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M.Sc (Maths), M.B.A. (Mktg.), M.B.A. (H.R.),
M.Drama (Acting), M.Drama (Prod. & Dir.), M.Ed.

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Ajanta Prakashan

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14. Temperature and pH Content in Water of Babhalgaon Dam of Tuljapur Taluka District Osmanabad MS India

V. G. Mane

Jawahar Arts Science and Commerce College Andur Taluka Tuljapur, Dist. Osmanabad.

G. T. Rathod

Jawahar Arts Science and Commerce College Andur Taluka Tuljapur, Dist. Osmanabad.

D. N. Gatlwar

Jawahar Arts Science and Commerce College Andur Taluka Tuljapur, Dist. Osmanabad.

B. J. Ugale

Shrikrashna Mahavidyalya Gunjoti, Tal. Omerga, Dist. Osmanabad.

Abstract

The present investigation deals with the study of temperature and pH content in water of Babhalgaon dam, Tuljapur Taluka district Osmanabad. The study of temperature and pH maintained during June 2017 to May 2018. Babhalgaon Dham is 31 km away from Solapur city, its water is used for irrigation of agriculture, domestic activities like drinking, cloth washing and fish culture purpose. Monthly study of temperature and PH in water of the two spot A and B were selected the temperature was recorded with help of the centigrade thermometer, pH estimated by using pen pH meter and calculated the detail of result is special in the next.

Keyword – Temperature, pH Babhalgaon dam

Introduction

The origin of water on the earth is not clear so far however the current presumption is that the premordial earth had no ocean and perhaps very little atmosphere the remarkable combination of hydrogen and oxygen is called water water is not only essential to life but the is the predominant inorganic constituent of living matter forming in general nearly three quarters of the weight of living cell human uses water in the home industry, in agriculture and Recreation in one way or other will use all available sources inland water groundwater and even ocean water. availability of water on the earth is only 1% and 2% water occurs always in frozen state while 97% water is the seawater is an important resource and basic need of human being. water is an essential and most abundant inorganic biomolecule in protoplasm of living organism. it might be said that all life is aquatic read recognition of health benefits associated with the good and

abundant domestic water supply can be Inferentially raised to Egyptians the Romans and the greeks of one thousand BC and earlier water which is present in ponds Reservoir lakes or dam Ocean for the considerable period is called stored water the microbes population increases greatly in such water.

The temperature of the water body was measured at sampling site by centigrade thermometer of 0 °C to 50 °C range and 0.2 °C. least count. the temperature is most important the productivity of water body depends upon all organisms. all metabolic and physiological activity and life process such as feeding reproduction graham and etal (1982) have shown that the water temperature regulate the role of photosynthesis in aquatic ecosystem nikasky (1963), Jayaram (1994) fishes more dependent on the temperature of surrounding water. Jhingram (1982) maximum and minimum water temperature of water body is essential for selecting suitable species of fishes for culture.

pH is a term used University to express the intensity of acidic or alkaline conditions of solutions. it is a means of hydrogen ion concentration or more precisely the hydrogen the ion Activity. the normal acidity and alkalinity dependence excess of H or OH ion over the other and measures in normality and gram equivalent of acid or alkali. pH scale range from 0 to 14 with 7 as a neutral below 7 being acidic and above 7 as alkine . the pH is also an important factors which maintains carbonate and carbonates system for fresh water. pH is the factor which can be used for detection of pollution legler (1967).

Materials and Methods

The Babhalgaon dam water sample selected for physical parameter is belonging to agriculture, drinking, fish culture sectors leading to water pollution consequently drinking purpose and harmful to health of human being as well water sample analysis temperature and PH in morning hours. the method used for analysis of temperature and pH physical parameters are given in methodology for water analysis Kodarar (2006) and salodia (1996).

Result and Discussion

Table No 1 temperature and pH content in Babalgaon dam during year June 2017 to May 2018

Month	Spot A		Spot B	
	Water Temp in °C	PH	Water Temp in °C	PH
June	31.1	7.8	30.4	8
July	30	7.9	30.1	7.8
August	29.2	7.6	29.3	7.8
September	28.1	7.4	28.1	7.6

October	29.5	7.1	29.4	7.4
November	27.2	7.4	27.2	7.3
December	25.	7.2	25.4	7.4
January	24.2	7.4	24.3	7.5
February	24.5	7.5	25.5	7.4
March	26.7	8	26.6	7.9
April	30.2	8.2	30.8	8.2
May	34.5	8.7	34.2	8.7

The water temperature were found to be in the range between 24.2 °C to 34.3 °C at the spot A 24.2 °C and spot B is 24.3 °C minimum in the month of January and the maximum water temperature at spot A is 34.3 °C and spot B 34.2 °C in month of May. In the present investigation the season wise analysis shown that the average water temperature in Baghalgaon Dam was maximum during summer season and minimum in during winter season and moderate the rainy season. Bode (2008), Kumbhar (2006) according to Mostly (1983) the variation in water temperature at different time were probably due to surface heating during the day and cooling during night the variation in water temperature may be different.

pH from Babhalgaon dam water range between 7.1 to 8.7 at the spot A 7.1 to 8.7 and at spot B 7.3 to 8.7. The pH maximum were recorded in May month and minimum in October and November month and with slide moderate in the rainy season. pH range was recorded by Kumbhar (2006), Gaikwad et al. (2008) pH is an index for suitable of environment and is one of the most important factors affecting the productivity of the water body. Kumar and Gupta (2002) pH range of 6 to 9 is most suitable for fish culture

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