

ABSTRACT

THE IMPORTANCE OF LARGE BENTHIC INVERTEBRATES TO THE DIET AND GROWTH OF YELLOW PERCH IN LAKE ST. CLAIR, MICHIGAN

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Yellow perch (*Perca flavescens*) were collected monthly from Lake St. Clair from May-October, 1993 using a bottom trawl. Data on wet weight, length, age, redworm infestation, somatic tissue dry weight, somatic tissue water content and stomach contents were obtained. Consumption rates were calculated using a bioenergetics model and an algorithm. Wet weights were above the Michigan averages from August-October and growth was much better than perch in Saginaw Bay, Lake Huron, western Lake Erie and some populations in central Lake Erie. Young-of-the-year yellow perch switched to benthic invertebrates in August. Older fish ingested invertebrates, primarily amphipods and *Hexagenia* sp., in late spring and summer and switched to *Orconectes propinquus* and fish in the fall. Age 1-2 perch ingested *Bythotrephes cederstroemii* in September. Age 2-4 perch were much above maintenance rations from July-October. The diet of large invertebrates, especially amphipods and *Hexagenia* sp., is believed to be the reason for good growth.