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Chain O'Lakes Algae
Survey and Identification

Prepared for: Aquatic Zoology

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INTRODUCTION:

This is a Base line or preliminary report on the algae collected in the Chain of Lakes System, Atrim County, Michigan. Other sporadic and limited studies have taken place in the past, but this is the first complete study of this nature. Algae was collected from the Shoreline of Lakes Bellaire, Clam, Torch, and Elk. No samples were taken from Skegemog Lake due to the rough waters encountered there.

METHODS AND MATERIALS:

Three boats were used on this survey. The shore line of each of the lakes were sampled by two outboard boats, one on each side of the lake, respectively. A twenty-seven foot cabin cruiser, the Fish Hawk, cruised the center of the lakes and assisted with any problems encountered by the smaller boats. The algae was collected by hand, or with a small net, from rocks, pipes, etc., in areas where it was encountered. The survey was made on April 24, 25, and 26, 1971. This was shortly after ice breakup on the lakes, so as to prevent currents and wave action from moving the algae from the area of original growth. All algae was preserved in four percent formalin and returned to the Aquatic Zoology class at Central Michigan University for identification. Members of the class made the collections on this survey.

RESULTS:

Concerning the algae species encountered on this survey, it should be noted that water temperature will have an influencing effect on the types found. Temperatures from two to ten degrees centigrade favors the growth of diatoms, from ten to twenty degrees centigrade favors the growth of green algae, and above twenty degrees centigrade favors the growth of blue-green species of algae. The results of my identification of six algae samples are given below.

	<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SPECIES FOUND</u>
①	1. West Torch Lake	White cabin next to brick one with sea wall. $\frac{1}{2}$ mile up from marina, Torch River.	<u>Desmidium sp.</u> <u>Zygnema sp.</u>
	2. East Torch Lake	FR 4/26/71	<u>Zygnema sp.</u> <u>Achnanthes sp.</u>
②	3. West Torch Lake	Just North of Torch Village.	<u>Synedra sp.</u> <u>Diatoma sp.</u> <u>Navicula sp.</u> <u>Spirogyra sp.</u> <u>Cymbella sp.</u>
③	4. West Torch Lake	FRN 4/25/71 just up from starting point. Pipe right above sample.	<u>Cladophora sp.</u> <u>Zygnema sp.</u> <u>Diatoma sp.</u> <u>Synedra sp.</u>

<u>LOCATION</u>	<u>DESCRIPTION</u>	<u>SPECIES FOUND</u>
5. East Torch Lake	FR 4/25/71 - 1	<u>Zygnema sp.</u> <u>Diatoma sp.</u> <u>Fragillaria sp.</u> (Note: Mostly detritus in this sample)
(4) 6. West Torch Lake	4/25/71 dock South of village marina's dock. Stretching for long distance along shore	<u>Achnanthes sp.</u> <u>Tabellaria sp.</u> <u>Cymbella sp.</u> <u>Ulothrix sp.</u> <u>Synedra sp.</u>

2 locations
should have better
locations.
9.8