

A PRELIMINARY SURVEY OF ALGAL GROWTHS ALONG
THE SHORELINES OF THE CHAIN O' LAKES

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INTRODUCTION

On 24, 25, and 26 April, 1971 a ~~survey~~ ^{rather intensive!} sporadic survey was made of the algae along the shorelines of the Chain O' Lakes. The purpose of this survey was to pinpoint the location of algae growths and determine the relationship between such growths and nutrient sepage from the waste disposal units of certain structures along the shoreline. Although the data received is incomplete, an essential segment of the complete study has been accomplished. That is, we have determined the location of potential algal blooms, thus suppling future surveys with the exact places at which to obtain further data.

This preliminary survey is but a segment of a complete study aimed at convincing the lakeshore residents that an adequate sewage-treatment facility is essential if the quality of the lakes is to be maintained.

MATERIALS and METHODS

This preliminary survey was conducted on the above mentioned dates by seven members of the spring semester Aquatic Zoology class. Algal samples were obtained from lakes Torch, Elk, Bellaire and Clam. ^{SP} Skegomog Lake was observed and algal locations were noted but no samples were secured. Three boats were used; two small outboards and the "Fishhawk", a small cabin cruiser. The "Katty M" was substituted for the "Fishhawk" on lakes Skegomog and Elk. ^{SP} The individual outboards, with two men each, followed opposite shorelines sampling wherever specimens were noticed. Field notes were compiled for each sampling station and their locations were noted on lake maps. The larger boats, moving up and down the center of the

lakes, acted as a headquarters supplying materials and collecting secured samples. The "Katty M" was the only boat used to survey Lake Skegomog.

Individual periphyton samples were obtained by scraping them with a knife from rocks, pipes, and debris found along the shore, usually in a partially submerged state. Additional samples were secured with the aid of a long-handled net.

The samples were preserved immediately in 4% formalin and transported to the Central Michigan University laboratory where they were initially identified by all the members of the Aquatic Zoology class.

RESULTS

The following is a preliminary identification of five of the algal samples from the shoreline survey of the Chain O' Lakes. An asterisk indicates those organisms which predominated in each of the samples.

- ⑨ (1.) West Torch Lake
4-25-71
South of road across point
* (A.) Ulothrix species
- ② (2.) West Torch Lake
4-25-71
* (A.) Cladophora species
- (3.) East Torch Lake
4-25-71--8
* (A.) Ulothrix species
(B.) Cymbella species
- (4.) East Torch Lake
4-25-71--2
* (A.) Ulothrix species
(B.) Navicula species
(C.) Diatoms
- ⑩ (5.) West Bellaire Lake
4-25-71
* (A.) Ulothrix species
(B.) Cymbella species
(C.) Navicula species
(D.) ? Achnanthes species

can be sp. Needs more info. regarding location

ditto

ditto

9.3 ditto Care of spelling; data above should be in bottles or from sheets I have

NOTE: The exact locations of samples 2 and 5 were not supplied at the writing of this report.

in bottles?