1. LITERAURE REVIEW

Babu et al. (2002)

The present investigation has been done on qualitative analysis of gut content of charybdis, feriatus inhabiting the coastal waters of Mangalore showing gut which is consist of crustaceans, fishes, molluscus, unidentifiable and sand and debris. Maximum contribution is from crustacean’s i.e. 83.57% and shows the maximum presence in April. Sex variation is also observed month wise according to its habit.

Ganesan and Khan (2008)

The study were undertaken on wetland of West Bengal during the period 2004-2005 to know the physical & chemical parameter of water and occurrence and abundance of different species of zooplanktons during 3 different seasons. The lake is alkaline in nature with PH between 7.5 to 8.4 .The dissolved oxygen content reflects the pristine condition of water. Nutrients were available in trace amount only. Water was moderately hard. The zooplankton community of the lake has 70 species belonging to Rotifera, Cladocera, copepod and ostracoda collected from different zones. Rotifers were found to dominate the zooplankton community in terms of species richness. For the study of biodiversity of zooplanktons of this lake, Simpson’s species richness index and Shannon-Wiener diversity index were applied.

Firdous and Mukhtadir (2009)

This review summarize on zooplankton of fresh water body of U.K. For this research quantitative and qualitative technique were used with the help of Shannon diversity index, Evenness index, Species Richness index and Saprobic index. In every cases species of Rotifers, Cladocerans, Copepods and OStracod were found. Amount of the species is decreases as water is polluted. Even in some species having high tolerance capacity but it is not found in highly polluted water. It shows that Zooplankton are the bio indicator.
**Bhatnagar and Sangwan (2009)**

The study was conducted on water tank Brahmsarovar, at Kurukshetra in India to know the physic-chemical and biological characteristics. By using online calculator’s water quality index was calculated. Result shows increase in BOD, total solids, chlorides, alkalinity and decrease in dissolve oxygen. There is no any significant variation in plankton population was observed. Decrease in elimination of sensitive taxa was done by numerical value of species diversity index. As conditions are not beyond the limits so proper effort to disinfect the water is require and to educate the pilgrims can improve it. As fishing netting is banned in such tanks so it is recommended to use it for conservation of wild stocks of various fish species.

**Mahor (2009)**

The present study shows that in Tighra reservoir, Gwalior, Madhya Pradesh. The population of zooplanktons is maximum in the month of June and minimum in the month of September. It shows that it is highest in summer season as compare to winter and monsoon season. Also total 38 species were found belonging to 29 genera. It is also peakin November-December.

**Kanagasabapathi and Rajan (2010)**

The present investigation was carried out at newly constructed Irrukkangudi reservoir, Tamilnadu. Time period for this investigation is of eight months from August 2005 to March 2006. Phytoplanktons and zooplanktons were identified by slandered keys and water surface were also collected. Biodiversity of phytoplankton’s and zooplanktons were studied in this period. Total six different types of phytoplankton’s belonging to six classes were found. Also twenty five different species of zooplankton belonging to four classes were found. The names of these zooplanktons are Rotifera, Cladocera, OStracoda and Copeopoda.

**Ugale (2010)**

The present study deals with Biodiversity and seasonal variation of zooplanktons of Jagatunga Samudra Reservoir, Dist. Nanded, India. Study shows that zooplanktons were observed more in
winter season and less in number during monsoon season. It also shows that zooplanktons forms major link in the food chain. It provides way of predicting and increasing productivity of lake.

**Sharma and Tiwari (2011)**

The information obtained by this study will be highly useful in order to spread awareness in community to prevent further water pollutions and improve aquaculture. The analysis of zooplanktons shows that Rotifers, Protozoan, Cladocerna and Copepods were the large content of lony dam. The large quantity of total zooplanktons is shown in summer season and during monsoon season it is low. Numbers of zooplanktons species shows the dominating trend of its subgroups as Rotifera>Protozoa>Cladocera>Copepod. The biodiversity pattern of lony dam shows total zooplanktons with 29 species belonging to four taxonomic groups out of 29 species, 6 are protozoa, 11 Rotifera, 8 Cladocera, 4Copepod.

**Moorthy and Sultana (2011)**

The study was conducted on freshwater pond at Arakonna andCHetpet in Chennai. Time period of this investigation were January 2008 to April 2008. Durong this period zooplankton sample were collected with the help of plankton net of mesh size 100micro meter.the different species are separated under dissection stereobionuclar microscope and moun of the whole animals were prepared and identified. Also quantitative analysis is done. The samples were diluted in 5% of formalin solution. Result of this investigation revealed that there are twenty one Rotifers, eight cladocerans and six Calanoids species were available in Arakona town.

**Jafri et al. (2011)**

The physicochemical parameters of Haraz river on its zooplankton composition were investigated. The investigation was done on three site of river for period between august 2009 to July 2010.from these investigation only three zooplanktons were found. Rotifera with eight genera, Cladocera with nine and Copepoda with six genera .large no of rotifera were found i.e. 64.89%, followed by cladocra 19.62% and Copepoda 15.32%.zooplanktons of this river were
affected majorly by pH and nutrients. The study showed that the presences of species such as Leadella, Mesocyclops, Polyarthrais the biological indicator for eutrofication. The Shannon-Wiever species diversity index values were also different for all three sites. Result showed that changes in water quality of this river affect the composition of zooplanktons.

Magarde et al. (2011)

Limnological study of upper lake contains the comparison of water quality parameters of four different sites every month at surface and bottom level of upper lake, Bhopal during the year 2008. Sample collected were examined for their limnological characters. i.e. physical characters and chemical characters. In physical characters Temperature, pH, turbidity, taste, total hardness was analyzed. In chemical characters BOD, COD, Dissolved oxygen, total alkalinity, Chloride, Sulphate was analyzed. For the measurement of Dissolved oxygen Winkler’s method with azide modification were used. The data obtained from this analysis were used to show the correlation between various water quality parameters.

Thirumala et al. (2011)

For this paper study was conducted on Bhadra reservoir Karnataka during the period June 2004 to May 2005. This reservoir is useful for various purposes like electricity, fishery and tourism. During the study 33 fish fauna were found which belonging to species of cyprinidae 18, channide 2, bagridae and siluridae 3 were found. Out of the many fishes is useful for food. Diversity of them is more after monsoon. Pre monsoon diversity is low. Dissolved Oxygen was large in number, low BOD and other nutrient indicating the body is moderately oligotrophic in nature. To save the diversity and to increase fishery practice diversity information system is needed.

Dheenadayamoorthy and Sultana (2011)

In current study zooplankton sample were collected from a fresh water pond at Arakkona and Chetpet in Chennai. By using quantitative analysis twenty one Rotifers, Eight Cadocerans and six Calanoids species were identified in collected samples of zooplankton. The biodiversity of freshwater zooplankton richness in various ponds collected in the month of January 2008 – April 2008.
**Ronquen et al. (2011)**

In this paper distribution of limnology through various literature and remote sensing technique was studied. The area of study is wet land of Yinchuan plain. In last 60 years due to industrial waste water, excessive exploration of agriculture resulting in wetland shrunk. This results in temperature rise dry climate, Yellow river floods and other natural factors. To further deterioration it is very necessary of local governments increase more economic investment.

**Shinde et al. (2012)**

The study is concern about seasonal variation and biodiversity of zooplanktons during January 2008 to December 2008 at Harsool-Savangi dam, Aurangabad. Simpson’s index as well as Shannon-Weiner index is used for this. Maximum numbers of Rotifers were found flowed by Cladocerons, Copepods and minimum numbers of OStracods were found. Maximum population density of Rotifers, Cladocreas, Copepods and OStracods were recorded at north side in summer and minimum were recorded at south site in monsoon. Margalf’s index (R1) and Menhinick index (R2) values (3.58 and 0.87) were found to be highest at south side and lowest at (3.16 and 0.56) north side.

**Pandey et al. (2012)**

Present study was investigated at Laharpur reservoir Bhopal, (M.P) India. During the year August 2009- July 2010 this reservoir is contaminated and main reason behind it is developmental activities and occupancy in the city followed by city sewage, industrial waste and agricultural waste fields. Physic chemical parameters were analyzed. Such as Temperature, pH, conductivity, turbidity, total hardness, Ca and Mg contents, alkalinity, BOD, COD etc. American Water Works Association, American Public Health Association (APHA) was made. This study showed that this reservoir is highly polluted water body due to municipal wastes, run off from agricultural fields. Water has become unfit for drinking and other domestic uses. The present
survey of reservoir is the need of current time to know the status of water quality so that further deterioration of water quality can be controlled.

**Murugan and Prabaharan (2012)**

The aim of study of Kamla basin reservoir, District Darbhanga, Bihar, is to know physical and chemical parameter. The study is conducted during June 2010 to May 2011. Water of reservoir is used for various livestock activities. for fish collection various size of mesh were used. Total 35 fish fauna identified during the investigation which belongs to 22 families. The diversity of species is more in post monsoon and low in pre monsoon. The more value of DO with low BOD and other nutrients level shows that the water body is oligotrophic in nature. To save diversity and to increase fishery practices there is need of diversity information system.

**Tamot and Awasthi (2012)**

The current paper deals with water quality monitoring in Shahpura lake Bhopal, Madhya Pradesh. Physico-chemical parameter of this lake is evaluated. Reservoir found eutrophic in nature. Due to development and township expansion around the lake which has negative impact on the quality of water. Also lake receives domestic sewage water which harms the water quality. To prevent it certain government strategies require to follow.

**Tijare (2012)**

Study of limnology with reference to fish culture was done at Bothadi reservoir, Gadchiroli District, Maharashtra. For the physical and chemical parameters sample was collected from different location of reservoir. Phosphate content is moderate in reservoir indicating that it is in favorable condition for fish culture. For maximum fish yield it is necessary for better treatment to reservoir i.e. prevention of organic matter, reduction phosphate ion concentration to certain extent is needed.

**Adile (2013)**

Main aim of present study is to analyze the microbial status and physicochemical parameters of Mahanadi River at Kharoud & Balpur, Chhattisgarh, India. During this study collected water
sample were examined by various methods. The study shows the result that the river Mahanadi is polluted and turning towards eutrophication. For human consumption its water is not suitable. To avoid it proper biological and chemical treatment of domestic sewage and industrial effluents is suggested before discharge to river.

**Sitre (2013)**

The study was conducted on Ghotnimbala reservoir in Chnadrapur district Maharashtra. In this study biodiversity of reservoir is represented by total 7 category namely, Rotifera, Cladocera, Protozoa, Copepoda, Ostracoda, nematode and Annelida. Total 21 species were found. This reservoir found polluted as pollution indicator species as Brachionus angularis, Moina dubia and Filinia longiseta were found in this reservoir. This reservoir is used by local citizens for cloth washing and open defecation on the reservoir bank leads to deterioration of it. If a current situation is continued for few year, this water body will deteriorate rapidly and chances of becoming dry land in coming time and chances of permanent loss of this reservoir.

**Chaouhan and Kanhere (2013)**

This investigation was done to study the biodiversity of zooplanktons in Barwani tank of M.P. To collect the sample, sample plankton net of mesh size 64 micron was used. The diversity of zooplankton is depending on interaction of physical, chemical and biological process. Total 23 species belonging to four groups has been found. Out of Protozoa 8 species, Rotifera 6 species, Copepods 5 species, Cladocera 4 Species were found. Diversity of this tank is more as compare to flowing water body link river Narmada. Only 21 genera of Zooplanktons were found.

**Khwaja et al. (2013)**

The present investigation was done to know the water quality i.e. physical as well as chemical characteristic of water for the purpose of conservation of Narish Mehta Lake of Junagad, Gujrat. For this water ample were collected in plastic bottle and analysed it. For the analyses NEERI and APHA method was used. The dissolved Oxygen was found highest in winter and lowest in summer. DO show the negative co relation with BOD. Water quality index was found in range of 169.93 to 256.97 in monsoon and summer season. The result sshowed that the lake was getting
polluted as continuous discharge of junk materials, construction work material which affect human quality life.

**Kumar et al. (2013)**

The study was attempted to know hydrobiology of Barna reservoir on the river Barna. Physic chemical parameters were studied as per the standard methods and correlation has been found with aquatic biota of this reservoir. Total 68 species of phytoplankton, 46 species of zooplanktons and 26 species of fish were found in this reservoir. This shows the flourishing quality of reservoir. Resulting reservoir found quite promising.

**Ahirrao (2013)**

The investigation area was at Bori dam, Jalgaon district, Maharashtra. Fishes were taken with the help of fish men during the year June 2102 to may 2013 on every month. Initially naming has been done by local name according to fish men. But later naming has been done scientifically and classification also done. In this investigation total 39 species were found. Out of 24 genera and 12 families were grouped under 7 orders. Cypriniformes found in large quantity.

**Giriyappanavar and Patil (2013)**

As per this study for exact conclusion of water quality study of physical and chemical parameter is not enough. Water quality index has given easy way of analyzing water quality by calculating all parameters. The National Sanitation Foundation-Water Quality Index (NSF-WQI) is useful index to calculate it. This index is calculated by examining physical and chemical parameters like temperature, pH, dissolved oxygen, BOD, COD, total phosphorus, nitrate, Turbidity etc.

**Soni and Thomus (2013)**

Present investigation shows the physic chemical characteristic of Dakor Sacred Wetland (DSW), Anand district, Gujrat. The existing wetland is contaminated with industrial waste, local people involvement. It lead to create need to evaluate physical and chemical parameter of DSW. in this study temperature, pH, DO, total alkalinity, Calcium, Magnesium, Phosphate, Sulphate, Co2, were evaluated. By evaluating all this parameter it is necessary to improve
physical, chemical and biological integrity with rigorous restoration and management strategy to maintain ecological imbalance.

Jeeani and Kaur (2014)

Present comparative investigation is done on Dal Lake, Kashmir, India. It is carried out to know the changes in water quality during one year. Physical and chemical analysis shows that water temperature of is maximum in summer and minimum in winter. PH fluctuation is observed from 7.1 to 9.3 showing alkaline nature of water. Total 40 taxa of zooplankton were recorded during this period. It indicates that there is loss of biodiversity in this lake.