RESEARCH ARTICLE

Blue Green Algae & Euglenoids of Water Bodies Near Malegaon

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ABSTRACT

The present study deals with diversity of blue green algae and euglenoids from two water bodies near Malegaon, Dist. Nasik. The survey was conducted from (January - December 1997). The first water body is river Mosam flowing through Malegaon, where 33 blue green algae & 23euglenoids were reported. In BGA *Oscillatoria* is a largest genus having 15 species each and G*loeocapsa* hasone spp. only. The second water body is percolation pond of Pimpalgaon, near Malegaon. In pond 10 BGA and 8 euglenoids were observed. In blue green algae 6 genera and 10 spp. were noted during present study.

Key words : Green Algae, Euglonoids & Water Bodies

INTRODUCTION

Algae forms important group of primitive, simple, cryptogamic thallophytes. About 90% of total photosynthesis in the world caused by algae. Algae play an important role in the primary productivity of any aquatic ecosystem and forms the base of food chain. Algal diversity have been studied by many workers in India (Forest, 1954; Desikachary, 1959; Vyas and Kumar, 1968). There is no publish record on algae of river Mosam and pond of Pimpalgaon. Therefore present work was undertaken. River Mosam a tributary of Girna, takes it's origin in Salher Mulher hills at an altitude 820 meters above MSL. The percolation pond is situated at Pimpalgaon 15 Km. away from the Malegaon. It is a small water body.The pond plays an important role in maintaining the water table and it is also use by the local people for washing and bathing.

MATERIAL AND METHODS

The algal samples were collected from three sampling stations for one year on monthly basis from (January to December, 1997), from 2 water bodies i.e. river Mosam and percolation pond. The samples were preserved in 4% formalin and taxonomic studies were conducted with the help of standard literature on the subject.

RESULT AND DISCUSSION

List of Blue green algae and Euglenophyceae found in river Mosam.

Cyanophyceae: *Chroococcus turgidus* (Kutz.) Nag., C. *minutus* (Kutz.) Nag., C. *minor* (Kutz.) Nag., *Gloeacapsa gelatinosa* kutz., *Aphanocapsa banaresensis*

Bharadwaja, *A. bifor-mis* A. Br., *Merismopedia convoluta* Breb.,. *M. punctate* meyen, *M. glauca* (Ehr.) Nag., *M. elegans* A. Br., *Spirulina labyrinthiformis* - (menegh) Gomont, *S. meneghin-iana* Zanard ex Gomont, *S. subtilissima* Kutz. ex~ Gomont, *S. major* Kutz. ex Gomont, *Oscillatoria orna-ta* Kutz. ex Gomont, *O. subbrevis* schmidle, *O. subbrevis f.* crassa *Dixit,* O. *curviceps* Ag. ex Gomont, *O. princeps* Vaucher ex Gomont, *O. laete-virens* Var. minimus Biswas, *O. chlorina* Kutz. ex Gomont, *O. homogenea* Fremy, *O. chalybea* (Mertens) Gomont Var. *insularis* Gardner, *O. Coralliane* (Kutz.) Gomont, *O. tenuis* Ag. ex Gomont, *O. amphibia* Ag. ex Gomont, *O. formosa* Bory ex Gomont/. *loktakensis* Bruhl and Biswas, *O. splendida* Grev. ex Gomont, *O. acuta* Bruhl et Biswas, *Phormidium ambiguum* Gomont Var. *major* Lefnmer-mann, *P. corium* (Ag.) Gomont Var. *capitatum* Gardner, *Lyngbya corticicola* Bruhl et Biswas, L *truncicola* Ghose.

Euglenophyceae: *Euglena acus.* Ehr., E. *cyclopicola* Gickelhorn, E.deses Ehr., E. *flava* Dang., *E. gracilis* Klebs., *E. haematodes* (Ehr.) Lemm., *E. limosa* Gard., E. *oxyuris* Schmarda, *E. proxima* Dang., E. *retronata* Johns., E. *schmitzii* Gojdics., £. *sociabilis* Dang., *Lepocinclis* orum (Ehr.) Lemm., *Phacus brevicaudatus* (Klebs) Lemm., *P. caudatus* Hueb., P. *orbicularis* Hueb., P. *horridus* Pochmann, *P, curvicauda* Swirenko, P. *anamolus* Fritsch et Rich., P. *allatus* Klebs var. *lemmermanni* Swirenko, P. *peteloti* Lefevre, *Trachelomonas ovalis* Daday., *T. planktonica* var. *oblonga* Drez. Cyanophycean algae grew fairly well throughout the year at all stations and better growth was recorded in summer season, similar observations were made by Vyas and Kumar (1968). In Cyanophyceae *Oscillatoria* is the largest genus having 15 species and *Gloeocapsa* has one species only. Members of Euglenophyceae showed their maximum growth in June and July. Vyas and Kumar (1968) also observed Euglenophyceae in rainy season. Among the Euglenoids four genera were encountered, *Euglena, Phacus, Lepocinclis* and *Trachelomonas.* List of Blue Green algae & Euglenophyceae found in percolation pond of Pimpalgaon.

BGA - *Aphanocapsa biformis A.Br, Merismopedia punctata Meyen, Spirulina meneghiniana Zanard ex Gomont, S. subtilissima Kutz ex Gomont, Oscillatoria subbrevis Schmidle, O.tambi Woronichin, Phornidium bohneri Schmidle, P. anomala Rao, C.D.,P. ambiguum Gomont Var. major Lemmeermall, Anabaena variabilis Kuetz. ex Born. et Flah.*

Tucker & Loyd (1984) stated that moderately high temperature supports the groth of BGA. In present study luxurient groth of BGA has been recoreded in summer season. Philipose 1959 Emphasized that natural factors like alkalinity, nitrates and phosphates are responsible for luxrient groth of BGA. Vyas and Kumar, (1968) attributed abundance of cyanophytceae to higher values of pH, temperature, phospate, nitrate and relative dissolved oxygen.

Euglenophyceae : *Euglena flava Dang, E.virdis Ehr, Phacus acuminatus Stokes, T. longicaudatus (Ehr) Luj, P. anamolus Fritsch et Rich, P. peteloti Lefevre, P. racivorskii Drezepolskii, Trachelomonas, ovalis Daddy.*
Percolation pond showed maximum population of Euglenoids during October, November and December. According to Manikya Reddy, P. (1984) lower pH is responsible for Euglenoid growth. The Euglenoid in percolation pond grow well when pH was 9.09.

CONCLUSION

On the basis of present study following conclusion can be drawn in river Mosam BGA grew well thoroughout the year at all stations and better growth was recorded in summer season. Members of Euglenophyceae showed their maximum growth in rainy season. Vyas and Kumar (1968) observed Euglenophyceae in same season. In percolation pond temperature is main factor which control the periodicity of BGA. Euglenoids grow well at pH 9.09.

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