Distribution

This species distributes in Java, Philippines (Luzon Island) Sumatra, Lombok, New Guinea, Ceram and Indonesia. In India, it grows on the moist rocky slopes with partially shaded areas in Yercaud hills of the Eastern Ghats of Tamil Nadu.

## Introduction

*Selaginella* a solitary genus belongs to the family Selaginellaceae, constitutes a natural and distinctive genus of about 700 species, chiefly occurring in tropical and subtropical regions throughout the world. The only comprehensive work on the Ferns of South India by R.H. Beddome (1864) included 271 species of ferns from South India and Sri Lanka. Kunze (1851) listed five species from the Nilgiri hills of the Southern Western Ghats. Alston (1945) enumerated 58 species of *Selaginella*, of which 45 species were reported from India. Meahra & Bir (1964) and Reed (1965-66) reported the occurrence of a few additional species from India. Dixit (1984) and Manikam & Irudayaraj (1992) reported 18 species from South India. Out of 18 species, 14 species were reported only from Eastern Ghats of Andhra Pradesh and Tamil Nadu. Until now, *Selaginella opaca* Warb was not reported from India. The present paper reports it from Yercaud hills of Eastern Ghats in Tamil Nadu (Fig 1&2).

***Selaginella opaca*** Warb. Ordinary Monsunia 1: 108, 122. 1900.  
*Selaginella cerebriformis* Alderw.in Bull. Jard. Bot. Buitenz. II, 7: 32-33. 1912.  
*Selaginella mearnsii* Hieron. Elmer, Leaf. Phil. Bot. 6: 2018, 16. 1913.



**Fig 1. Illustration of *Selaginella opaca* Warb**

**A: Mature individual; B: View of Rhizophore; C: Strobilus; D: Abaxial leaf surface; E: Adaxial leaf surface. F: Trophophyll**

*Selaginella pervaga* Hieron. Elmer, Leaf. Phil. Bot. 6: 2021, 17.1913.

Evergreen creeping heterophyllous lycophytes without erect or ascending stems. Stems 20-30cm, slender, pale-brown on drying, creeping, undersides and upper sides, irregularly and dichotomously branched, branches copiously pinate, lax. Rhizophores, wiry, originating from basal side of stem of branching, c.0.2 mm dia., axillary trophophylls present at branching. Trophophylls conspicuously dimorphic, arranged in 4 ranks (2-dorsal and 2-ventral) ascending, distant on the main stem contiguous on the branches, dark green membranous, margin entire. Ventral (lateral) trophophylls lanceolate, entire, obtuse at base, slightly oblique at apex, c.0.2 × 0.1 mm, sparsely ciliate margin; dorsal (ventral) trophophylls broadly ovate, c.3 × 1.25

mm, obtuse at base, acute at apex, entire, ciliate of margins. Strobili always solitary, tetragonus, c. 10×0.2mm, sporophylls tetragonus, dimorphic, resupinate ciliate, larger trophophyllous ovate-oblong, subacute, smaller sporophylls lanceolate, acuminate at apex. Megaspores pale yellow. Microspore orange.

## Phenology

Sporophylls are formed during November on wards and sorus mature in January.

## Economic potential

In Indonesia *S. opaca* locally known as *Pulalata* is used as a vegetable. It also

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used as a medicinal plant for curing wounds, menstrual disorders, post-child birth and to increase stamina (Setyawan, 2009). It also eaten by monkeys and ants in Yercaud hills in Eastern Ghats of Tamil Nadu.

#### Discussion and Conclusion

*Selaginella opaca* Warb morphologically looks more or less like *Selaginella proniflora* (Lam.) Bak. of India and *Selaginella lutchuensis* Koidz of Taiwan. It superficially resembles the former in general habit and it has lateral leaves

similar to those of the latter. However, it can be easily distinguished from *S. proniflora* (Lamk.) Bak. and *S. lutchuensis* Koidz by its leaf shape, glabrous leaves and solitary tetragonous strobili.

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## Announcement

### Exhibition Development Programme Workshop on Museums and Intangible Natural Heritage with focus on Methodology, 9-11 March 2013, Thiruvananthapuram

National Museum of Natural History (Ministry of Environment & Forests, Government of India), Delhi, in collaboration with Kerala State Biodiversity Board, Centre for Environment & Development, Jawaharlal Nehru Tropical Botanical Garden and Research Institute

The workshop is structured toward gaining an understanding of the applications of various methodologies of heritage mapping as a viable tool for the inventorisation of INH. The academic sessions will generally be through panel discussions.

Day 1: The morning session is designed to provide participants with an exposure to the PBR methodology. The afternoon session will have Experts on other methodologies with case studies from folklore, history, panchayath resource mapping, responsible heritage tourism etc.

Day 2: Field work to Chonampara tribal settlement where they will have field exercise involving PBR preparation with the participation of Kani tribes up to evening. There is only limited number of seats for this field work session.

Day 3: The morning session will have focus on Mudi yettu, with the actual performers from the four practicing families discussing various aspects of Mudi yettu with inputs from other Experts. This will be followed by a session on how to develop an Exhibition on INH based on the deliberations of the workshop. In the final session, the participants will summarize the core materials presented, the exercises undertaken and proceed with an evaluation of the workshop and learning outcomes.

Download Registration form from <http://nmnh.nic.in/inhthiruvananthapuram.pdf>, Registration Form may be filled up and returned to reach the Coordinator latest by 28th February 2013: Dr B. Venugopal, Director, National Museum of Natural History, Tansen Marg, New Delhi-110001. Email: [dirnmnh@gmail.com](mailto:dirnmnh@gmail.com); [ybha56@yahoo.com](mailto:ybha56@yahoo.com)