Macrophytes Diversity of Chora Lake of Bhadrawati Tehsil, District- Chandrapur (M.S.), India

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Abstract

Macrophytes are the conspicuous plants that dominate wetlands, shallow lakes and streams. Macrophytes contribute to maintaining key function and related biodiversity in freshwater ecosystems and to provide the needs of human societies. These plants provide physical structure, increase habitat complexity and heterogeneity and affect various organisms like invertebrates, fishes and waterbirds.The present paper describes the diversity of macrophytes of Choralake of Bhadrawatitehsil, Chandrapur district, Maharashtra State from February 2022 to January 2023in which 15 species belonging to4 groups such as 6 Free floating suspended submerged, 5Rooted floating leaves weeds, 2 Rooted submerged hydrophytes and 2Submerged floating weeds were recorded. Among different macrophytes, *Ipomeaaquatica*were found in abundance in all the sites of lake.

KEYWORDS : Macrophytes, Choralake, biodiversity

Introduction

Aquatic plants are plants that have adapted to living in aquatic environments (saltwater or freshwater). They are also referred to as hydrophytes or macrophytes. These plants require special adaptations for living submerged in water, or at the water's surface.

The village Chora is 19 km away from Bhadrawatitahsilin Chandrapur district of Maharashtra State, India and situated on the North side. It is situated at about 718 m above the mean sea level and is at 20˚ 11' 52.97" N latitude and 79˚ 14' 11.01"E longitude.The depth of water 23feet in mansoon and 6 feet in summer season.During the last few decades considerable studies on aquatic macrophytes from different freshwater bodies of India and abroad. This work has therefore undertaken to document the aquatic macrophytes of Choralake of Bhadrawatitehsil.

Materials and Methods

The aquatic macrophyteswere collected for the period of 1years i.e. February 2022 to January 2023 by visiting the lake. Macrophytes in shallow waters were collected directly while those from deeper water with the help of long handled hook. On collection the specimen were thoroughly washed, excess water soaked with filter paper, kept in polythene bags lined with filter paper and brought to the laboratory and preserved in 10% formalin and observed.The specimens were identified up to species level as per the guidelines of Kodarkar (1994).

Result and Discussion

Aquatic plants serves as a good source of food to mankind and animals thus forming a palatable food for water birds and a best for aquatic wild life conservation practices (Kiran*et al.,* 2006). Aquatic vesicular plants are important indicator of water pollution (Shimoda, 1984). Aquatic plants are important as they serve as substratum to different micro and macrofauna (Raut and Pejawar, 2005).

In the present study altogether15 species belonging to 4 groups such as 6 Free floating suspended submerged, 5 Rooted floating leaves weeds, 2 Rooted submerged hydrophytes and 2 Submerged floating weeds and the data is tabulated in TableNo. 1. Several workers have conducted macrophytes survey in lakes from different parts of India viz. Alwarlakes,Alwar, Rajasthan, Sagarlake, Sagar, Madhya Pradesh (Joshi et al., 1987), Sharma and Singhal (1988) recorded 11 species of macrophytes from a trophical lake. Sarrornagar lake, Hyderabad, Andhra Pradesh (Kodarkar, 1996), Meshram and Dhande (2000) also recorded the aquatic macrophytes in Wadali lake, Amravati and stated that the macrophytes stimulate the growth of phytoplankton and help in the recycling of the organic matter. Kiran*et al.,* (2006) recorded 15 species of macrophytes the fish culture ponds at Bhadra fish farm, Karnataka. GameandSalaskar (2007) recorded the macrophytes on Malchmali lakes, Thane, Maharashtra.Dhore and Luchare(2014) recorded 15 species of macrophytes in Yevatmal district.B.R.Kiran (2015) recorded 13 species of macrophytes belonging to 11 families in Jannapura tank of Bhadravathitaluk, Karnataka.R. Lakshmanan, S.A. Gathi (2018) reported 37 species belonging to 21 families and 33 genera from Selected wetlands of Tirunelveli district Tamil Nadu, B.K. Dalasingh et.al (2019) found 2 rare species was documented from Gadakharad lake in Different Aquatic Habitats of Puri District, Odisha and AmolBadole*et. al*(2021) recorded 44 species of 37 genera belonging to 26 families of lakes around Gondia City, Maharashtra and PriyankaGautam et. al. (2021) recorded 24 species of macrophytes in Manikamaun wetlands in North Bihar.

Table 1 : Biodiversity ofMacrophytes of Choralake.

Sr. No.	**Types**	**Name of macrophytes**
1.	Submerges floating weeds	*Nymphaeaodorata*
2.	Submerges floating weeds	*Utricularia Sp.*
3.	Rooted floating leaves weeds	*Marsileaquadrifolia*
4.	Rooted floating leaves weeds	*Nelumbonucifera*
5.	Rooted floating leaves weeds	*Nymphaeatuberosa*
6.	Rooted floating leaves weeds	*Trapanatans*
7.	Rooted floating leaves weeds	*Ninfeaazzura*
8.	Free Floating Suspended submerged	*Lemna minor*
9.	Free Floating Suspended submerged	*Azollacarolimana*
10.	Free Floating Suspended submerged	*Salviniarotunditolia*
11.	Free Floating Suspended submerged	*Pistiastratiates*
12.	Free Floating Suspended submerged	*SalviniaSp.*
13.	Free Floating Suspended submerged	*Nymphidis Sp.*
14.	Rooted submerged hydrophytes	*Hydrilla Sp.*
15.	Rooted submerged hydrophytes	*Ipomoea aquatic*

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