

Preliminary survey of Plant diversity in Bhadra Fish Farm, Karnataka

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Abstract: The present study is based on the preliminary survey on terrestrial and semi aquatic plant resources of Bhadra fish farm, Karnataka during 2009-2010. The study reports on 30 plant species belonging to 26 genera and 21 families, along with their utility. Among plant families *Arecaceae* and *Fabaceae* are dominant with 3 species followed by *Moraceae*, *Poaceae*, *Apocynaceae*, *Typhaceae* and *Solanaceae* with 2 species each respectively and rest of the families with 01 species each. Peoples of this area possess good knowledge of plants used for different purposes, but their continuous exposure to modernization and cattle grazing may result in extinction of the species in Bhadra fish farm of Karnataka.

Key Words: Plant resources, Bhadra fish farm, Karnataka, species.

1. INTRODUCTION:

Floristic inventory and diversity studies help us to understand the species composition and diversity status of forests (Phillips et al., 2003), which also offer vital information for forest conservation (Gordon and Newton, 2006). Quantitative inventories, moreover, help identify species that are in different stages of vulnerability (Padalia et al., 2004) as well as the various factors that influence the existing vegetation in any region (Parthasarathy, 1999; Sathish et al., 2013).

In this background, the present study was carried out in Bhadra fish farm of Malnad region of Karnataka state in Shivamogga districts to throw light on floristic structure and diversity.

2. MATERIALS AND METHOD:

Study Area

Bhadra fish farm, Karnataka which is located at 13° 41' N latitude and 75° 38' E longitude.

For the documentation of information and collection of plant material, several field visits were undertaken in Bhadra Fish farm areas during the period 2009 -2010. Data presented here is based on personal observations and methodology used is based on the standard methods (Jain and Rao, 1997; Jain, 1999 ; Jain and Mudgal, 1999; Sharma and Singh, 2001; Singh and Subramanyam, 2008; Vijigiri Dinesh and Sharma, 2012). The collected plant specimens were identified with the help of recent and relevant floras and confirmed from the authentic specimens. Plant specimens with their botanical names with their family are depicted in Table 1.

3. RESULTS AND DISCUSSION:

The present study reports on 30 plant species belonging to 26 genera and 21 families. Among plant families *Arecaceae* and *Fabaceae* are dominant with 3 species followed by *Moraceae*, *Poaceae*, *Apocynaceae*, *Typhaceae* and *Solanaceae* with 2 species each and rest of the families with 01 species each respectively (Figure 1) .

Many trees were very old and appear to be carefully conserved by the peoples looking to the benefits such as small timber for construction and agricultural purposes, fuel wood, fruits, fodder and other benefits rendered by trees (Shivanna et al., 2005). Species such as *Ficus religiosa* was attached with religious sentiments and they were conserved with great care. The fruit of *Phoenix sylvestris* is edible and good in heart complaints, abdominal complaints, fevers, vomiting and loss of consciousness.

It is observed that Bhadra fish farm area is very potential for the plant resources for sustainable utilization. It provides a good platform for plant researchers for the identification of new molecules for the treatment of diseases of modern age This knowledge can be used for the growth of small industry for the benefit of mankind. Efforts should be taken to create awareness among the people about the importance of plants, environment and sustainable utilization of biological resources.

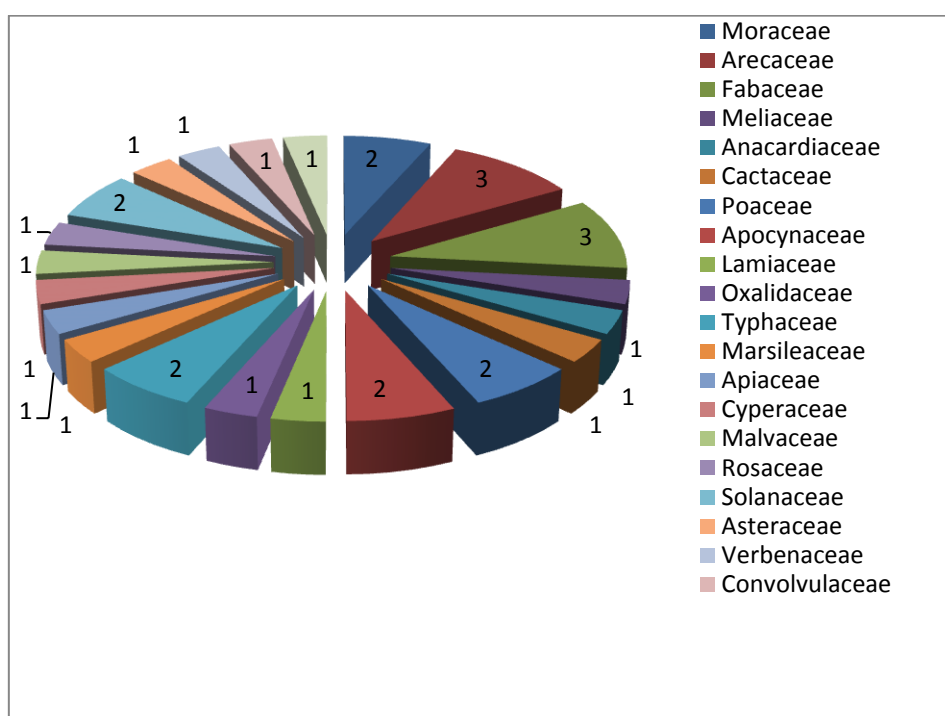


Figure1. Number of Plants in Each Family at Bhadra fish farm, Karnataka

Table 1:List of Plants recorded in Bhadra Fish Farm, Karnataka

Sl. No	Botanical Name	Family	
1	<i>Arachis hypogea</i>	Fabaceae	
2	<i>Azadirachtha indica</i>	Meliaceae	
3	<i>Areca catechu</i>	Arecaceae	
4	<i>Cocos nucifera</i>	Arecaceae	
5	<i>Cynodon dactylon</i>	Poaceae	
6	<i>Calotropis procera</i>	Apocynaceae	
7	<i>Calotropis gigantea</i>	Apocynaceae	
8	<i>Centella asiatica</i>	Apiaceae	
9	<i>Cyperus iria</i>	Cyperaceae	
10	<i>Chromolaena odorata</i>	Asteraceae	
11	<i>Ficus religiosa</i>	Moraceae	
12	<i>Ficus benghalensis</i>	Moraceae	
13	<i>Grass sp</i>	poaceae	
14	<i>Hibiscus rosa sinensis</i>	Malvaceae	
15	<i>Ipomea carnea</i>	Convolvulaceae	
16	<i>Leucas aspera</i>	Lamiaceae	
17	<i>Lantana camera</i>	Verbenaceae	
18	<i>Mangifera indica</i>	Anacardiaceae	
19	<i>Marsilea quadrifolia</i>	Marsileaceae	
20	<i>Monochoria vaginalis</i>	Pontederiaceae	
21	<i>Opuntia sp.</i>	Cactaceae	
22	<i>Oxalis corniculata</i>	Oxalidaceae	
23	<i>Phoenix sylvestris</i>	Arecaceae	
24	<i>Prosopis juliflora</i>	Fabaceae	
25	<i>Rosa sp.</i>	Rosaceae	
26	<i>Senna tora</i>	Fabaceae	
27	<i>Solanum myriacanthum</i>	Solanaceae	
28	<i>Solanum nigrum</i>	Solanaceae	
29	<i>Typha latifolia</i>	Typhaceae	
30	<i>Typha angustifolia</i>	Typhaceae	

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