



RESEARCH ARTICLE.....

# Seasonal variation of phytoplankton diversity, density and palmer's pollution index of freshwater lake, rural area of Ahmedabad

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**ABSTRACT.....** The present study was carried out on Manipur lake of Manipur village. The plankton were collected, counted and were identified by using the method suggested by APHA (1985); Prescott (1970) and Edmondson (1959). The planktons were counted by using Sedgwick Rafter counting cell. Different class such as cyanophyceae, chlorophyceae, bacillariophyceae and euglenophyceae. Among all these classes the listed phytoplankton such as *Anabaena* sp., *Merismopedia* sp., *Ankistrodesmus* sp., *Actinastrum* sp., *Closteriopsis* sp., *Closterium* sp., *Coelastrum* sp., *Crucigenia* sp., *Gonium* sp., *Pediastrum* sp., *Scenedesmus* sp., *Tetraedron* sp., *Amphiplura* sp., *Cyclotella* sp., *Cymbella* sp., *Navicula* sp., *Nitzschia* sp., *Synedra* sp., *Euglena* sp. and *Phacus* sp. were recorded in Manipur lake. The study was carried out monthly but was tabulated seasonally by using statistical method. From the listed data the quality of water was concluded. Palmer stated that composite rating of algae, tolerating organic pollution and developed an index to establish the status of the aquatic body. In this method to determine the level of organic pollution by studying the algae present in a sample of water.

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