

## Costs of Rearing and Stocking Walleye in Michigan During 1994

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*Abstract.*—Michigan walleye *Stizostedion vitreum* rearing and stocking costs were estimated for 1994. Expenses included in estimates were labor, travel, and materials for egg-take, incubation, fingerling rearing, and stocking operations. Costs not included were capital investments for the incubation facilities. Average stocking costs/fish for fry, spring fingerlings, and fall fingerlings were estimated at \$0.00091, \$0.044, and \$0.581. Fry were stocked as sac fry, and spring and fall fingerlings averaged 4.2 cm and 11.9 cm. The cost of stocking fall fingerling walleye, attaining lengths representative of wild fall fingerlings (12.7 cm), was \$1.23/fish. Stocking costs/ha for fry, spring fingerlings, and 12.7 cm fall fingerlings were \$4.49/ha, \$2.73-\$10.87/ha, and \$60.27-\$121.77/ha. Fingerling rearing costs increased very little over the previous 15 to 20 years. The total cost for rearing and stocking 18,445,000 fry, 7,795,972 spring fingerlings, and 56,122 fall fingerlings was \$395,191. Labor, travel, and materials accounted for 63.9%, 5.1%, and 31.0% of total cost. Total labor expended was 6.0 full time equivalents (FTEs). Volunteers provided 10.9% of total program cost, including 0.8 FTEs of total labor. Fingerling rearing is conducted in earthen ponds and the ten year average annual cost for pond purchases, construction, and major renovations was \$58,729.

Michigan has an extensive history of stocking walleye *Stizostedion vitreum* in Great Lakes and inland waters. Stocking prior to 1970 was described by Anonymous (1974). Walleye were first stocked in Michigan waters in appreciable numbers in 1882. Eggs were collected from the Saginaw Bay stock, incubated in hatcheries, and distributed as fry to innumerable inland lakes as well as the Great Lakes. By 1920, one billion fry had been stocked and similar stocking rates continued through 1929. Production of walleye fry averaged 100 million per year during 1932 - 1942, but dropped to zero by 1947. Fisheries

were established by stocking fry in at least twelve lakes in the upper peninsula between 1930 and 1950. Attempts to rear walleye to fingerling size during this period failed. During 1950 to 1964, stocking policies for walleye were targeted at stocking fingerlings in lakes where natural spawning was lacking. Fry stocking diminished but fingerling rearing programs began in 1951. Fingerling walleye were stocked in 60-70 lakes during 1951-1963. Some new introductions were made while others were to maintain populations in lakes where walleye reproduction was inadequate. Successes were variable and frequently unsatisfactory