

Algal Survey of
The Chain of Lakes

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INTRODUCTION

Algae surveys were made sporadically over the last 2 - 3 years in the Chain of Lakes of Antrim county Michigan. These samples were sent in by members of the Lakes Association in order that they might help to assess the condition of the lakes.

MATERIALS AND METHODS

During the weekend of April 24, 1971, various members of Dr. Curry's Aquatic Zoology class used three boats to locate algal growths on the bottom of Bellaire Clam Torch, and Elk Lakes. All samples were collected by net or hand off of rocks, pipes, and other objects on the bottom, and preserved in a 4 percent formalin solution. The samples were then taken to Central Michigan University and identified by members of the Aquatic Zoology class. Each student identified five samples.

RESULTS

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1. North Elk Lake, west of Kewadin Motel: Cymbella sp., Fragellaria sp., and Synedra sp., with Cymbella being the dominant genus. (1,2)

3
flourish in water

- North end of Elk Lake, FR 4-26-71-6: Cymbella sp., and Achnanthes sp., with Cymbella being the dominant genus. (1,2)
3. East Elk Lake, FR 4-26-71-4: Cladophora sp., Diatoma sp., and Gomphonema sp., epiphytic on the Cladophora. (1,2)
4. East Torch Lake, FR 4-25-71-3: Meridion sp., (1,2)
5. North end of Clam Lake, near red cottage with white beach house: Ulothrix sp., Gomphonema sp., and Diatomella sp., (1,2)

DISCUSSION

A majority of the algae were diatoms, which tend to grow best in early spring under colder water conditions of 10° - 15°C. Of the green algae, Cladophora sp., and Ulothrix sp., the plants appeared to be young, indicating a cold condition. Green algae tend to grow best in temperatures near 15° - 20°C. None of the algae found were indicative of a eutrophic condition. In that these algae were found in patches, indicates the presence of a localized nutrient source such as sewage effluent, overflow of septic tanks, or some other source. (1,2)

REFERENCES CITED:

1. Smith, G. M., Fresh-Water Algae of the United States, Second edition, 1950, New York. pp. 142-144, 213-216, 440-510.
2. Prescott, G. W., How to Know the Freshwater Algae, Second edition, 1970, Wm. C. Brown Co., Dubuque, Iowa. pp. 161, 183-184, 281-315.

*Need better
locations on some samples.
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