



A PRELIMINARY SURVEY ON CYNOPHYCEAE POTENTIAL FROM AKKALPADA DAM OF DHULE [MAHARASHTRA]

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ABSTRACT:

The Present survey with relation to potential of Cyanophyceae class of algae carried out for Akkalpada Dam of Dhule district. The survey consist Blue green algal flora of different stations of Dam. It shows 15 genera and 34 species belonging to class. Cyanophyceae. The morphological types observed are trichomaceous, filamentous, falsely branched etc. Genera *Oscillatoria*, *Aphanocapsa* and *Merismopedia* were encountered by maximum number of species.

Keywords : Algae, B.G.A., Potential, Cyanophyceae

INTRODUCTION:

Taxonomic study of blue green algae from Akkalpada Dam is need to emphasizes mainly the relationship between algae and environment with respect to algal growth. The algae widely spread in aquatic environment and water plays an important role in their growth. Studies on Blue green algae of Dams of North Maharashtra region has been very much restricted with certain reports as, Ahmed and Krishnamurthy (1990) worked on hydrobiological studies of Wohar reservoir of Aurangabad (Maharashtra). More (1997) has made limnological observations of Panzara Dam and river with relation to algae. Pendase et. al. (2000) carried out hydrobiological study of percolation tank of village Dasane of Nashik district. Nandan and Mahajan (2002) made observation of periphyton in Hartala lake of Jalgaon district (Maharashtra). Nandan and Jain (2002) studied algae from Sonvad Dam of Dhule. They found population of Blue green and Green algae were greater than Diatoms and Euglenoids. Aher (2003) did limnological studies on Haranbari dam and Mosam river with reference to algae. He reported 161 algal taxa from Dam site and 198 taxa from river site. Jayabhaye et.al. (2007) did the study of phytoplankton diversity of Parola Dam, Hingoli. Wagh (2009) did the study of phycodiversity and water quality assessment of water reservoirs from Ahmadnagar district of Maharashtra state. Patil (2013) did limnology and biodiversity studies of algal flora of Sulwade Barrage of Dhule District. So it is important to study the Cyanophycean potential from Akkalpada Dam of Dhule.

MATERIALS AND METHODS :

The samples of dead and decaying substrates of Present study area situated in western khandesh in Dhule district of North Maharashtra.

Geographically it lies between 25°56'28" North Latitude and 74°27'22" East longitude. Algal samples were collected from study area at monthly interval for two years Algal samples were collect in plastic bottles containing 4% formalin for further investigation. Algal analysis made by qualitative analysis. With the help of standard monographs and related literatures algae were indentified.

RESULT & DISCUSSION :

In present investigation 15 genera and 34 species are recorded. The maximum population of Blue green algae was observed in July than April. There is seasonal change occurs in population of Blue green algae Blue green algae are never in abundance. In present study *Oscillatoria*, *Aphanocapsa*, *Merismopeida*, *Microcystis* and *Chroococcus* are dominant as compare to other. Maximum composition of Cyanophyceae was reported during monsoon period. Cyanophyceae represent with following potential as.

01. *Microcystis viridis* (A.Br.) Lemm.
02. *Microcystis aeuruginosa* Kuetz.
03. *Microcystis protocystis* Crow.
04. *Chroococcus montanus* Hansgira.
05. *Chroococcus minutus* Kuetz.
06. *Chroococcus minor* (Kuetz) Nag.
07. *Aphanocapsa biformis* A.Br.
08. *Aphanocapsa montage* Cramer.
09. *Aphanocapsa littoralis* Hansgira.
10. *Aphanocapsa pulchra* (Kuetz.) Rab.
11. *Gloeocapsa calcarea* Tilden.
12. *Synechococcus aqualis* Sau.
13. *Merismopedia tenuissmia* lemm.
14. *Merismopedia glauca* (Ehrenb) Nag.
15. *Merismopedia punctata* Meyen.
16. *Merismopedia tenuissima* Lemm.
17. *Myxosarcina spectabilis* Geitler.
18. *Myxosarcina burmensis* skuja.
19. *Oscillatoria Formosa* Borg ex. Gomont.
20. *Oscillatoria acuminata* Gomont.
21. *Oscillatoria omphibia* Ag. ex. Gomont.

22. *Oscillatoria chilkinsis* Biswas .
23. *Oscillatoria animalis* Ag. ex. Gomont.
24. *Oscillatoria limosa* Ag. ex. Gomont.
25. *Lynbya ceylanica* wille.
26. *Lynbya palmarum* (Mortens) Breb.
27. *Lynbya major* Menegh ex. Gomont.
28. *Lynbya majuscula* Harvey ex. Gomont.
29. *Scytonematopsis kashyapi* (Bhardwaja) Geilster.
30. *Scytonema montane* ex. Born et. Flah.
31. *Chlorococcus giganteus* West. W.
32. *Chlorococcus minor* (Kuetz.) Naegeli
33. *Stigonema minutum* (Ag.) Hassell
34. *Hapalosiphon welwitschii* w.et. G.S. West

Significance –

The Following significance can provide by present study

1. Such taxonomical study of B.G.A. is basically useful to taxonomist, ecologist and researchers of algae for obtaining information
2. As the water used for agriculture purpose, different types of cyanobacteria are helpful as bio fertilizer to agriculture field and this type of information will also helpful to farmers
3. Survey an cyanophycean potential is the first step in the efforts on comprehensive taxonomic survey.

This paper deals with the general account on the taxonomy and morphology of B.G.A. from Akkalpada Dam of Dhule (M.S.)

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