

ONE DAY INTERDISCIPLINARY INTERNATIONAL CONFERENCE ON
MAINSTREAMING THE MARGINALIZED:

Perspectives in Humanities, Commerce and Science

Jointly Organized by
LOKNETE GOPINATHJI MUNDE ARTS, COMMERCE AND SCIENCE COLLEGE
Mandangad, Dist. Ratnagiri- 415 203.(M.S.)
(Affiliated to University of Mumbai)

And
M.G.E.W Society's
CENTRE FOR HUMANITIES & CULTURAL STUDIES
Kalyan (W), Dist. Thane - 421 301.(M.S.)



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This is to certify that *Dr / Mr / Ms* _____

Dr. H. K. JADHAV

_____ **A.S.C.College,Naldurg Dist. Osmanabad.**

*participated in one day Interdisciplinary International Conference on Mainstreaming the Marginalized:
Perspectives in Humanities, Commerce and Science held on 28 January 2017 at Loknete Gopinathji Munde Arts,
Commerce and Science College, Mandangad.*

*He/ She delivered a plenary lecture / chaired a session / presented a paper entitled _____
Survey Of Bioconatamination Of Junvani Water Tank Babhalgaon _____ at the conference.*

Dr Vijay Kulkarni
Principal

Dr Waghmare Shamrao
Convener

Dr Kalyan Gangarde
Organizing Secretary





The Proceedings of International Conference

on

Mainstreaming the Marginalized: Perspectives in Humanities, Commerce and Science

On

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survey of Biocontamination of Junvani water tank Babhalgaon,

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Introduction:

Pure water is a basic needs of Life. Day by day ,pure is a problem of world it is polluted by various ways .i.e chemical and biological ways.

Bio-contamination of the water were studied throughtout the world ,some worker like kulshreshtra et.al. 1992 ,Thomas and azziz ,M.S .Kodarkar ,1998 Goel and Trivedy 1984 worked out this problem Howevre no such work was recorded on Junvani water tank in Osmanabad District of Maharashtra .Therefore the present under taken to study th bio-contamination of Junvani tank.

Study Area:

Location of the Junvani tank is its longitude 18.5842° N and latitude 76.0218 ° E it is earthen dam having maximum height 11.99 meter ,catchment area 12.69 hector.this water tank were constructed for irrigation ,agriculture and drinking purpose.

Material and Methods:

Monthly sample were collected from the four sampling stations during the year 2014 june to May surface water sample were collected directly in two liter capacity container.

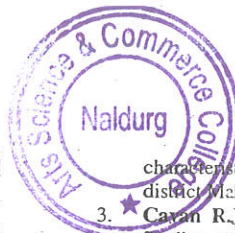
The analyses of water tempucture .Air tempuctor .Dissolved .Oxygen was measured site for other parameter, sample brought to .Laboratory and analyzed for bacteriological analysis .pH was measured with the help of field pH .meter hanno model champ.The methods were used for the analysis of various physico-chemical parameter are as given in methodology for water analysis (Trivedy and goel 1984,APHA 1980,and Kodarkar et.al.1998)

Result and Discussion:

Temperature :

1. A) **Air.Temperature** of air ranged between 23.0°C in the month of January. and 40.2°C maximum in the month of may
2. B). **Water .The water temperature** varies between 19.9 to 38.8°C.The Minimum temperature was recoeded in momth of january and maximum was recored in the month of may
3. Water temperature exhibited positive correlation ,Helminth eggs, Protozoa, Rotiferes and Arthropod whereas negative correlation with dissolved oxygen pH ,free co₂ and Alkalinity .

4. **pH** the ph of water differs from 7.3 to 8.1 the ph of the Aloor tank water was less alkalinity throughout the year the minimum pH was 7.3 recorded in the month of may and .maximum 8.1 recorded of December.
5. The pH values shows positive correlation with Dissolved Oxygen.CO₂ Alkalinity and negative correlation with Helminth -eggs, protozoa,temp.Rotifrs and Artopods.
6. **free Co₂** the value of free Co₂ ranging between 8 mg to 12 mg/lit. The seasonal variation in the value of free Co₂ were also observed free Co₂ exhibited negative correlation with D.O, Alkalinity ,Helminth eggs ,Protozoa and where as positive correlation with pH .
7. **Alklinity** .The water of the tank was moderately alkalinity throughout the year.ranged between 51to 114mg/lit. also. total alkalinity showed negative correlation with temperature ,protozoa eggs rotifera ,free Co₂ wheres positive correlation with pH ,Helminth eggs ,Dissolved oxygen and Arthropod.
8. **Dissolved Oxygen** .The value of dissolved Oxygen rangen between 6.30 and 9.50mg/lit seasonal variation in the value of dissolved oxygen were observed D.O. value is higher in rainy and Lower value in summer . dissolved oxygen exhibited negative correlation with water temp. Helminth eggs ,Protozoa, Rotifer and Arthropod where positive correlation with pH free Co₂ D.O ,pH and Alkalinity .
9. **Protozoa:-**The Protozoa was represented by cysts of balantidium coli and cysts of entrobishistolytica the total population was highest in 11/lit. in the month of May and lowest in the 6/lit. the month of November Protozoa of coli form exhibited positive . Rotifera and arthropod whereas negative correlation with free Co₂, D.O. pH and Alkalinity.
10. **Helminth eggs :-**
The helminthan eggs identified belongs to ascribeslubricodes,enterobius,vermiculars,fasciola, hepatica,tricharis, trichure the helminth eggs found maximum per/lit in the month of September eggs of aserishumbricodes were most prevalent being found particulary in all matheds followed by trichuristrichure observed form 10 months fasciola, helpatica and Hymenlepis and Helminth observed 9 month enterribivsvermicalarisobeseved for 8 months
11. Helminth eggs exhibited negative correlation with PH. D.O. free Co₂ where as positive correlation with water temp alkalinity Protozoa Rotifera and arthropod.



12. **Rotifera** :- Rotifera were respected by (4) genus and (4) species (1) Brachinu- angularis, (2) Epiphanyes- Clavulata (3) Keratella- Procurca (2) lecan-bulla (4) Filinia- opoliensis in the summer season Rotifera population was maximum where as during the winter season minimum the highest density of Rotifera is 65 per lit. in the month of may and lowest density of 25/lit. in the months December. Rotifera exhibited oxygen alkalinity free CO₂ where is positive correlation with temp. protozoa Helminth eggs and arthropod.
13. **Arthropoda** :- in arthropod aeyclops daphimia and nauplius were observed the arthropoda population was higher 50/lit in the months of may and lower 16/lit. in the month of November arthropod population was dominated by Nauplius. Arthropods exhibited positive correlation with temp. alkalinity Protozoa . Helminths eggs and negative correlation with free CO₂ DO and PH.

Table no.1: Physic-chemical and biological profile of Junvani water Tank

Sr.no.	Parameter	Range
1	Temp. a. Air b. Water	23 ^o to 40.2 ^o 19.9 ^o to 38.8 ^o
2	pH	7.3 to 8.1
3	Free Co ₂	8 to 12mg/lit
4	Alkalinity	51 to 114 mg/lit
5	D.O.	6.8 to 9.50mg/lit
6	Protozoa	6 to 11/lit.
7	Helminthes eggs	11 to 25/lit.
8	Rotifer	25 to 65/lit.
9	Arthropod	16 to 50/lit.

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