CONCLUSION
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1. In all the ponds, water temperature follows the trend of air temperature and is always found to be less than air temperature. Always a positive correlation between air temperature and water temperature was obtained.

2. Carbon dioxide was found to be absent throughout the period of investigations in all the ponds.

3. Increase in pH is the result of the rise in carbonate alkalinity resulting from the photosynthetic activity of phytoplankton and green algae. Decrease in the pH can be attributed to the release of anaerobic water.

4. Higher values of dissolved oxygen might be due to increased photosynthetic activity while lower values may be because of its utilization during decomposition of organic matter and respiration by micro and macro-organisms.

5. Presence of blue-green algae indicates the eutrophic nature of the water body. They start increasing in early summer and reached its peak at 33 °C and then decreased towards monsoon, then at the end of monsoon the number increased because of the rise in temperature.

6. Chlorophyceae (green algae) depicts the eutrophic nature of the water body. They react diversely at different temperature.

7. Bacillariophyceae (diatoms) formed the fifth and smallest group in
population abundance among phytoplankton.

8. Members of euglenophyceae showed more tolerance to organically polluted waters and thus are used as indicator of organic pollution.

9. Desmids are found less in quantity in these water bodies.

10. Rotifers, Cladocerans, Copepods and Ostracoda constitute the major groups of zooplankton population and contribute significantly to secondary production of these ecosystems.

11. Interspecific and intraspecific factors influence the distribution and abundance of zooplankton. The availability of food affects the zooplankton by affecting the female fertility. They showed polymodal occurrence.

12. Crustaceans are dominated by Cladocerans and Copepods. Cladocerans are important components of micro faunal food web. They serve as major prey item for fry, fingerling and adult of various economically important and cultivable fish species. If the food supply is increased for a stretch of time they usually level up high number to dominate the population.

13. Copepods are significant primary and secondary consumers in aquatic food chains. Continuous occurrence of egg bearing females, nauplii and copepodite stages, as found in almost all the months of investigation periods, showed the prolific breeding nature without being affected by environmental factors.
14. Ostracods are only minor elements in the diet of young and adult fish. They are benthic in nature and thus are found in less number in surface waters.

15. All organisms show preference to the climatic conditions. During unfavourable conditions, they disappear and again reappear on the return of favourable conditions.