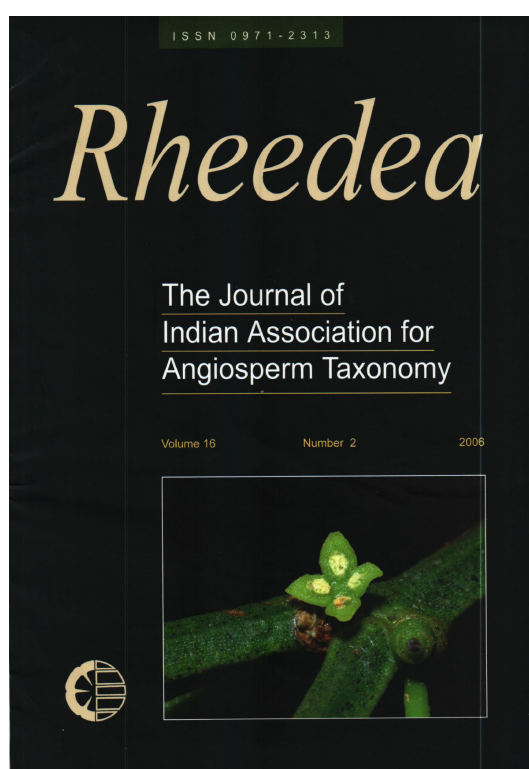




## First Report of *Ceratophyllum submersum* L. for Gangetic Plain

Satya Narain & Sanjay Mishra



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## First Report of *Ceratophyllum submersum* L. for Gangetic Plain

### Abstract

*Ceratophyllum submersum* L. (Ceratophyllaceae), collected from Ballia district in Uttar Pradesh is the first report of this species for Gangetic Plain. Three or four times forked leaves and nutlets with a single apical spine distinguish this species from the closely allied *Ceratophyllum demersum* L.

Keywords: *Ceratophyllum submersum*, Ballia, Gangetic Plain

### Introduction

*Ceratophyllum submersum* L. (Ceratophyllaceae) was earlier reported in India only from Chhatarpur of Madhya Pradesh (Duthie, 1903-1922; Kanjilal, 1933; Subramanyam, 1962; Raizada, 1976; Mishra & Shukla, 1997). This species is now reported first time for Gangetic Plain from Ballia district of Uttar Pradesh. Details are provided.

***Ceratophyllum submersum* L.**, Sp. Pl. ed. 2. 1409.1763; Mishra & Shukla in Mudgal, Khanna & Hajra, Fl. Madhya Pradesh 2: 633. 1997.

*Aquatic herbs*, monoecious, up to 0.5-1.0 m long, submerged in shallow, still or gently flowing water, true root absent; internodes 0.5-2.5 cm long. *Leaves* flaccid, 6-10 whorled, 1.5-2.5 cm long, 3-4 times dichotomously forked, filiform with 7-12 minutely dentate segments at apex. *Flowers* axillary, solitary, sessile, submerged; tepals 6-10, linear, 0.8-

1mm long, greenish-white, ciliate at apex. *Nutlet* ellipsoid or ovoid, compressed, c. 4 mm long, purple-black when ripe with a single soft spine at apex.

*Flowering & Fruiting*: January-March.

*Distribution*: Cosmopolitan; India (Madhya Pradesh and Uttar Pradesh), rare.

*Specimens Examined*: INDIA, Uttar Pradesh, Ballia District, Basantpur village, 5-3-05, Sanjay Mishra 21194 (Duthie Herbarium, Department of Botany, University of Allahabad).

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### Satya Narain and Sanjay Mishra

Duthie Herbarium, Department of Botany, University of Allahabad, Allahabad 211002, Uttar Pradesh, India.  
E-mail: sanjaymishra\_alld@yahoo.co.in

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