

Evaluating sustainable muskellunge exploitation in the Ceded Territory of Wisconsin

This study will develop a statistical catch-at-age model to estimate sustainable exploitation rates for muskellunge in the Ceded Territory of Wisconsin and reevaluate the safe harvest model that is currently used to determine tribal muskellunge spearfishing quotas.

TIMELINE

Launch: July, 2019

Completion: June, 2022

FUNDING

Federal Aid in Sportfish
Restoration

DNR PARTNER BUREAU

Fisheries Management

EXTERNAL STAKEHOLDERS

University of Wisconsin-Stevens
Point, Wisconsin Cooperative
Fishery Research Unit, Great
Lakes Fish and Indian Wildlife
Commission

Muskellunge are Wisconsin's state fish, and an important species to recreational and tribal fisheries. Currently, the limit reference point for muskellunge exploitation in the Ceded Territory of Wisconsin for angling and tribal spearfisheries is based on dated information and likely overestimates a sustainable limit reference point.

This research addresses a critical need for a statistical catch-at-age model using the best available muskellunge data to evaluate the current limit reference point and inform an adjustment if needed.

The statistical catch-at-age model will provide information on what management actions may be necessary to sustain muskellunge populations in the joint tribal and angling fisheries in the Ceded Territory of Wisconsin.

Muskellunge in northern Wisconsin are an economically and culturally important resource, therefore it is vital that we determine a sustainable exploitation rate and revisit the current safe harvest model.



Key Points

- » The goals of this project are to develop a muskellunge statistical catch-at-age model for the Ceded Territory of Wisconsin to estimate a sustainable exploitation rate to maintain the fishery.
- » The current muskellunge safe harvest model and associated limited reference point (27%) likely overestimates tribal quotas on small lakes and underestimates tribal quotas on large lakes. Reevaluation of the current muskellunge safe harvest model may allow for the appropriate distribution of tribal muskellunge harvest to sustain this fishery.
- » This research is critically needed to ensure the sustainability and quality of muskellunge in the joint Ceded Territory of Wisconsin fisheries.

SPOKESPERSON

Stephanie Shaw

Natural Resources Research Scientist

Stephanie.Shaw@wisconsin.gov

(715) 892-0375

