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Study on Terrestrial and Semi Aquatic Floristic Diversity in Fish Seed Rearing Center at M.N Camp of Chikmagalur District, Karnataka

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ABSTRACT

The present investigation is based on the survey on terrestrial and semi aquatic plant resources of Fish seed rearing farm at M.N Camp of Chikmagalur district, Karnataka during 2015-2016. In this study we have reported a total of 43 plant species belonging to 39 genera and 26 families, along with their utility. Among plant families Fabaceae and Euphorbiaceae are dominant with 6 and 3 species respectively . 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 fish seed rearing farm at M.N Camp of Chikmagalur district of Karnataka.

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).

Enhanced human activities have resulted in the rapid decrease in the ecosystem leading to a decline in floristic diversity. Habitat fragmentation is considered by many to be the most serious threat and is the primary cause of the present extinction crisis (Wilcox and Murphy, 1985; Lovejoy et al., 1986; Wilcove et al., 1986; Sringeswara et al.,2014).

Increasing human population in the last few decades, demanding development in various areas has resulted directly or indirectly in sudden and often for reaching disturbances in natural ecosystem (Raizada & Vaid 1957; Vinayaka & Krishnamurthy , 2016).

In this background, the present study was carried out in Fish seed rearing center of Malnad region of Karnataka state in Chikmagalur districts to throw light on floristic structure and diversity.

2. Materials and Method

Study Area

Fish seed rearing center is under the control of Training center of Bhadra fish farm, Karnataka which is situated at 13º 41' N latitude and 75º 38' E longitude. The area of this farm is about 35 acre with 72 earthen ponds and 02 cement cistern ponds for fish seed rearing. The depth of these ponds varied from

For the documentation of information and collection of plant material, several field visits were undertaken during the period 2015 -2016. 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 investigation reports on 43 plant species belonging to 39 genera and 26 families. Among plant families Fabaceae and Euphorbiaceae are dominant with 6 and 3 species respectively followed by Amaranthaceae, Poaceae, Cyperaceae, Asteraceae, Apocynaceae, Typhaceae, Lamiaceae, Verbenaceae, Myrtaceae 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 *Calotropis gigantea* 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.

Harish Kumar and Kiran (2017) carried out survey on terrestrial and semi aquatic plant resources of Bhadra fish farm, Karnataka . Their study reported a total of 30 plant species belonging to 26 genera and 21 families, along with their utility. 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.

It is observed that fish seed rearing camp at M.N camp` 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. Conservation of plant diversity is a new challenge and this patterns of distribution of many parameters that can be used to distinguish the abundance and variety at different taxonomic as well as at differential spatial scales.

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Table 1:List of terrestrial & semi aquatic plants in Fish seed rearing farm of M.N Camp, Karnataka

Sl. No	Botanical Name	Family
1.	***Azolla pinnata***	**Salviniaceae**
2.	***Acacia auriculiformis***	**Fabaceae**
3.	***Alternanthera sessilis***	**Amaranthaceae**
4.	***Amaranthus spinosus***	**Amaranthaceae**
5.	***Bergia capensis***	**Elatinaceae**
6.	***Cynodon dactylon***	**Poaceae**
7.	***Cassia fistula***	**Fabaceae**
8.	***Coccinia indica***	**Cucurbitaceae**
9.	***Cyperus difformis***	**Cyperaceae**
10.	***Cyperus iria***	**Cyperaceae**
11.	***Chromolaena odorata***	**Asteraceae**
12.	***Calotropis procera***	**Apocynaceae**
13.	***Calotropis gigantea***	**Apocynaceae**
14.	***Citrus limon***	**Rutaceae**

15.	*Centella asiatica*	Apiaceae
16.	*Delonix regia*	Fabaceae
17.	*Euphorbia hirta*	Euphorbiaceae
18.	*Ficus racemosa*	Moraceae
19.	*Glyricidia sepium*	Fabaceae
20.	*Grass sp*	Poaceae
21.	*Hydrilla verticillata*	Hydrocharitaceae
22.	*Ipomea carnea*	Convolvulaceae
23.	*Jatropha curcus*	Euphorbiaceae
24.	*Leucas aspera*	Lamiaceae
25.	*Lantana camera*	Verbenaceae
26.	*Marsilea quadrifolia*	Marsileaceae
27.	*Monochoria vaginalis*	Pontederiaceae
28.	*Mimosa pudica*	Fabaceae
29.	*Oxalis corniculata*	Oxalidaceae
30.	*Phoenix sylvestris*	Arecaceae
31.	*Parthenium hysterophorus*	Asteraceae
32.	*Phyllanthus reticulata*	Phyllanthaceae
33.	*Psidium guajava*	Myrtaceae
34.	*Ricinus communis*	Euphorbiaceae
35.	*Solanum sp.*	Solanaceae
36.	*Senna tora*	Fabaceae
37.	*Stachytarpheta sp*	Verbenaceae
38.	*Solanum surattense*	Solanaceae
39.	*Syzygium cumini*	Myrtaceae
40.	*Typha latifolia*	Typhaceae
41.	*Typha angustifolia*	Typhaceae
42.	*Tectona grandis*	Lamiaceae
43.	*Tinospora cordifolia*	Menispermaceae

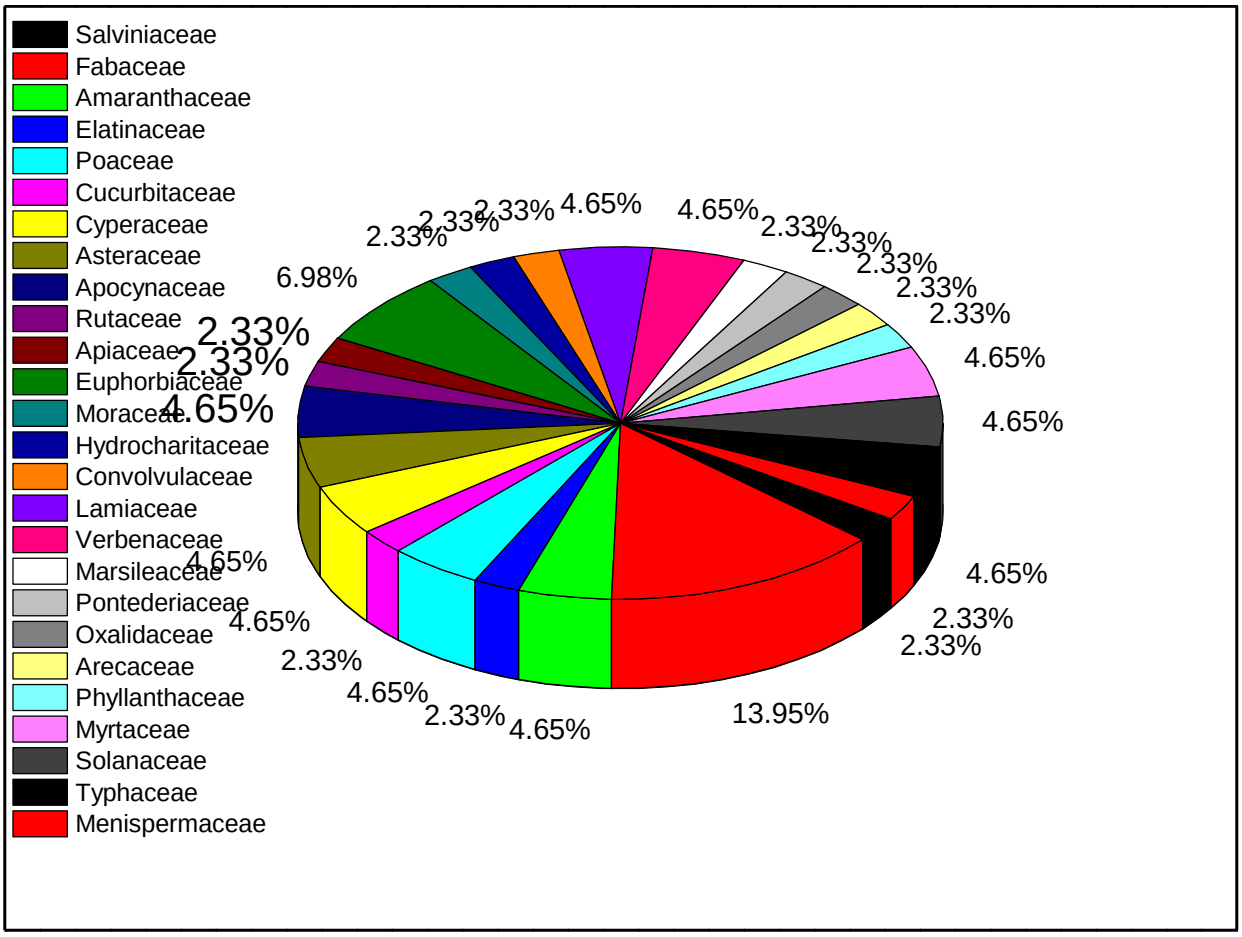

Figure1. Number of plants in each family at Fish seed rearing farm at M.N Camp of Chikmagalur district, Karnataka

