



Aquatic and Marshy Plants of four selected Ponds in Venganoor Grama Panchayat, Trivandrum District, Kerala, India

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Abstract

The aquatic and marshy flora of four ponds located in Venganoor grama panchayat, Thiruvananthapuram district, Kerala were studied for a period of 12 months. Altogether 20 genera of aquatic and marshy macrophytes were identified in the present investigation. The physico-chemical characteristics of pond water to be altered due to these aquatic plants. We have found a general relationship between trophic status of a water and the aquatic plants present there.

Keywords: Marshy, plants, ponds, venganoor.

Introduction

Hydrophytes can be defined as plants of wet¹. Helophytes are hydrophytes with at least 1 m of aerial growth and plants whose roots are permanently in ground water, also can be termed "hydrophytes". Evaluation of the biological attracted the attention of researchers since long. Many workers have tried to establish relationship between trophic status of water bodies and aquatic plants². Agarkar³ stated that eutrophic water bodies are characterized by the presence of aquatic plants⁴. Kaul⁵ opined that aquatic macrovegetation plays important role in maintaining ecological balance by nutrient recycling. Varshney⁶ and Oommachan⁷ have designated certain aquatic plant species as pollution indicators. McVea and Boyd⁸ have reported that an aquatic plant alters the physico-chemical characteristics of pond water.

Venganoor grama panchayat is blessed with different water bodies like natural ponds, temple ponds, lake and pools. The study area is an ordinary village, 13 KM away south of Thiruvananthapuram city. It lies between 80 4'N latitude and 770 33' Longitude, embedded with rich vegetation and is stretched about 10sq. KM. in Thiruvananthapuram taluk of Thiruvananthapuram district of Kerala state. The climate of this area is moderately humid and variation in temperature is a little. The study area receives both south west and north east monsoon.

The present investigation was aimed to study the aquatic and marshy plants of four ponds of Venganoor grama panchayat, Thiruvananthapuram district, Kerala.

Material and Methods

This collection was made depending upon occurrence of macrophytes. The macrophytes started growing during April

and reached peak in July-August; then gradually diminished after September. During winter, the macrophytes were greatly reduced. Aquatic vegetation was identified by consulting Fasseit⁹ and Gupta¹⁰.

Results and Discussion

In this research, it is found that all the ponds have distribution of the hydrophytes and marshy plants. Koliyoor Sarkar Kulam is rich with the species, when compared to other ponds. But in Puthu Kulam the diversity is comparatively less. Puthu Kulam is a temple pond and therefore seasonal cleaning is there. Also the temple management imposes restrictions over misuse of holy ponds, therefore they remain comparatively clean. This may be the reason for the less diversity in the ponds. This argument is supported with the findings of Varshney, Jacklin and Regini¹¹⁻¹⁴. During the study period the species of *Centella*, *Lemna*, *Nymphoea* were present throughout the investigation. The same finding was there in the research of Oommachan *Microcystis*, *Wolffia*, *Alterintheria* etc are found as the rare representation.

Conclusion

In the present investigation, we found considerable macrovegetation in different ponds which was selected for the research. The increased number of macro vegetation indicates that the water quality of these reservoirs is going towards eutrophied condition.

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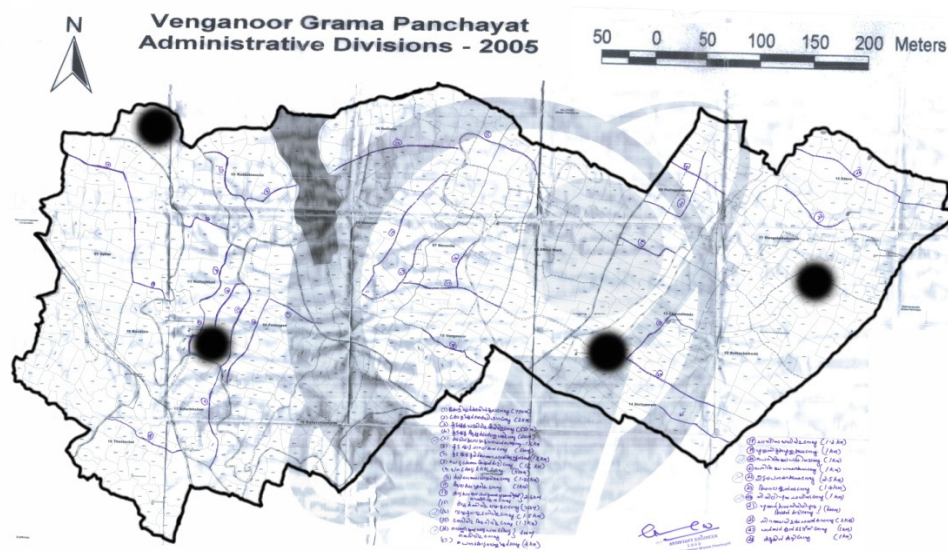


Figure-1

Table-1
 Distribution of Hydrophytes and Marshy plant species in study area

SI No.	Hydrophytes and Marshy plant species	Marthandam Kulam	Muttacaud Kulam	Koliyoor Sarkar Kulam	Puthukulam
1	Alternanthera philoxeroides Martius	-	-	+	-
2	Bacopa monnerii L.	+	-	+	+
3	Centella asiatica L.	+	+	+	+
4	Chara sp.	+	+	+	-
5	Cyperus dilutus	-	-	+	+
6	Enhydra fluctuans Lour	-	-	-	+
7	Hydrilla verticillata	-	+	+	-
8	Hygrophila auriculata Schumacher	-	-	+	-
9	Ipomea aquatica Forsk	-	-	+	-
10	Lemna aequinoctialis	+	+	+	+
11	Microcystis sp.	-	-	+	-
12	Monochoria hastate Solms	+	-	-	-
13	Myriophyllum spicatum L.	-	+	-	-
14	Nelumbo nucifera Gaertn.	-	+	+	-
15	Neptunia prostrat Lamarck	+	+	+	-
16	Nymphaea nouchali Burm.	+	+	+	+
17	Ottelia alismoides L.	-	-	-	+
18	Sagittaria guavanensis	+	-	-	-
19	Vallisnaria spiralis L.	+	+	+	-
20	Wolffia globosa	-	-	+	-

+Present -Absent

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