CHAPTER II

REVIEW OF LITERATURE
Peters et al. (1985) carried out monthwise analysis of water samples of physico-chemical parameters to assess the pollution level of the water of Mokura dam in Lie-fte, Nigeria and noted that all parameters were within permissible limits.

Bounty La et al. (1997) studied the influence of drainage from Vas vegas valley on the limnology of Boulder Basin lake mead Arizona - Nevada.

Seasonal variation in physico-chemical parameters and plankton analysis of Kurichi pond were studied by Anvazhagan et.al. (1974)

Moore Casy studied zooplankton community structure in terms of composition, abundance and distribution in lake Livingston in Texas and other 1998. It was noted that feeding habits of fishes was affecting the zooplankton composition.

Kamla zofia (1997) has undergone the preliminary analysis of the zooplankton of some water bodies of village Zubrzyca Gorna in southern Poland.

Effect of summer fish kill on population dynamics of phytoplankton and zooplankton was studied by Temte J. et al successfull Biomanipulation was observed in entrophic Lake Mendita.

In India numerous workers have done remarkable work in the field of limnology in the last quarter of 20th century Bohara (1975) carried
out observation on certain hydrobiological factors of fresh water reservoir like Padma Sagar and Rani Sagar at Jodhpur.

Datta et al. (1983) studied diurnal variation in physico-chemical factors and zooplankton population in surface niche of two fresh water ponds to understand the inter-relations between them.

Datta et al. (1984) carried out investigation to see the co-relation between the primary productivity and the physico-chemical parameters of fresh water sewage pond.

Malohotra et al. (1984) studied diurnal variation in physico-chemical parameters of fish pond at Jammu.

Vankhade et al. (1984) studied on Physico-chemical conditions and plankton population of two lakes near Amarawati (M.S.).

Patil. (1985) studied the physico-chemical and biological characteristics of sewage stabilization pond.

Patil et al. (1987), singh et al. (1990), Jakher (1990), Chandan Bora (1990), Sanjeev Kumar (1990), Kaushik (1991), Belsare et al. (1992), Pathak et al. (1993), Rawat (1993), Dhamija (1994), Hajarika and Dutta (1994) and Swarnalatha (1997) etc. carried out the survey for the limnological studied of different water bodies in North India and noted the interaction between various environmental and biological factors. It was also noted that, the number of physico-chemical factors are affecting the biota in the water bodies. The environment of these water bodies was found to be supporting organic life in them.
Ghosh et. al. (1989) studied the polluted urban reservoir Hussain Sagar by considering the biotic factor and zooplankton population dynamics.

Chandrashekar et. al. (1991) thoroughly has undergone the statistical studies on the co-relation of dissolved oxygen levels with environmental factors in Amarawati River in south India.

Shastree Nalin et. al. (1993) studied phytoplankton as biological indications in lentic hydrosphere in Rukmini sarovar and Visar sarovar of Gaya. The study helped to understand phytoplankton dynamics as bioindicators.

Rekha Sharma et. al. (1990) carried out limnological studies of Yeshwant Sagar reservoir for plankton population dynamics among zooplankton rotifers, copepoda, cladocera and protozoa species were identified and estimated an average density of 40% for phytoplankton.

Dhoundial (1993) has presented the overview of limnological studies on natural lake and man made reservoir and has given limnological thermatic maps of India. He suggested highly sensitative and well equipped field study supported by detailed sophisticated laboratory work.

Jindal and Kumar (1993) studied the co-relation co-efficient between different physico-chemical parameters of fresh water pond of Nalagarh in Himachal Pradesh positive and negative co-relation between different physico-chemical parameter was noted.
Kumar (1994) studied the seasonal trends in biological and chemical properties of fish pond of Dumka, Bihar.

Ahmad, Singh (1993) studied the co-relation between physico-chemical factors and zooplankton during diurnal variation in freshwater tank at Dholi Bihar. The diurnal fluctuation in physico-chemical properties and zooplankton showed significant correlation.

Krishnamurti et.al (1994) investigated throughly the dissolved oxygen oxidisable organic matters and water temperature of Kosi River near Dandelli in Karnataka (India).

Nacharam Lake was under investigation of Laxmaih and Mahmood (1994) for the analysis of nutrients status and Biological characterstics.

Gaur (1995) studied the diuranl profile of some physico-chemical and biological parameter in freshwater lentic ecosystem with the permanent bloom of cyanobacteria.

Vohra (1996) studied the water quality and algal diversity indices as indications of pollution in fresh water system of Jammu.

Mahajan Anajana (1996) investigated variations of some hydrobiological parameters of fish pond in tribal area of west Nimas.

Ecological investigation of Lake of Hussain District Karnataka as a biological index pollution were studied by Ravikumar (1996).

Kaur et. al. (1996) studied inter-relationship of certain physico-chemical factros of pond.

Arvind kumar (1997) studied comparative hydrobiology of tropical water bodies with special reference to sewage pollution in south Bihar. The study reveals the hydrobiological status of two ecologically different water bodies.

Ambient air and drinking water quality of the Para Town Kakinada (A.P.) was studied by Someshwar Rao et. al. (1999)

The upper lake water Bophal in M.P. was assessed for the analysis of physico-chemical characteristics by Tiwari (1999) for drinking and irrigation purpose.

Harikrishna et. al. (1999) studied the distribution and ecology of phytoplankton in Kutt and wet land ecosystem in Kerala.

Kamat sima (2000) studied hydrobiological features of two temple ponds in Founda taluka, Goa, Algal composition was compared in two ponds and their correlation was found out with physico-chemical parameters.

Hydrogeo chemistry of ground water in Amangal Mahboobnagar Dist (M.P.) was studied by Pandurang Reddy et al (2001).

Narsimha Rao et. al. (2001) investigated limnology and diversity of plankton in sewage feed fish culture pond at Nambur near Guntur (A.P.).

Gayatriprakash and Jaiprakash (2001) presented their valuable reference work about the post, present and future of the water problems.

Bahura (2001) studied the diurnal cycle of certain abiotic parameters of fresh water lake the Gajner lake (Bikaner) in the Than desert of India.

Kuneav, Misra and Bhattacharya (2003) studied the flouride content in drinking water of Hojai sub division Nagar he suggested the ground water in various part of Hojal sub division in highly contaminated with flouride.

Suryanarayanan, D. Jayakumar, M. Prashanthi Devi and S. Balasubramaniam (2003) studied on the ground water was found the taste of the water is slightly brakish in several location.

Parimal chattopadhyay and Kushari (2003) studied on some physico-chemical characteristics of 5 water bodies all the water bodies under the present study were nutrient rich particularly during July and September.
Ravichandran *et.al* (2002) studied the drinking water quality with reference to physico-chemical parameters. The water in all selected places by and large, was found to be acceptable for drinking purpose. All the sample, were found to be contaminated by human and domestic wastes from these sources available for tourist and pilgrims and is unfit for human consumption.

Boradoli *et.al.* (2002) studied the physico chemical parameter of Toklai river which has becomes a dumping ground for all sorts of environmentally unfriendly materials and in due to course of time it has every probability to pose a threat to all to be sustaining processes.

The ground water quality of Venkatagiri Talav has been interpreted by applying correlation analysis. The ground water quality is mainly alkaline and hard in nature in contains mainly chloride of Ca and Mg and Sulphate. High values of conductivity generally indicate hardness of water strong correlation between the parameter was studied by Lingeswara Rao (2002). Bhora (1975) observed certain hydrobiological factors of fresh water Padma Sagar and Rani Sagar reservoir, Jodhpur.

The food and feeding habits of fresh water crustaceous, zooplankton were studied by Khan Rashid (1984).

Hershey *et. al.* (1987) studied the ecology of freshwater ostracods part II, population ecology in Balasagar tank Jodhpur (M.P.) India.

Periodicity of zooplankton in relationship to ecological factors was studied by workers like Saha and Pandit (1984).
Ecological studies on zooplankton of fresh water ponds in and around Bhuaneshwar were done by Sharma A. L. N. and Pattanik P.K. (1983). The zooplankton studying stock density values in three water bodies like Vani Vihar pond, Achayara Vihar cannal and artificial concrete eastern ranged from 578 to 8368 nos/100lit.

Sharma Rekha and Diwan (1990) studied the plankton population dynamics in Yeshwant sagar Reservoir - I. Meshram and Dhide (2000) studied the algal diversity with respect to pollution status of Walali Lake at Amaravati.

Bhosale (2001) studied the occurrence and ecological impact of manganese in water of river Godavari at Nanded (M.S.)

Ahirrao, Chaudhari et. al. (2001) Pulle J. S. et. al. (2001) also studied some water Bodies in Maharashtra for assessment of water quality.

Hiware and Jadhav (2001) made the biological studies of Manjara River near the Kallam, Dist. Osmanabad

Sathe Sanjay et al (2001) studied two man made reservoir from Jasgaon Tashil (M.S.).

Mishra and Singh (2004) studied Limnological studies of odda river with special reference to macrobenthos during the present study 8 genera of phytoplankton and 15 genera of zooplankton have been recorded 56 species of macrobenthos were collected during this study.
Zafar (1967) and Venkateshwarlu (1969) reported the abundance of green algae at comparatively high temperature in tropical water.

Munawar (1974) reported that water temperature also plays an important role in the periodicity of green algae.

Manikya Reddy (1984) reported the depth, dissolved oxygen, chloride, carbonate and carondioxide are most important physico-chemical factors in determining the distribution of phytoplankton.

Venkateshwarlu and J. Nirmala Kumari (1990) reported that extracellular substances released by other algae into the medium also have a significant impact in determining the distribution and growth of a particular species.

Vijaykumar (1994) reported that, increase in water temperature from March onwards accelerated the production of phytoplankton. He also stated that, primary productivity is higher in the tropical water than the temperature.

Shahu and Pandit (1995) observed the highest and lowest number of phytoplankton during summer season and rainy season respectively in river Ganga.

Bais and Tazeen Arasta (1997) reported that temp and light were the limiting factors for productivity in the Sagar Lake. He also noted that, carbon could have been the limiting factors because alkalinity was very high. Rajeev Kumar and Asif A. Khan (1995) reported that, high temperature stagnation of water, high alkaline condition of water, high
concentration of phosphate and nitrates exhibit the stimulating factor in blue green algae.

Venkateshwarulu (1969) stated that the temperature range of $28^0C$ to $35^0C$, low pH and high iron content were ideal for the growth of members of euglenophyceae. Mishra and Yadav (1992) reported that, abundance of Englena species in J.C. mill pond, when water temperature was lowest and pH was maxium.

Sinha et.al.(1990) carried out the assessment of drinking water quality of santhal pargana Bihar. Naidu et. al. (1990) studied the water quality of reservoir and temple tank as Tirupati and Tirumala for different physico-chemical characters was studied it was found that the water quality of reservoir is good as potable water. Singh et. al. (1991) studied the water quality of stagnant water bodies of North Bihar. Venkata Mohan and Jayarama Reddy (1995) carried out assessment of over all water quality of Tirupati. Kumar et.al.(2003) carried out assessment of fluoride content in drinking water of Hojai sub Division Nagaon. Masood Alam and Anwar Ahmad (2002) carried out assessment of the water quality in and around industrialized city of Delhi East and Sahibadad.


Venkataraman et al. (2000) studied zooplankton diversity in fresh water wet lands for Haora district west Bangal.

Raina Daisy and Padmaja (2000) analysed ground water and surface water sample for traces of pesticides.

Hydrogeochemistry of ground water in Amaangal Mahoob Nagar Dist A.P. was studied by Pandurang Reddy, Narsing Rao (2000).

Mariappan Yegnaraman et al. (2000) studied the quality of rain water collected at roof level and in pond of part of the Sivagan, Gangagar district.