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Studies on some hydrophytes of Basargadh Pond, Ranchi, Jharkhand

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Abstract: A study was conducted in Basargadh pond at Ranchi for the assessment of hydrophytes from August, 2019- July, 2020. The pond supports a number of plants species which spend their whole life or part of their life cycle in water. During the study specimens are collected from the pond. A total number of 15 hydrophytes have been collected and reported from the study area. After collection the specimens are morphotaxonomically identified by the help of experts and pertinent literatures.

Key words: Morphotaxonomically, hydrophytes, dicotyledonous, monocotyledonous

INTRODUCTION

Basargadh pond is situated in Ranchi. The water of pond is used for various domestic purposes by neighboring inhabitants. The present communication deals with the study of various hydrophytes to estimate their status and condition of the pond.

MATERIAL & METHODS

During the course of study the plants were collected from the above said area. After collection the specimens were soaked in formaldehyde solution and dried with the help of herbarium press. After drying herbarium sheets were prepared and identified by experts with the help of suitable literatures. To make the accurate study the pond was visited in regular interval of time.

RESULTS

The results are based on the morphotaxonomical studies of the collected hydrophytes. A total number of 15

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aquatic and semi aquatic species are reported. Among these species, 10 belong to dicot families and 5 belong to monocot families. The taxonomic data of the plants collected and studied with their name, habitat, family and flowering/fruiting times are given below.

'A' stands for aquatic plants, 'SA' stands for semi aquatic plants and 'WL' stands for wetland species. These 'SA' and 'WL' plants grow in the surrounding wet and muddy soil of the pond.

Table 1- Name, Habitat, Family and Flowering/Fruiting time of collected Dicotyledonous hydrophytes

Sl.no	Species name	Habitat	Family	Flowering/Fruiting time
1	<i>Nymphaea nouchali</i> L	A	Nymphaeaceae	Aug-Nov
2	<i>Ipomea aquatica</i> Forsk	A	Convolvulaceae	Sep-Feb
3	<i>Ludwigia adscendens</i> L.	SA	Onagraceae	Throughout the year
4	<i>Ranunculus scleretus</i> L.	A	Ranunculaceae	Nov-Feb
5	<i>Utricularia stellaris</i> L.	A	Lentibulariaceae	Sept-Nov
6	<i>Enhydra fluctans</i> Lour.	A	Asteraceae	Dec-March
7	<i>Nymphoides hydrophylla</i> Lour.	A	Menyanthaceae	July-Nov
8	<i>Centella asiatica</i> L.	SA	Apiaceae	July-Aug
9	<i>Alternanthera sessilis</i> L.	SA	Amaranthaceae	Throughout the year
10	<i>Oxalis corniculata</i>	WL	Oxalidaceae	April-Sept.

Table 2: Name, Habitat, Family and Flowering/Fruiting time of collected Monocotyledonous hydrophytes

Sl.No	Species Name	Habitat	Family	Flowering/Fruiting time
1	<i>Commelina bengalensis</i> L.	WL	Commelinaceae	July-Nov
2	<i>Hydrilla verticillata</i> L.	A	Hydrocharitaceae	Nov-Jan
3	<i>Eichornia crassipes</i> Mart	A	Pontederiaceae	Apr-Nov
4	<i>Typha angustata</i> Borey & Chaub	WL	Typhaceae	Apr-June
5	<i>Cyperus rotundus</i> L.	WL	Cyperaceae	June-Jan

DISCUSSION

In this present study total 15 hydrophytes have been identified and reported. Among these 10 species belong to dicot families and 5 species belong to monocot families. The plants like *Nymphoides hydrophylla*, *Ludwigia adscendens*, *Nymphaea nouchali*, *Enhydra fluctuans* represents that the pond is exposed to domestic sewage.

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