

# Michigan Arctic Grayling Initiative

Freshwater Summit  
NMC Hagerty Center  
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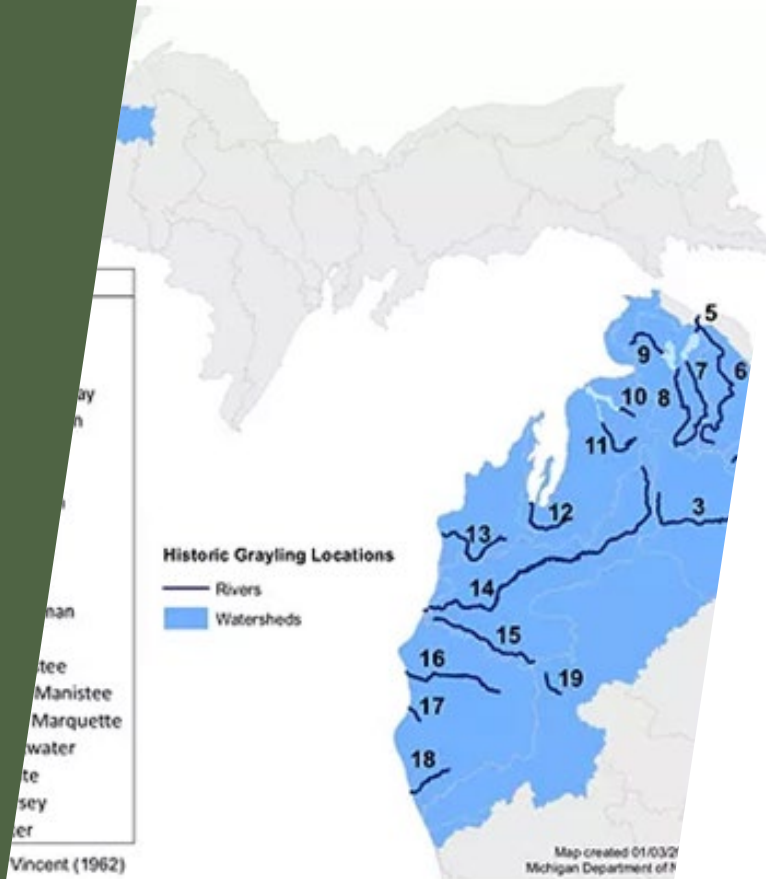
# Presentation Overview

- ▶ History of Arctic Grayling in Michigan
- ▶ Past restoration efforts
- ▶ Current effort to reintroduce Arctic Grayling
- ▶ Review of milestones reached
- ▶ What's coming next?



# History of Arctic Grayling in Michigan

- ▶ Native only to Michigan and Montana in the Lower 48
- ▶ Dominant salmonid species in NLP cold water streams
- ▶ Not believed to be native in UP streams
- ▶ In trouble by mid-late 1880s
- ▶ Extirpated from Michigan in 1936



# What led to their extirpation?

- ▶ Habitat degradation from rapid deforestation of NLP
- ▶ Unregulated harvest
- ▶ Introduction of competitors/predators



# Previous Supplementation and Reintroduction Efforts

- Several attempts to bolster or reintroduce grayling
- Tried multiple life stages from eyed eggs to adults

| Year             | Waterbody                 | Amount                         |
|------------------|---------------------------|--------------------------------|
| 1877, 1880, 1925 | 3 Lower Peninsula Rivers  | Unknown (Adult-Translocation)  |
| 1900 to 1933     | Numerous Rivers and Lakes | >3,330,000 (fry and eyed eggs) |
| 1934 to 1941     | Numerous Rivers and Lakes | 70,000 (yearlings)             |
| 1958 to 1960     | Keweenaw County Streams   | 300,000 (fingerlings)          |
| 1987 to 1991     | 13 Lakes and 7 Streams    | 145,000 (yearlings)            |



# What's different this time around?

- ▶ Not stocking advanced life stages
- ▶ Learning from Montana's experience
- ▶ Addressing critical imprinting periods
- ▶ Remote Site Incubators/Floating Basket Incubators
- ▶ Starting with strong genetic stock
- ▶ Alaska Department of Fish and Game stepped up BIG



# Michigan Arctic Grayling Initiative (MAGI)

- ▶ Cooperative Partnership
  - ▶ MDNR and LRBOI foundational partners
  - ▶ Nearly 50 Partners
- ▶ MAGI Goal: Establish self-sustaining populations of Arctic Grayling within its historic range in Michigan



# Michigan Arctic Grayling Initiative

- ▶ First organization meeting in August 2016
- ▶ Action Plan developed in July 2017
- ▶ Four Core Groups
  - ▶ Management
  - ▶ Production
  - ▶ Research
  - ▶ Outreach and Education

## Michigan's Arctic Grayling Initiative Action Plan



# Initiative Funding

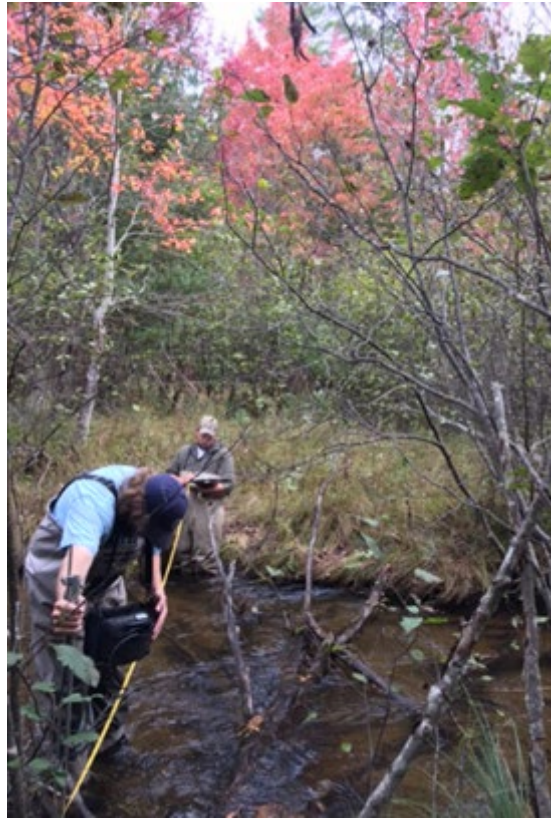
- ▶ Almost entirely funded with donations
- ▶ First grant came from Consumers Energy Foundation
- ▶ Henry E. and Consuelo S. Wenger Foundation has been our champion
- ▶ Iron Fish Distillery continues to contribute funds toward research
- ▶ Many other donors have contributed
- ▶ Third grade student in Royal Oak raised \$5,000 for MAGI



# Michigan Arctic Grayling Initiative - Research Core Group



Photo courtesy of Nicole Watson



- ▶ Collaboration among DNR, tribal governments and universities
  - ▶ Stream habitat evaluation
  - ▶ Evaluation different types of RSIs
  - ▶ Dr. Nicole Watson's PhD work at MSU
    - ▶ Competition, predation and imprinting
  - ▶ eDNA study to determine presence/absence





# Michigan Arctic Grayling Initiative - Fish Production Core Group

- ▶ Eggs from Chena River in Alaska
- ▶ Tasked to develop three years of brood
- ▶ Started each lot in isolated rearing
- ▶ Skipped 2020 due to COVID

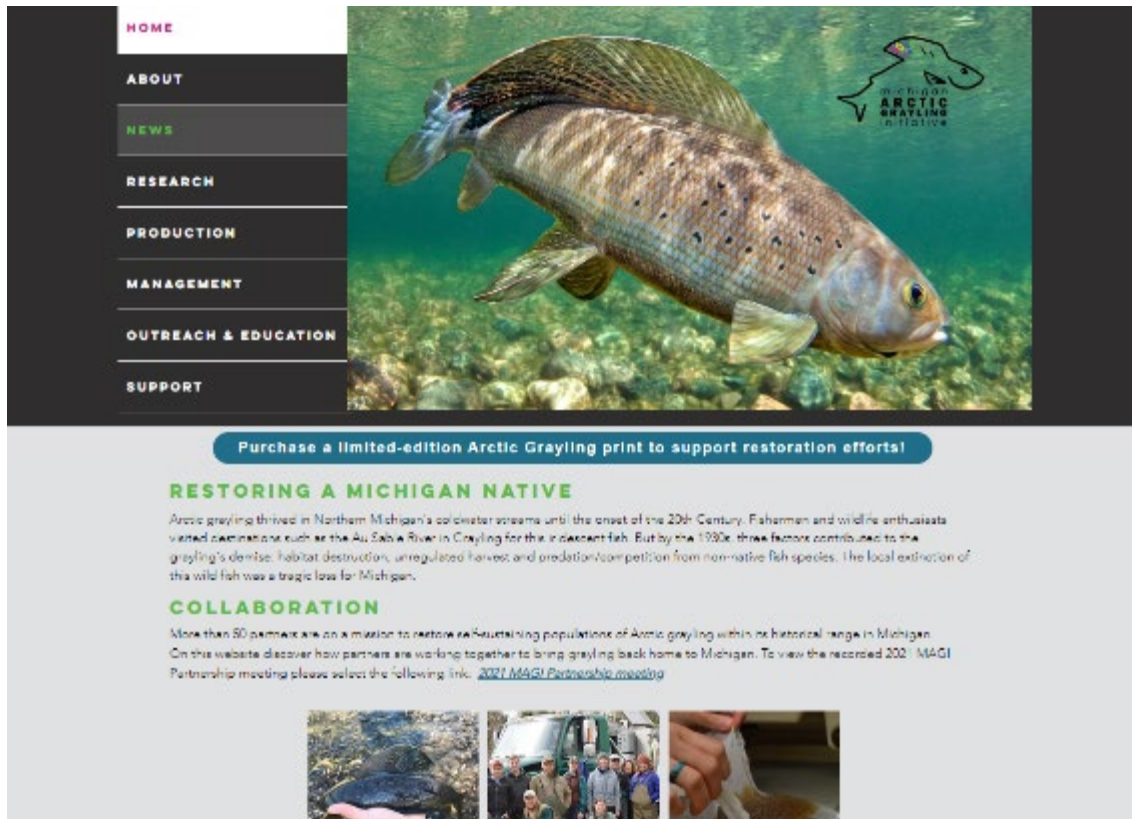


# Michigan Arctic Grayling Initiative - Management Core Group

- ▶ Managing stream nomination process
  - ▶ Must have historically supported grayling population
  - ▶ Must be nominated by local group or government
- ▶ Identified outlets for retired/surplus brood



# Michigan Arctic Grayling Initiative - Outreach and Education Core Group



- ▶ Get public engaged and encourage stewardship
- ▶ Identify collaborative partners and their roles
- ▶ Managing Website - [WWW.MiGrayling.org](http://WWW.MiGrayling.org)
- ▶ May 2025 Celebration!!





# Accomplishments and Milestones

- ▶ Three year-classes of brood stock cleared quarantine rearing
- ▶ FO-252.22 Statewide - Modified so it is no longer illegal to attempt to take Arctic Grayling
- ▶ First year of egg takes completed
- ▶ May 12<sup>th</sup> Celebration of Initiative
- ▶ Approximately 480,000 Eggs stocked in May 2025
  - ▶ North Branch of Manistee River
  - ▶ North Branch of the Boardman River
  - ▶ West Branch of the Maple River



# Incubation Success in 2025!!

- ▶ RSIs and FBIs both performed well in Manistee and Maple
- ▶ Stream side rearing on Boardman-Ottaway



# Stream Side Rearing on Boardman-Ottaway

- ▶ Stocking fish as fingerlings in August and October
- ▶ 500 Five inch + fingerlings being stocked on 10/28
- ▶ PIT Tag receiver array deployed to track downstream movement



# What comes next?

- ▶ Steering Committee will continue to provide direction
- ▶ Monitoring of post-emergence movement
  - ▶ Electrofishing
  - ▶ PIT tags
  - ▶ eDNA
- ▶ Stocking of surplus brood with PIT tags and/or telemetry tags
- ▶ Expecting greater number of eggs for 2026
  - ▶ 2019 Females should be in their prime
  - ▶ 2021 Females will produce eggs



Thank you for your attention.

Questions?

For more info: [www.migrayling.org](http://www.migrayling.org)



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