

STUDIES ON FRESH WATER ALGAL DIVERSITY OF DOKEWADA RESERVOIR

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Received: 18 Sep 2021

Accepted: 20 Sep 2021

Published: 21 Sep 2021

ABSTRACT

The present paper deals with the Study of Algal Diversity of Dokewada Reservoir in Beed district Marathwada region Maharashtra. The survey is carried out for the period of one year Jun-2016 to May-2017. Algal samples were collected for the monthly intervals. In the present investigation 63 taxa under 27 Genera of Chlorophyceae, 32 species under 12 Genera of diatoms (Bacillariophyceae), 45 species under 16 Genera of Cyanophyceae, 2 species under 2 genera of Charophyceae, 6 species under 3 genera of Euglenophyceae. Winter and summer seasons are suitable for Chlorophyceae, summer season is suitable for Cyanophyceae. winter and Summer seasons are suitable for diatoms; Charophyceae is not showing seasonal variation. Chlorophyceae was dominant followed by Cyanophyceae, Bacillariophyceae, Euglenophyceae and Charophyceae.

KEYWORDS: *Dominant, Suitable and Variation.*

INTRODUCTION

Algae are organisms or living things that are spread all over the world. Algae constitute a diverse group of autotrophic organism that occur in habitats ranging from marine, fresh water to desert stands and from hot boiling springs to snow and ice. Algae plant body ranges from a single cell to complex multicellular structures. In fresh water algae have numerous environmental functions such as regarding of nutrients, primary producers in the food chain; they are also useful tool for the assessment of water quality.

MATERIAL AND METHOD

For the experimental study samples were collected in the monthly intervals of June 2016 to May 2017 for the period of year. The samples were collected from the four sites of Dokewada reservoir of Beed District, Marathwada Region, Maharashtra. All the samples were preserved in 4% formalin solution on the spot geographical position; sample no. date of collection etc. of each locality was also entitled in the field diary and were brought to the research laboratory of Department of Botany, Mrs. K.S.K. College, Beed, Maharashtra, for further investigation. Samples were observed under the microscope in laboratory and identified with standard literature (Pal B.P. et.al.1962, Prescott 1951, Desikachary 1959 Smith G.M. 1950).

RESULTS AND DISCUSSION

The study area Dokewada reservoir is situated in Beed District of Maharashtra. The survey was carried out for the period of one year Jun-2016 to May-2017. A total of 148 species under 60 Genera were identified and recorded from four

sites of Dokewada reservoir Beed District of Maharashtra. There microalgae belonging to five classes Chlorophyceae (green algae), Charophyceae, Bacillariophyceae (diatoms), Euglenophyceae, Cyanophyceae (blue green algae). Maximum algal taxa belongs to green algae followed by Cyanophyceae, diatoms, Euglenophyceae and Charophyceae. Similar kind of work was done by, (Kamat N.D. 1963, 1971, Astekar P.V. 1980, Astekar P.V. and Kamat N.D. 1980, Minhaj Akhtar Usmani, et.al. 2016, Aher N.H. et.al 2017). Awadhesh Kumar et. al., (2014), winter is suitable for Chlorophyceae, winter and summer is suitable for Bacillariophyceae, in summer Cyanophyceae is more abundant, Charophyceae doesn't shows seasonal variations. Euglenophyceae is show growth in winter seasons.

Table 1: Class Wise Percentage Contribution in Dokewada Reservoir of Beed

Sr. No	Name of Class	Genus	Species	Percentage Contribution
1	Chlorophyceae	27	63	42.66
2	Charophyceae	2	2	1.35
3	Bacillariophyceae	12	32	21.62
4	Euglenophyceae,	3	6	4.16
5	Cyanophyceae	16	45	30.42

Table 2: Seasonal Variation of Algal Taxa in Dokewada Reservoir of Beed

Name of Seasons	Chlorophyceae	Charophyceae	Bacillariophyceae	Euglenophyceae	Cyanophyceae
Monsoon	42	2	15	3	20
Winter	50	1	30	5	35
Summer	45	2	28	5	40

■ Chlorophyceae ■ Charophyceae ■ Bacillariophyceae ■ Euglenophyceae ■ Cyanophyceae

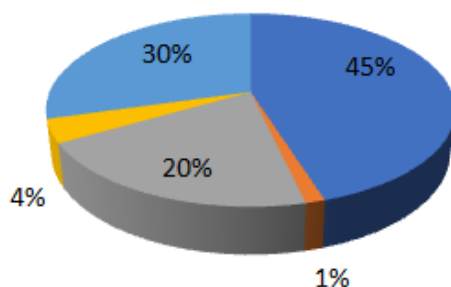


Figure 1: Class wise Percentage Contribution of Algae Flora of Dokewada Reservoir Beed.

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