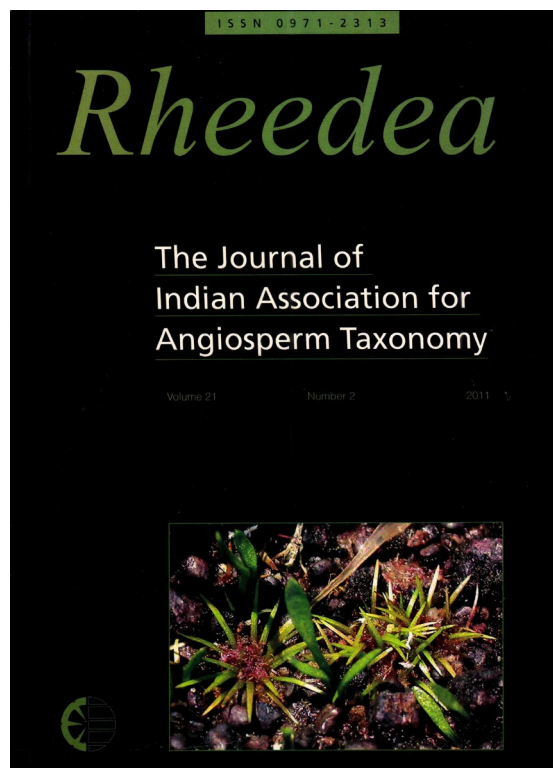




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# *Myriophyllum siamense* (Haloragaceae): A new record for India

C. Pramod\*, K.M. Manudev<sup>1</sup>, A.K. Pradeep<sup>2</sup> and Santhosh Nampy<sup>1</sup>

Department of Botany, Govt. Brennen College, Thalassery – 670 106, Kerala, India.

<sup>1</sup>Plant Systematics & Floristics Lab, Department of Botany, St. Joseph's College, Kozhikode – 673 008, Kerala, India.

<sup>2</sup>Department of Botany, University of Calicut, Calicut University P.O. – 673 635, Kerala, India.

\*E-mail: cpramod4@gmail.com

## Abstract

*Myriophyllum siamense* (Craib) Tardieu (Haloragaceae) is reported for the first time from Odisha in India. A description, photograph and relevant notes on the species are provided.

**Keywords:** Haloragaceae, India, *Myriophyllum siamense*, New Record

## Introduction

*Myriophyllum* L. (Haloragaceae), commonly known as 'water milfoil', a cosmopolitan genus consists of aquatic or semi-aquatic herbs. With c. 68 species, the genus has three main centres of distribution: Australia (42 species, 37 endemic), North America (14 species, 7 endemic) and India/Indochina with 10 species, 7 endemic (Meijden, 1969; Meijden & Caspers, 1971; Orchard, 1990; Mabberley, 2008; Moody & Les, 2010). In India, it is represented by 6 species (Hooker, 1878; Saxena & Brahmam, 1996; Sasidharan, 2004; Arshid & Wani, 2011; Arshid *et al.*, 2011). During a recent field survey along the eastern coastal belt of India, the authors came across an interesting population of *Myriophyllum* (initially thought to be a species of *Rotala*, also found growing along with them) from the wet, fine sandy area near Puri in Odisha. Since the specimens did not match with any of the known species of *Myriophyllum* from India, they were referred to Dr. Tony Orchard, an expert on *Myriophyllum* at the Tasmanian Herbarium. It was identified as *M. siamense* (Craib) Tardieu, previously known only from Malesia, Vietnam and Thailand. This collection represents the first ever record of the species for India. Hence, a detailed botanical description and photograph of the species are provided to facilitate its easy identification.

***Myriophyllum siamense*** (Craib) Tardieu, Adansonia 5: 37, ff. 1 – 4, 1965 & in Lecomte *et al.*, Fl. Cambodge, Laos & Vietnam 4: 128, ff. 1 – 4, 1965; Meijden, Blumea 17: 307, f. 1e, 1969; in Smitinand & K. Larsen, Fl. Thailand 2: 2. 1970; Meijden &

Caspers, Fl. Males. Ser. 1, 7(1): 257. 1971. *M. meizianum* Schindl. var. *siamense* Craib, Fl. Siam. 1(4): 591. 1931. **Fig. 1, 2**

Herbs, semi-aquatic, to 11 cm high, rooting at base. Stems erect to ascending, sparsely to much branched, glabrous, green. Leaves sessile, alternate, subopposite towards apex, linear-spathulate, 3 – 7 × 0.5 – 1 mm, entire at margins, fleshy, glabrous. Flower solitary in the upper leaf axils; the upper male; the lower female; bracteoles 0. Male flowers sessile. Sepals 0. Petals 2, erect, oblong to lanceolate, 0.5 – 0.7 × 0.2 – 0.3 mm, entire but distally crenate at margins with a purplish tinge, strongly recurved after anthesis. Stamen 1; filament 0.02 – 0.03 mm long; anther elliptic, 0.6 – 0.7 × 0.2 – 0.3 mm, mucronate at apex, yellow; pollen grains yellow. Female flowers sessile, 0.4 – 0.6 mm long. Sepals 0. Petals 0. Carpels 2, echinate; style shortly conical, distally set with 0.2 – 0.5 mm long hyaline hairs. Fruits c. 1 mm long, purplish; mericarps 2, oblongoid, c. 1 × 0.5 mm, connate at base, tubercled in rows.

**Habitat:** Sandy soil near ponds and marshes near coast.

**Distribution:** Malesia, southern Thailand, Vietnam; presently reported from India (Puri district, Odisha), also grown in the Botanical Garden of St. Joseph's College, Kozhikode.

**Specimens examined:** INDIA, Odisha, Puri district, Malligav, Road to Konark, c. 10 m, 3.12.2011,

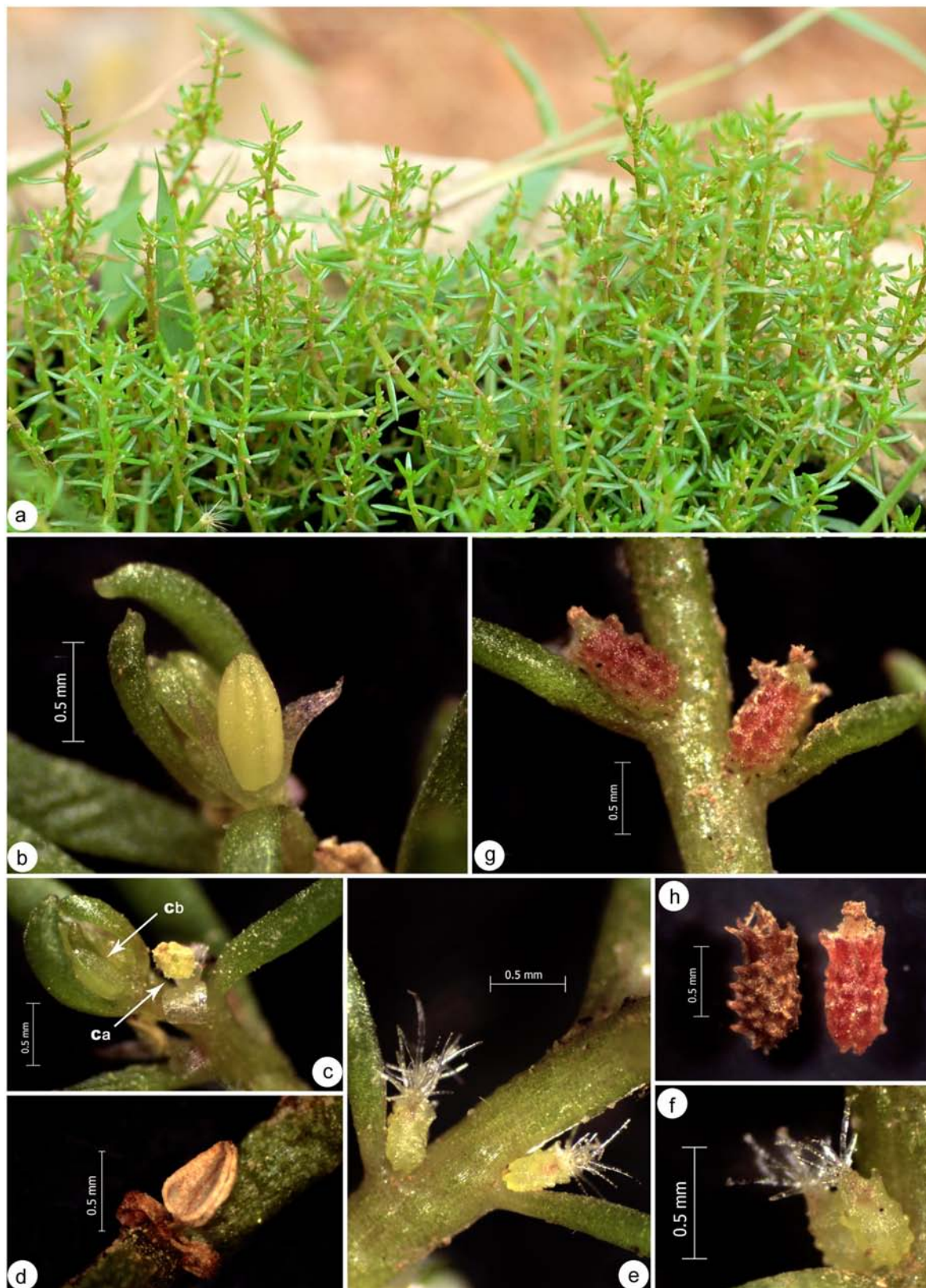


Fig. 1. *Myriophyllum siamense* (Craib) Tardieu. a. Habit; b. Male flower; ca. Male flower with dehiscent anther; cb. Terminal buds in the leaf axils; d. Male flower with dehiscent anther and strongly recurved petals; e. Female flowers showing hyaline stigmatic hairs; f. Female flower enlarged; g. Mature fruit; h. Mericarps (all from Santhosh Nampy & Manudev 3730).



Pramod 127628 (CALI); Malligav, Road to Konark, c. 10 m, 3.12.2011, *Santhosh Nampy* 3727 (DEV). **Kerala**, Kozhikode district, St. Joseph's College Botanical Garden (cultivated), 55 m, 26.3.2012, *Santhosh Nampy & Manudev* 3730 (DEV).

*Notes:* *Myriophyllum siamense* belongs to the subsection *Spirophyllum* Schindl. and is allied to *M. coronatum* Meijden, *M. meizianum* Schindl. and *M. bonii* Tardieu in having reduced staminate flowers, dicarpic pistillate flowers (tetracarpic in *M. bonii*) and a similar emergent, mat-like habit which lacks pinnate leaves (Moody & Les, 2010). However, *M. siamense* can easily be distinguished by its fruits having rows of tubercles.

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The authors are thankful to Dr. Tony Orchard, Tasmania, for help in identification and useful comments; Prof. Sheba M. Joseph, St. Mary's College, Sulthan Battery, for helping with collections; Mr. Vivek C. Paulose, Botanical Survey of India, Coimbatore, for literature; Mr. A.A. Peter, Laboratory Assistant, Dept. of Botany, St. Joseph's College, Kozhikode, for maintaining live collections. The first author is thankful to the University Grants Commission, Govt. of India, for Teacher Fellowship (UGC-FDP, XI Plan) and MKM, for Junior Research Fellowship.

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