Science Park
Research Journal

ISSN: 2321-8045 Impact Factor : 2.1005(UIF) Volume - 3 | Issue - 32 | 18th Feb - 2016

ALGAL DIVERSITY IN CHANDNI DAM, PARANDA, DIST. OSMANABAD (M.S.) INDIA 413601

S. L. KOREKAR
Yeshawantrao Chavan Mahavidyalaya, Tuljapur. Dist. Osmanabad , Maharashtra.

ABSTRACT:

The present communication deals with the study of algal diversity in Chandni Dam, Paranda Dist. Osmanabad. (M.S) India Chandani dam, is an earth fill dam on Chandani river near Paranda, Osmanabad district in the state of Maharashtra in India. The height of the dam above lowest foundation is 17.18 m (56.4 ft) while the length is 1,920 m (6,300 ft). The volume contens is 289 km3 (69 cu mi) and gross storage capacity is 20,700.00 km3 (4,966.19 cu mi).The work was carried out during year 2016 (January to December) where the light is available and the Algal occurred. The chlorophyceae represents with 10 species, Cyanophyceae with 07 species, Bacillariophyceae with 06 and Euglenophyceae with 02 species.

KEYWORDS: *Algal diversity , Chandni dam, Plankton.*

INTRODUCTION:

The plankton includes micro-organisms which float on water surface and depth at mercy of water currents. The algae which forms Ist tropic level and animal origin are in IInd tropic level. Many animals like most zooplanktons grazing upon algae. Energy level of aquatic system and their significance in establishing their status is well known. Algae are ecologically significant as they almost capture radiant energy of sunlight and convert into chemical energy. They are also biological indicator of water quality in pollution studies. To summarize, plankton due to their addition of any cycling of energy and matter in ecosystem evaluation of population in terms of their special diversity, biomass and temporal distribution population , turnover, periodicity and productivity is vital in management of ecosystem.

The diversity of algal in water body determines stocking rate of fishes as they are chief source of food of many economical important fishes. Algae, due to its key role in ecosystem of environment are directly related to fish catch capacity of reservoir. An insight into succession, composition and distribution of Algal gives valuable source for determining fishing ground, the species which is suitable

for stocking and determining level of utilization of available food by existing fish stock.

MATERIAL AND MATHODS:

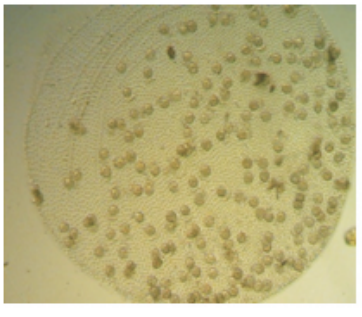
The present investigation for algal studies was carried out form January 2016 to December 2016 on Chandni Dam Paranda,Osmanabad District. To study the algal biodiversity five sites were selected for the collection of algal samples. Algal samples were collected at monthly intervals in acid washed collection bottles. After collection, algal samples were brought immediately in the Laboratory. It is found that samples have many debris with macro and microphytes They washed washed with formalin water. The fresh as well as preserved algal forms were observed under microscope, Cladophora,e and indentified with the help of standard literature on algae by Agarwal (1999), Jonapi (1980), and by Prescott,(1951) and Philipose (1967) as basic references.

RESULTS AND DISCUSSION:

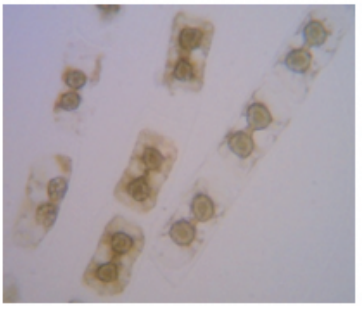
Algal diversity in chandani project includes 10 genera of *chlorophyceae including Chlamydomonas* and *Chlorella,Cosmarium, Chlamydomonas, Eudorina, Volvox,* and *Ulothrix* sp are dominated, 7 species of cyanophyceae were identified *Microsystis* sp, , Lynglya sp are dominated out of 7 species recorded, 5 species exhibited their presence during January 2016 to December 2016., 06 species from Bacillariophyceae were identified, *Navicula, Synedra sp and Cyclotgella* sp, are common. Euglenophyceae was represented by 2 species with dominance of Euglena sp. This group attained a highest peak in November month.

ACKNOWLEDGEMENT:

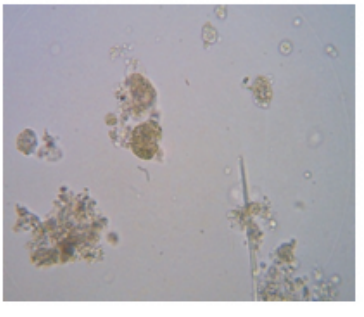
The authors are thankful to The UGC, WRO, Pune for providing financial assistance under minor research project scheme.



1. Volvox Species

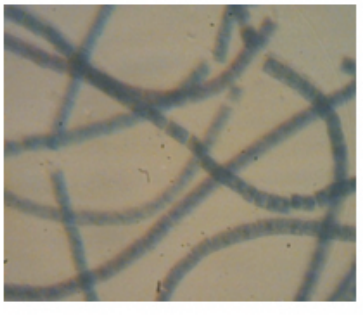


2. Zygnema Species

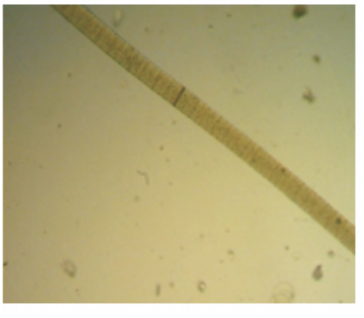


3. Chlorella Species

4. Rivularia Species



5. Oscillotoria Species



6. Spirogyra Species

REFERANCES:

• Anand, N. 1980 Preliminary studies on the revision of the genus Anabaena Bory. In: Taxonomy of Algae (Ed.) T.V.Desikachary, University of Madras, Madras, 109- 112.

• Gonzalves, E.A. and D.B. Joshi, 1943 The algal flora of temporary waters around Bombay-I, An ecological study of the algae in some rain water pools at Borivilli. J. Univ. Bombay 11 (3): 34-45.

• Jena,M and S.P Adhikary2007. Chlorococcales (Chlorophyceae) of Eastern and North-eastern States of India. Algae 22 (3): 167-183

• Mahdawi M.M.and H.Ali 2014. Fifteen new records for freshwater algae of Iraq. Jour. of Int. Sci. Pub.: Ecology and Safety, 8: 574-582

• Narkhede, P.N. 2006. Genus Nitzschia and Surirella from Hatnur dam, Jalgaon district. Maharashtra. J. Aqua. Biol. 21 (2): 19-22.

• Philipose, M.T. 1967. Chlorococcales, Indian Council of Agricultural Research, New Delhi.

• Pingle, S.D. 2005. Algae of Pashan lakeThe Oedogoniales, In"Proc Natl.Conf. in Plant Sci.," P.V.P.College, Pravaranagar, pp.11-15.

• Prasad, B.N. and Misra P.K. 1992.Fresh water algal flora of Andman and Nicobar Islands, Vol. II, Bishen Singh Mahendra Pal Singh, Dehra Dun.

• Prakash B. Jadhavar and P.B. Papdiwal 2011 Macro Algae at Nathsagar Reservoir, Paithan (M.S.) India, Dn. Curr.Sci 6:384-386

• Prakash B. Jadhavar and P.B. Papdiwal 2012 Some Desmids from Nathsagar water reservoir, Paithan-Maharashtra. J. Indian bot. Soc. 91(4): 317- 321

• Prakash B. Jadhavar & P. B. Papdiwal 2013 Cyanophycean Algae at Nathsagar Water Reservoir, Paithan – Maharashtra, Applied Research and Development Institute Journal 8(3) 17-23

• Rath, J.and Adhikary S.P.2005. Algal flora of Chilika Lake, Daya Publishing House, Delhi

• Satpati, G.G.N.Barman, and R.Pal 2013. A study on green algal flora of Indian

• Sarode, P.Tand Kamat,N.D.1984 .Freshwater Diatoms of Maharashtra. Saikripa Prakashan, Aurangabad. p.338.

• Shukla, S.K., C.P. Shukla,and P.K. Misra, 2008. Desmids (Chlorophyceae, Conjugales, Desmidiaceae) from Foothills of Western Himalaya, India, Algae 23(1): 1-14

• Thakur, H.A.and K.H. Behere 2008. Study of filamentous algal biodiversity at Gangapur dam Nasik District (M.S.),India. In: "Proceedings of Taal 2007: The 12th World Lake Conference" (Eds. Sengupta, M. and R. Dalwani) Jaipur. pp. 456-461.s