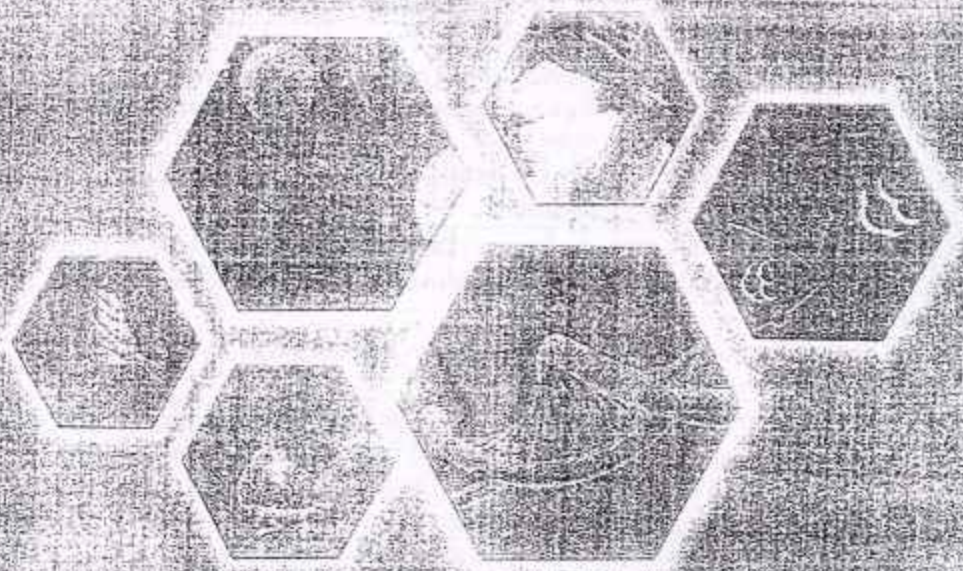


2017-2018 Dr. Jadhav R.R.

Recent Trends in Life Sciences for Sustainable Development

23rd December 2017

Dr. Jadhav R.R.



Dr. Jadhav R.R.

[Handwritten signature]

84	Prevalence of helminthosporium spores Over sunflower fields, By G.M.Pathare ¹ , I.G.Sayyed ²	163
81	Study Of Monthly Variations In D.O. B.O.D. and C.O.D. Parameters of Dalimb Dam, Dalimb Dist. Osmanabad, By Jadhav R. R.	166
88	Induction Of Callus Culture By Using Plant Growth Regulators (Pgr ^s) On Important Medicinal Plant <i>Abrus Precatorius</i> (L.), By Shrikant B. Bhosale and D. S. Jadhav	169
94	In Vitro Rhizogenesis Of <i>Solanum Virginianum</i> L., By Rohit U. Shete and Narayan B. Pandhure	173
97	In Vitro Regeneration Of Medicinal Plant <i>Ricinus Communis</i> L., By Rupali G. Dhokrat and Dr. N. B. Pandhure	178
101	Non Linear Optical Crystal For Antireflection Coating In Solar Thermal Devices, By Rupali B. Kulkarni ^a , Shimpley N. Joshi ^b , Deepa R. Deshpande ^c	182
105	Induced Chlorophyll Mutations In Pigeon Pea [<i>Cajanuscajan</i> (L.) MILLSP.], By Sangle S. M., Lad J.S., Mahamune S. E. * and Kothekar V. S. **	186
111	To Study The Effect Of Phosphorus Sources On Cellulose Enzyme By <i>Alternaria Alternata</i> On Brinjal, By Anarse P.S. & Sayyad I.G.	189
116	Analysis Of Beta-Carotene In Fruits and Vegetables By Column Chromatography, By Shimple Laxman and Pandhure Narayan	192
118	Plant Growth Promoting Microorganisms (PGPM) : A Critical Review, By Shinde S.Y. and Deshmukh P.D.	196
121	Impact of Water Quality On Fish In Fresh Water, By Shital S Samate & Shivaji G Jeithor	201
125	Assessment Of Physicochemical Parameters Ofsina Kolegoan Dam Osmanabad District MS., By Swati Jadhav ¹ , Atul Humbe ² and Nitin Padwal ³	205
129	Diatoms Form Weast Water In Beed City Of Maharashtra, By Santosh M.Talekar	211
135	The Importance Of Biodiversity To Human Health, By Vidya D. Gulbhile	213
143	Present Scenario Of Draught Animal Power Utilization In Aurangabad District of Maharashtra, By R.U. Wagh*, R.A. Patil, B.M. Thombre and P.V. Padghan	216
148	Root Cultures Of <i>Taverniera Cuneifolia</i> As Sustainable Source of Medicinally Important Compounds, By Vithal Awad, Abhay Harsulkar	224
153	Studies On Physio-Chemical Analysis of Waste Water From Beed City., By Devgude R.N. and Talekar S.M.	227
159		

STUDY OF MONTHLY VARIATIONS IN D.O. B.O.D. AND C.O.D. PARAMETERS OF DALIMB DAM, DALIMB DIST. OSMANABAD

JADHAV R. R.
SHIVNERI COLLEGE SHIRUR A, DIST LATUR

ABSTRACT

In the present investigation the study was conducted to determine the monthly variation in dissolved oxygen, biological oxygen demand and chemical oxygen demand parameters of Dalimb dam water at three sampling stations namely station A (Center of Dam), station B (Near filtration plant) and station C (opposite station A) during January to December 2011. The maximum DO values were recorded in winter and minimum in summer, similarly the biological oxygen demand and chemical oxygen demand values were observed more during monsoon than winter and summer. Key words :-Dalimb dam, Dissolved Oxygen, Biological Oxygen demand, chemical oxygen demand.

INTRODUCTION

Water quality of any water body is measured in terms of parameters like Dissolved Oxygen, Biological Oxygen demand and chemical Oxygen demand. Dissolved Oxygen is an important parameter which can be used as an index of water quality, primary production and pollution. Biological resistant substances in water. Higher values of chemical oxygen demand indicate higher microbial activity similar findings were reported by K. Durgapal (1993)

MATERIALS AND METHODS

Sampling sites : Three sampling sites namely station 'A' (Center of Dam), station B (Near filtration plant) and station C (opposite station A) were selected and samples were collected at an interval of one month for 1 year, i.e. January to December 2011. Dalimb dam receives polluted water from various sources.

Sample Analysis : Water samples were analyzed with the help of Winkler's method in the laboratory for dissolved oxygen and biological oxygen demand, similarly chemical oxygen demand was measured by using Dichromate digestion method. Samples were collected in dark bottles, incubated at 20°C for five days.

RESULT AND DISCUSSION

Dissolved Oxygen (DO) : In the present investigation the dissolved oxygen ranged from 4.0-8.8 mg/lit maximum dissolved oxygen was noted in winter and minimum was recorded in summer months. Similar findings were observed by Mishra and Yadav (1978), Adebisi (1981) and Mitra (1982).

BIOLOGICAL OXYGEN DEMAND (BOD)

Biological oxygen demand is an indicator parameter which indicates the amount of biological matter in the water and express degree of contamination. In the present investigation the range of biological oxygen demand was 4.5-25.7 mg/lit. Higher oxygen demand values were found more during monsoon and low in winter. Similar trends were also observed by Patki et.al (1990) and Patki (2002).

CHEMICAL OXYGEN DEMAND (COD)

Chemical oxygen demand test determines the oxygen required for chemical oxidation of organic matter with the help of strong chemical oxidant, in the present study the values ranged for 5.4-55.8 mg/lit during the year 2011 (January to December) maximum values of (COD were noted in monsoon may be due to inflow of organic dead matter and minimum values are found in winter may be due to settlement and flocculation effect, kudesi et al (1986) also observed similar trends.

Table No.1 Monthly mean value of dissolved oxygen (mg/lit) of water samples at various sampling stations during the monitoring period Jan to Dec. 2011.

Sr.	Month	Station A	Station B	Station C
1.	January	7.8	6.9	5.7
2.	February	7.1	5.9	5.9
3.	March	7.9	6.8	6.4
4.	April	5.4	5.2	4.6
5.	May	5.2	5.1	4.6
6.	June	5.1	5	4.8
7.	July	6.5	5.6	5.2
8.	August	7.2	6.6	5.8
9.	September	7.8	7.7	5.7
10.	October	8.5	8	7.8
11.	November	8.2	8.1	7.7
12.	December	8.7	8.4	8.2

Table - 2 : monthly mean value of Biological oxygen Demand (mg/lit.) of water at various sampling stations during the monitoring period Jan to Dec.2011

Sr.	Month	Station A	Station B	Station C
1.	January	4.5	6	9.8
2.	February	5.9	6.4	13.4
3.	March	6.8	7.2	15.8
4.	April	5.1	7	13.8
5.	May	5.2	7.7	13.5
6.	June	8.4	8.9	23.2
7.	July	11.7	13.4	25.7
8.	August	12.4	13.2	23.8
9.	September	9.2	11.6	17.6
10.	October	4.8	10.4	13.4
11.	November	4.6	9.4	11.2
12.	December	4.8	8.8	10.3

Table - 3 : Monthly mean value of chemical oxygen Demand (mg/lit) of water sample at various sampling stations during monitoring period Jan.2011 to Dec.2011

Sr.	Month	Station A	Station B	Station C
1.	January	5.4	11.4	21.2
2.	February	10.2	17.7	29.7
3.	March	11	21	31.9
4.	April	10.7	19.8	36.8
5.	May	12.7	25.8	40.9
6.	June	15.9	29.7	53.4
7.	July	25.7	33.4	55.8
8.	August	21.2	31.1	53.2
9.	September	11.4	30.7	50.4
10.	October	8.2	21.2	31.2
11.	November	7.8	15.8	30.8
12.	December	6.7	11.7	21.9

CONCLUSION

The present study concludes that the Dalimb-Dam water was not polluted, all result within permissible limits when compared with WHO. The water of the dam is good for drinking after normal processing. Similarly the water can also be used for purpose of irrigation as well as for aquaculture.

REFERENCE

- Adebisi A.A. 1981. The physico-chemical hydrology of a tropical seasonal river upper of river Niger hydrobiologia 79 (2), 157-165
- Hancock, F.D. 1973 Algal ecology of a stream polluted through gold mining in winter water strand Hydrobiol. 43: 189-229.
- Khulbe, R.D. and Durgapool, A. 1993 Evaluation of drinking water quality at Bhimatal, National uttar Pradesh. Poll.Rs 5.21 c2j: 109-111.
- Kudesi a. V.P. and Verma S.P. 1986 Physico-Chemical studies on industrial pollution of kalinandi due combined effluents of cansugar, chemical industry, distillery and rubber industries its merrut region. Indian J.Env.Agric 1(1): 1-11.
- Mishra, G.P. and Yadav, A.K. 1978, A comparative study of physico-chemical characteristics of river and lake water in central India. Hydrobiologia, 59(30): 275-278.
- Mitra A.K. 1982 Chemical characteristics of surface water at a selected going station in river Godavari, Krishna and Tungabhadra Ind. J. Environ, Health, 24 (2): 165- 179.
- PatkiSaroj2002, Hydrobiological studies of Bansheki dam at Udgir, Ph.D. thesis submitted to Dr. BabasahebAmbedkarMarathiwad University.
- SinghaiS.Ramani, M.A. and Gupta U.S. 1990 seasonal variations and relationship of different physico-chemical characteristics in the newly made towa reservoir. Limnologic Berlin) 2(1): 293-301.

21

THE HISTORY OF THE UNITED STATES

The history of the United States is a long and varied one, beginning with the first settlers in the early 17th century. The country grew from a small colony to a vast nation, facing many challenges along the way. The American Revolution was a turning point, leading to the birth of a new nation. The Civil War was another major event, shaping the country's future. The United States has since become a world power, with a rich cultural heritage and a strong economy.

The early years of the United States were marked by exploration and settlement. The Pilgrims and Puritans sought a better life in the New World. The French and Indian War was a significant conflict that shaped the nation's borders. The American Revolution was a struggle for independence from British rule. The Constitution was drafted to provide a framework for the new government. The Civil War was a conflict over slavery and states' rights. The Reconstruction era followed, leading to the passage of the Civil Rights Act. The United States has since become a world power, with a rich cultural heritage and a strong economy.

The United States has a long and varied history, with many important events and figures. The country has grown from a small colony to a vast nation, facing many challenges along the way. The American Revolution was a turning point, leading to the birth of a new nation. The Civil War was another major event, shaping the country's future. The United States has since become a world power, with a rich cultural heritage and a strong economy.