

## **FLORISTIC STUDIES OF AQUATIC AND SEMIAQUATIC ANGIOSPERMS OF RATU MAHARAJA POND, RANCHI, JHARKHAND**

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### **ABSTRACT**

The paper is the outcome of extensive study of Ratu Maharaja Pond, situated about 6 km away from Ranchi, Jharkhand. The study was conducted in the year 2005 and 2006. A total number of 32 aquatic and semiaquatic angiosperms were collected from the pond, belonging to 22 families and 26 genera. Out of these 12 families belong to dicot having 12 genera and 16 species, whereas 10 families belong to monocot having 14 genera and 16 species.

### **INTRODUCTION**

An ancient pond, named Ratu Maharaja Pond is situated about 6 km away from Ranchi which is the state capital of Jharkhand. It lies between 22°34'15" and 23°42'44"N latitude and 84°52'12" and 85°54'E longitudes. The pond serves for multipurpose activities for the neighbouring inhabitants. It is used for bathing, recreation and rearing fish. It is quite large having an area of more than 22 acres and is rich in aquatic vegetation. The pond was dug nearly in the year 1826. Initially it was huge in size but gradually it is shrinking in its size due to improper care and lack of maintenance.

Few studies are available on the aquatic vegetation of the area (Jha 1965, Singh 1990, Mukherjee 2001). However, Haines (1925), Mooney (1950), Bressers (1951), (Ghosh 1971) also dealt with some account of aquatic vegetation of the region. But no scientific literature is available on such a big pond of utmost importance with such a rich aquatic biodiversity.

### **MATERIALS AND METHODS**

In order to make an intensive and accurate survey and study of aquatic as well as semiaquatic angiospermic species, the pond was visited at short intervals covering all the seasons in such a manner that most of the plants were collected in flowering and fruiting conditions. During the survey the plants were observed carefully, fresh specimens were collected, brought in the laboratory in suitable carry bags, dissected and identified with the available keys.

### **RESULTS AND DISCUSSION**

A total number of 32 aquatic and semi aquatic species were reported from the pond belonging to 22 families and 26 genera. Out of these, 12 families belong to dicot having 12 genera and 16 species, whereas 10 families belong to monocot having 14 genera and 16 species. Name of all the plants are given in Table 1.

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Table 1: Names of the plants found in the pond.

S.N.	Name of the Plants	Family	Flowering & Time
1.	<i>Ranunculus sceleratus</i> Linn.	Ranunculaceae	Nov-Feb
2.	<i>Nymphaea nouchali</i> Burm f	Nymphaeaceae	Aug-Nov
3.	<i>Nymphaea stellata</i> Wild.	Nymphaeaceae	Aug-Nov
4.	<i>Nelumbo nucifera</i> Geartn.	Nelumbonaceae	July-Nov
5.	<i>Ludwigia adsdens</i> Linn.	Onagraceae	Whole year
6.	<i>Trapa natans</i> Linn.	Trapaceae	Sept-Jan
7.	<i>Enhydra fluctuans</i> Lour.	Asteraceae	Dec-March
8.	<i>Nymphoides indica</i> (Linn.) Kuntze	Menyanthaceae	Whole year
9.	<i>Nymphoides hydrophilla</i> Lour.	Menyanthaceae	July-Nov
10.	<i>Ipomea aquatica</i> Forsk.	Convolvulaceae	Sept-Feb
11.	<i>Utricularia stellaris</i> Linn.	Lentibulariaceae	Sept-Nov
12.	<i>Utricularia aurea</i> Lour.	Lentibulariaceae	Sept-Nov
13.	<i>Ceratophyllum demersum</i> Linn.	Ceratophyllaceae	Sept-Dec
14.	<i>Polygonum plebejum</i> Linn.	Polygonaceae	Nov-March
15.	<i>Polygonum barbattum</i> Linn.	Polygonaceae	Oct-March
16.	<i>Ceratophyllum demersum</i> Linn.	Ceratophyllaceae	Sept-Feb
17.	<i>Hydrilla verticillata</i> Linn.	Hydrocharitaceae	Nov-Jan
18.	<i>Vallisneria spiralis</i> Linn.	Hydrocharitaceae	Nov-March
19.	<i>Ottelia alismoides</i> Linn.	Hydrocharitaceae	Sept-Jan
20.	<i>Eichhornia crassipes</i> (Mart.) Solms	Pontederiaceae	Apr-Nov
21.	<i>Monocharia vaginalis</i> Burm.	Pontederiaceae	July-Nov
22.	<i>Monocharia hastata</i> Linn.	Pontederiaceae	July-Nov
23.	<i>Commelina benghalensis</i> Linn.	Comelinaceae	July-Nov
24.	<i>Typha angustata</i> Borey Chaub	Typhaceae	April-June
25.	<i>Aponogeton natans</i> Linn.	Aponogetonaceae	July-Dec
26.	<i>Sagittaria sagittifolia</i> Linn.	Alismataceae	Oct.-March
27.	<i>Potamogeton nodosus</i> Lamk.	Potamogetonaceae	Oct.-March
28.	<i>Eriocaulon cinerum</i> R. Br.	Eriocaulaceae	Aug-Nov
29.	<i>Cyperus iria</i> Linn.	Cyperaceae	Aug-Jan
30.	<i>Cyperus difformis</i> Linn.	Cyperaceae	Aug-Dec
31.	<i>Cyperus rotundus</i> Linn.	Cyperaceae	June-Jan
32.	<i>Hygrorhiza aristata</i> Nees	Poaceae	Oct-Dec

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