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WATER INVESTIGATIONS BRANCH
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Natural Phytoplankton Communities in Lakes of the Kalamalka-Wood Lake Drainage Basin.

Contribution to Project 20 under the Kalamalka-Wood Lake Basin Water Resource Management Study.

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in conformance with the classic pattern. More than half of the predominating species in Kalamalka Lake were also predominants in Wood and Ellison Lakes.

The algal populations in Wood Lake were much greater than in Kalamalka Lake when the bias in sampling is taken into account. A late August 1972 peak in population also coincided with a similar peak in southern Kalamalka Lake, a coincidence attributable to flows through the Oyama Canal. The peak algal populations found in Wood Lake in 1973 were less than those in 1972, but this may be an illusion created by the timing of sampling. The successional pattern of types of algae was more complicated than in Kalamalka Lake. Several species of green algae attained prominence. The number of species of diatoms and blue-greens that attained predominance was also larger than in Kalamalka Lake. The golden algae attained predominance in May 1973, but never in 1972, while the green algae which were predominant in 1972 were not in 1973. This is taken as evidence of significant changes in the conditions between the two years. A total of 18 species attained predominant status in Wood Lake, compared with 11 in Kalamalka. The species which predominated during the most months were not diatoms, as in Kalamalka and Ellison Lakes, but a nuisance blue-green alga.

Ellison Lake displayed early summer prominence of diatoms, as did Kalamalka and Wood Lakes, but green algae and cryptomonads were more prominent in Ellison and Wood Lakes than in Kalamalka Lake. Conversely, Ellison and Wood Lakes did not have such a preponderance of diatoms and golden algae at that time of year. Ellison Lake had relatively small populations of blue-green algae in early summer, compared with Kalamalka and Wood Lakes. Ellison Lake was unique in the basin in having large populations of dinoflagellates, which predominated during August-October. A second unique feature was the