

Seasonal Variation of Physicochemical Parameters in Perennial Tank of Atpadi, Maharashtra

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Abstract: Studies on physico-chemical parameters of the perennial tank of Atpadi, Sangli district, (Maharashtra), were carried out during February 2018 to January 2020. The physico-chemical parameters varied seasonally. The sacchi disc values varied from 21 cm to 38 cm. The minimum transparency was recorded in the month of August- September in monsoon and maximum in summer in May. The turbidity ranged between 2 to 32 NTU and was maximum in rainy season while minimum in the summer. The suspended solids ranged between 24 mg/L to 60 mg/l. The TDS value fluctuated between 218 mg/l to 388 mg/l. The electrical conductivity ranges between 400 μ mho/cm to 530 μ mho/cm. it was found maximum in summer and minimum in winter. The pH value ranged between 8.3 to 8.475 The dissolved oxygen varied from 5.3 mg/l to 9.8 mg/l. The alkalinity ranged between 109 to 198 mg/l. The total hardness was found to be moderate throughout the period of investigation and ranged between 117 mg/l to 167 mg/l. The BOD ranged between 1.6 mg/l in December to 14 mg/l in July. The COD ranged between 4 mg/l to 55 mg/l.

Keywords: Season, Variations, Physico-Chemical Parameters, Atpadi, etc.

REFERENCES

- [1] Ahemad Masood and R Krishnamrthy 1990 Hydrobiological studies of Wohr reservoir Aurangabad (Maharashtra State) India. J.Environ. Biol.11(3):335-343
- [2] APHA-AWWA-WPCF 1985 Standard methods for the examination of water and waste water. 20th edition. APHA Washington D.C.
- [3] Bhosale L J, Sabale A B and Mulik NG 1994 Survey and status report on some wetlands of Maharashtra. Final report submitted to Shivaji University Kolhapur.
- [4] Farrell T P Finiarson C M and Griffiths DJ 1979 Studies on the hydro biology of tropical lake in northwestern Queensland I. Seasonal changes in chemical characteristics Australian J.Marine freshwater Res.30: 379- 595.
- [5] Gaur RK, Khan AA and Alam A 1995 oxygen system dynamics of the pond harbouring a permanent bloom of cyanobacterium *Microcystis aeruginosa*. J.Ecotoxicol. Environ.Monit. 5(1):71-76.
- [6] Gaur Rajeevkumar and Khan Asif A 1995 Physico-chemical characteristics of a eutrophic lentic environment with a permanent bloom of cyanobacterium *Microcystis aeruginosa*. Ecobiol, (4): 263-267.
- [7] Goel PK, Kulkarni AY and Khatavkar SD, 1988. Species diversity in phytoplankton communities in a few fresh water bodies in South Western Maharashtra. Geobios 15: 150-156.
- [8] Harshey DK, Srivastava AK and Patil SG, 1988, Studies on the ecology of freshwater ostracoda part II population Ecology in Bala Sagar tank Jabalpur MP, India. J. Curr. Biosci, (4): 127-134.
- [9] Kamat MD 1965 Ecological notes on Kolhapur. J.Biol. Sci. 8 :47-54.
- [10] Kant Shashi and Raina Anil 1990, Limnological studies of two ponds in Jammu II. Physico-chemical parameters. J.Environ.Biol. 11-(2):137-142.
- [11] Kataria HC, Iqbal SA and Shandilya AK 1995, limno-chemical studies of Tawa reservoir. Indian J. Environ. Protection. 16(11): 841-846.
- [12] Sathe SS, khabade Suresh and Hujare Milind 2001. Hydrobiological studies on the two man-made reservoirs from Tasgaon Tahsil (Maharashtra) India.
- [13] Singh VP 1960, Phytoplankton ecology of the inland water of Uttar Pradesh. Proc. Sym. Algalogy ICAR New Delhi. P: 243-271.



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- [14] Trivedi RK, Goel PK and Trishal CL, 1998 Practical methods in Ecology and environmental Sciences environmedia publications Karad.
- [15] Welch PS 1952 limnology, 2nd Ed. McGraw-Hill book co. N Y