

## ***Ottelia ulvifolia* (Hydrocharitaceae): an addition to the flora of India**

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### **Abstract**

The paper presents result of floristic explorations along the Ganga River in Jharkhand. *Ottelia ulvifolia*, is reported as new to the flora of India.

### **Résumé**

Cet article présente les résultats d'explorations floristiques le long du fleuve Gange dans le Jharkhand. *Ottelia ulvifolia* est signalée ici comme nouvelle dans la flore de l'Inde.

Key Words: Bihar, New Plant Records, River Ganga.

Mots clés : Bihar, nouvelles observations de plantes, fleuve Gange.

### **Introduction**

Globally genus *Ottelia* Persoon (1805: 400) includes *c.* 23 species (POWO, 2024) mainly distributed in Tropical and S. Africa to Russian Far East and Australia, Brazil to Argentina (Mabberley, 2017) and in India it consists of a single species *O. alismoides* (Linnaeus, 1753: 535) Persoon (1805: 400) (Bhaumik, 2020). During the field survey along the Ganga River in Jharkhand, the authors collected an uncommon plant from Sahibganj district of Jharkhand (fig. 1), which was not reported so far in the floristic documentation of Bihar-Jharkhand (Singh *et al.*, 2001) as well as in India (Bhaumik, 2020). As a result, the species known as *Ottelia ulvifolia* (Planchon, 1849: 81) Walpers (1852: 510) is reported for the first time from India, which is highly significant from a phytogeographical perspective. The plant specimen was identified with the relevant literature, i.e. Hooker (1888), Duthie (1915), Bennet (1979), Singh *et al.* (2001), Uniyal *et al.* (2007), Bhaumik (2020) and Khanna *et al.* (2024). This paper records taxonomic treatment, description and note on phenology along with images of the plant in natural habitat and one the herbarium sheet for its easy identity.

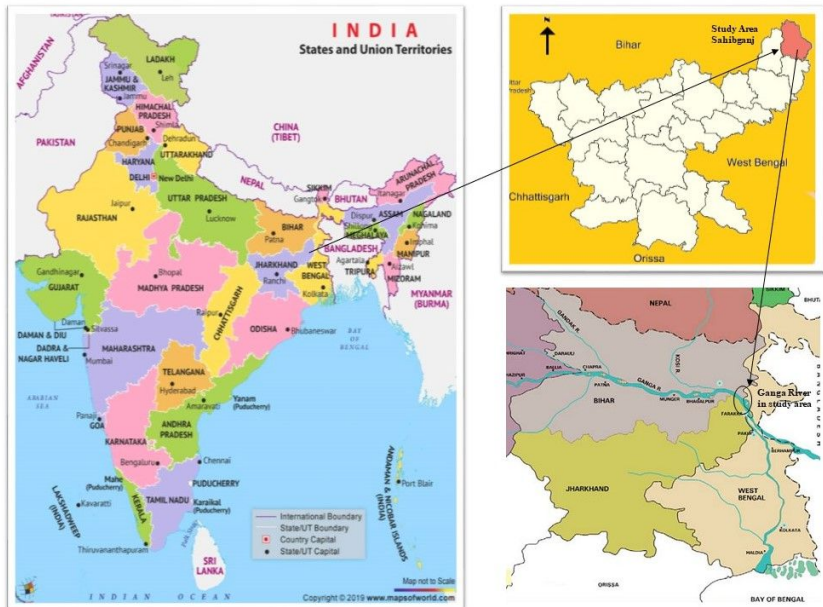


Figure 1: Map of Study Area (Jharkhand State in Republic of India)

## Materials and Methods

The vegetation survey along the Ganga River (pre-monsoon) in Jharkhand was conducted between March 2023 to May 2023 and the post-monsoon survey was conducted between October 2023 to November 2023. Currently accepted botanical names have been used following <http://www.ipni.org>. The voucher specimens were dried, pressed and mounted on herbarium sheets following Jain & Rao (1977) and deposited in Patanjali Research Foundation Herbarium (PRFH), Haridwar, Uttarakhand for future reference and records.

### Taxonomic treatment

*Ottelia ulvifolia* (Planchon) Walpers, *Annales Botanices Systematicae. Lipsiae* 3(3): 510 (1852). *Damasonium ulvifolium* Planchon, *Annales des Sciences Naturelles; Botanique*, sér. 3, 11: 81 (1849).

Material examined: Jharkhand, Sahibganj District, Moti Jharna, 20/10/2023, *Inam Mohammed 1713* (PRFH).

**Description** (fig. 2 & 3): Annual or rarely perennial, aquatic herb; stem erect, corm-like, simple or rarely forked. Leaves submerged or floating, in rosettes, crowded, radical or on petioles, thin but firm, 15-25 × 2-5 cm, linear-lanceolate to ovate-lanceolate, smooth, pale green to brownish-green, often with purple markings, margin wavy, entire or sparsely denticulate, veins prominent; petiole distinct or undifferentiated from a gradually tapering blade. Inflorescence appearing just above the surface of the water, peduncle triangular, 18-25 × 0.2-0.3 cm; spathe elliptic-oblong, ovate or nearly circular, 2.5-5 cm long, saccate, compressed, becoming much broader in fruit, 3-4 × 1.5-2 cm, green with brownish nerves, narrowly winged, orifice with a few irregular small teeth. Flower solitary, bisexual, perianth-tube just exerted from spathe. Sepals 3, 6-12 × 0.1-0.2 cm, linear-oblong, acute to obtuse, translucent, pale green or pinkish-brown. Petals 3, 2-2.5 × 0.6-0.9 cm, obovate, white or white with a yellow base or yellow, often wrinkled. Stamens 3-6; filaments flattened, 3-4 mm long; anthers small, yellow. Ovary 3-6 carpelled, narrowly ellipsoid, 1.5-1.8 × 3-4 mm; styles 3-6; stigmas 6-12, yellowish. Fruit 2-4 cm long,

ovoid to oblong-cylindric, green, opening by decay of the pericarp, enclosed in the spathe. Seed small, narrowly cylindrical, dark brown, covered with fine white hairs.

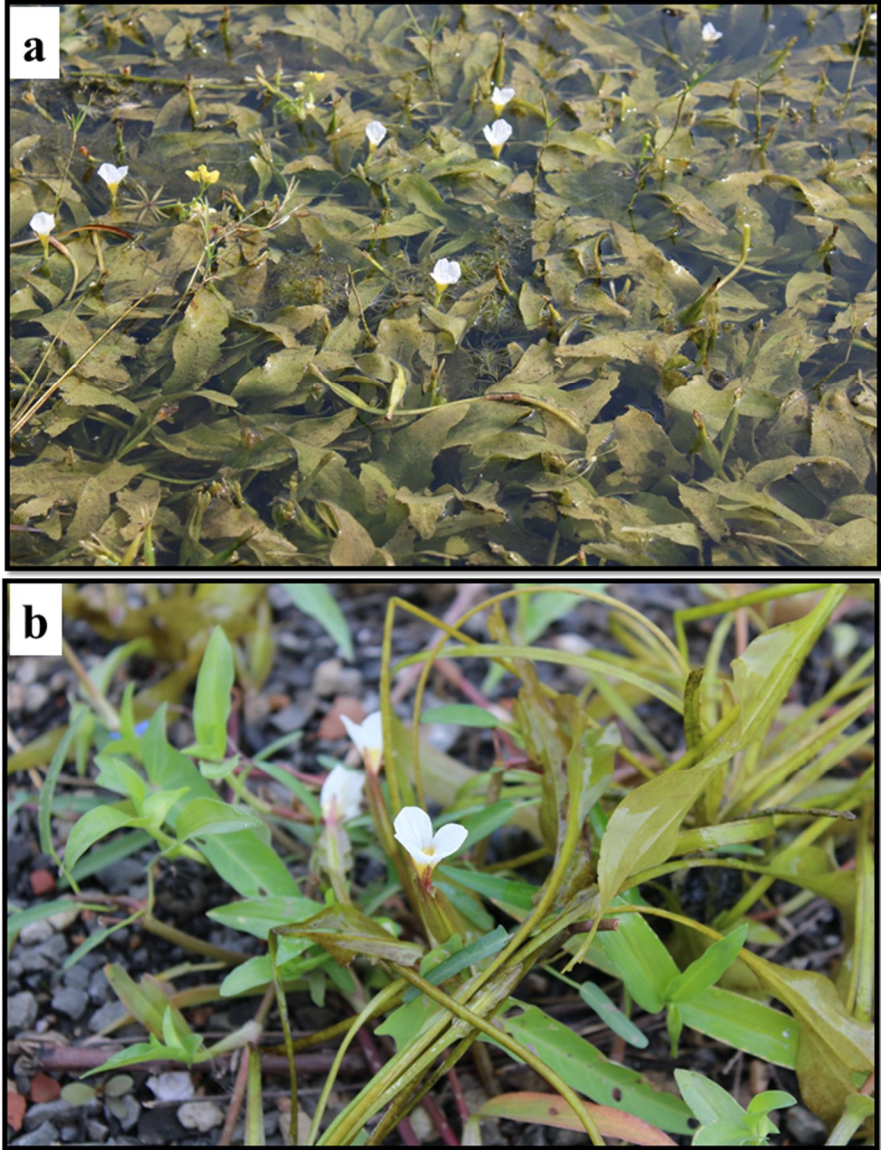


figure 2: *Otelia ulvifolia*. a & b – Plant with flowers in natural habitat. Photo Amit Kumar.

1713

(POR)



Patanjali Research Foundation Herbarium Haridwar-249405	
Collection Number: 1713	
Botanical Name:	
Ottelia ulvifolia (Planch.) Walp.	
Family: Hydrocharitaceae Habit: Herb	
Locality:	District/State:
Moti Jharna	Sahibganj, Jharkhand, India
Date of Collection:	Flowering & Fruiting:
20-10-2023	January-May
Ecological Notes: Rare; found in ponds and stagnant water.	
Collector:	Identified By:
Dr. Inam Malik	Anupam Srivastava 06/04/2024
Approved by:	
Acharya Balkrishna	

Figure 3: Herbarium Sheets of *Ottelia ulvifolia* [© Herbarium (PRFH), Haridwar, Uttarakhand].



**Distribution, ecology and phenology:** The native range of this species is Tropical & S. Africa, Madagascar and India (Sahibganj, Jharkhand). It is rarely found in pond and stagnant water. Flowering and fruiting occur from January to May.

### Key to the Indian Species of *Ottelia*:

1. Leaves usually broadly ovate to ovate-elliptic; seeds fusiform.....*O. alismoides*  
**1a** Leaves linear-lanceolate to ovate-lanceolate; seeds narrowly cylindrical.....  
 ..... *O. ulvifolia*

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