

## Abstract

Thesis: Age, Growth, and Mortality of Channel Catfish, *Ictalurus punctatus*, in Indiana Reservoirs

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Eagle Creek, Monroe, Patoka, Brookville, and Cecil M. Harden are Indiana reservoirs ranging in size from 546 to 4,343 hectares, and are primarily managed for flood control and recreation. Channel Catfish, *Ictalurus punctatus*, is a valuable part of the recreational fishery in these reservoirs, but unfortunately, scant information is known about their current status. Our objectives for this study were: 1. determine age and growth of channel catfish, 2. compare population demographics such as length and age frequency distributions, and 3. determine mortality. A total of 1,022 fish was collected up to age-10. Hierarchical growth population models using Bayesian statistics showed growth rates and mortality rates were not statistically different among reservoirs. Growth rates ranged from 0.07 to 0.12, and mean total annual mortality rates ranged from 0.21 to 0.26. Low instantaneous fishing mortality rates, 0.06 to 0.08, suggested the Channel Catfish fishery was under-used and should be promoted to Indiana anglers.

