Dynamics of chlorophyceae in phytoplankton of Lake Muchhi Pandharkwada Maharashtra

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Abstract
Phytoplankton study was carried out in muchhi lake from Jan 2013 to Feb 2012 chlorophyceal was the found in abundance from in mucchi lake 60% of phytoplane i.e. clorophyceal found in total amounts of phytopolankton desity. The class was represens 10 genera and choloroco ceals was the dominant carder cholorphy cease presentage and chlorophy leaf alage was observed in the month of Feburary 2013 in camparisum with total presentage of phytoplanteses cholorphy leafe in month of March 2013. Pediastrum 5 pp was observed to be consisten and dominant genera in comprism chlorophyceare. It has high percentage of Temperature, light preneration dissoloved oxygen and total alkasinity sendede much 5 pp and cconsamrioum 5pp are also occure in mucchi lake.

Keywords: Muchhi Lake, Phytoplanktons, Chlorophyces, Pediastsumer

1. Introduction
Phytoplanktons is present in, ost of the lake food web and fish production is depend on the the phytoplantons. (Ryder ex. At. 1974) on the basis of water body. Phytoplankton study was carried out un mucchi lake. In activities like washing vegetable boating, commercial fisher. Study of carried out the Samples were collected from Jan 2013 to Feb 2014 water sample are study by analyzed monthly for important physic chemical properties APHA (1981) from study of phytoplankton's 500 ml water samples were collected in plastic container and for immediate fixation lugl's iodine solution was used in field and water 4^0 formaldehyde was used for long term preservation. The study of phytoplankton's and identification of key (firtsch, 1979; Bellinger, 1992). For quantities estimation counting was carried out by studying haemeocytometer method (Trivedi and goel 1984) Study of phytoplanktons and physic chemical parameter was correlated to study the density.

2. Result & Discussion
The density of phytoplankton in mucchi lake was carried out phytoplannktons density of mucchi lake varied from 1600 x 10^3 to 30,360 x 10^3 UIL cholorphoyceaem cynophyceae Bacilariophyceae, xanthomphyleae, Bughelnophyceoe and dirophycead member twenty difference genera werew recorded. Cholophyceae was occure in abundant form rather than other phytoplanktons. It is about 60 ^{0}10 in total phytoplankton density other member of clase coro represented by 4 carderds chlorococcules, Vol vocales utotricaes, most of the species or chlorophyceae was observed in the month of Feburary 2013 (20.240 x 10^3 UIL). But imimtely there is a great change in density. But immeitely there is a greatchange in density of chlorophyton phytoplankton i.e. it suddenly lower down in next month i.e. march Zygenmatales. Predominanace of chlorophyea has also been reported by and chaudhory *et al*. (2001) pediasrum spp. Scendedsmus spp, chlorella spp, actinastrum spp & jurcguberukka soo, vikvix spp ultorix spp closterium spp and cosmarium sppp from sample selected phytoplankton spp were recorded during preset investigation large number of lanery were observed was cholorophycear (lewis 1979). According to this observation suitable for the environment of mucchi lake and therefore chlorophy league observed dominant representation of maximum number of genra observed among different order of chlorophycea. Chlorococcales was the main feature occure in dominant form. Palmer (1969) opined that continuous occurance of choloccalesis is indicate the eutrophic nature of water body. Pedsitrum spp was occure consistent and dominant in chlorococcales higher density 50% of total phytophankton density.

2.1 Pediastrum spp: Pedi strum spp occure in large quantity in the month Feburary (2013 20,000x 10^3 uil) while another large amount and pediastrum occure in the month of monsoon, July 1999 (15.000 x 10^3 left) (Dehadray, 1982), Aarey pond (Bist, 1987) and powai lake (slaskar, 1996), sendesmus spp with average density of 600.20 x 10^3 uil occure in second position of phytophamktons with mucchi lake 5.20% peadistrum spp and secendesmus spp in almost all the sample & lake mucchi was supported by earlier observation jain (1968). In Mucchi lake high quantity of scender smus spp mucchi lake indiacate the erganic pollution because scendemus indicate pollutin toler and gern (Paler, 1969)**.**During study period some spp of sesmild were recorded closrerium, spp, staruastrum and consmarium spp. Amount these phynkton consmarrium occure in abudance within chlorophycead in mucchi lake cosmarium spp 600 x 10^3 U/L was observed 2013 among pedistruma nd scendesmus.

2.2 Correlation with parameter: Chlorphyceae showed positive correlation with temperature. Philipose (1976). Chlorophcoccales. Can grow in more rang of temperature i.e. 15 to 30 ^{0}C. In present investigation the chlorococles observed temperature rang between 20 to 25.5 ^{0}C while the Density was lower at 25 ^{0}C. Thus chorococcales does not requised high temperature. Among chloroccales, Pediastrum spp was most large genera which was found to abundant in temperature rang 20 to 26 ^{0}C thus lavoring low temperature. Positive correlation was seen between chlorophyceae population and light in mucchi lake with highest correlation rang in case of paidastrum chlorococalles abudance with lower ph range ashtekar and kamat (1980) stated choloroccales grow luxuriantly in water with low as well as high ph. Venkateshwarly *et al.* (1990) reported high do content as one of the reason for dominance content of

clorophyceae. Chlorophyceae show positive correlation between do mucchi lake, pediastrum and secendstrums spp dominant in chlorococcales. Show higher co realtion with do ie.e. 6.01 to 7.1 mg/l range of do favourable for abudance of pediastrum chlorophyceae show positive correlation with at kalinity in mucchi lake domanat genera like pediasrum spp and scendesmus spp were highly correlated with toal alkalinity. Dominant desmid, consmarium spp from mucchi lake showed abudance in low as well as high alkalinity range. Chlorohyceae whow low correlation with calcium in mucchi lake abudance of cholorccales was observed at low calcium concentration in water padiastrum is most dominat gera of chlorococcales show weak response with calcium through chlorophycease show positive correlation with nitrate and weak negative correlation with silicate and phosphates.

3. Reference

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