

## Coldwater Resources Steering Committee Meeting Minutes

June 26, 2023

Jays Sporting Goods, Gaylord

First in-person meeting post-Covid19

**Attendees:** Jay Wesley, Christian LeSage, Scott Heintzelman, Dave Borgeson, Sr., Steven Mondrella, Bill LaBelle, Gary Whelan, Ed Eisch, Seth Herbst, Robb Smith, Jordyn Stoll, Tess Nelkie, Dave Peterson, Mark Johnson, Jim Bos, Dan Sampson, Randy Claramunt, Tom Baird, David Cozad, Justin Tomei, Addie Dutton, Don Wright, Bill Ziegler, Dennis Eade, Mike Verhamme, Jan-Michael Hessenauer, Patrick Hanchin, Cory Kovacs, Lucas Nathan (notes), Troy Zorn (chair, notes)

### Agenda items:

- Welcome from the Fisheries Division chief (Randy Claramunt)
  - Encourage steering committee to continue to provide input (general guidance to all committees)
  - How do we address increasing costs, decreasing anglers (revenue)?
  - Questions
    - About future vision of coldwater fisheries
      - Need to advocate for use— use = funding = additional protection/conservation
    - Climate change and focus on dams and dam removal
      - Division has climate action plan; focus on mitigation
      - Dams are acute problem; related to climate change, but also an independent issue; need to assess what benefits of dam maintenance vs. removal
      - Groundwater management another key issue; many knowledge gaps remain; identified lack of hydrologists on staff
- Update on items from Inland Trout Management Plan (Addie Myers)
  - Trout Committee was founded in 1989; Mgmt plan wrote in 2018; no meetings from 2018-2023
  - Recently revamped committee membership
    - Patrick H=MT Sponsor, Addie=Chair
    - 11 field members, 3 research staff, 4 hatchery staff, 2 Lansing
    - Met in early 2023 and discussed the following topics:
      - Small brook trout in Lower Peninsula streams
      - Eagle Lake rainbow trout broodstock
      - Status and Trends program
      - Riparian vegetation management policy
      - Dams and coldwater species
      - Unit specific presentations
    - “Celebrating successes since 2018”
      - Large scale barrier removals
        - Pucker St dam on Dowagiac River (initially started in 1996!)

- Lake Kathleen dam removal on Maple River
- Ongoing field surveys
  - Persevered through COVID-related issues
  - Using data for multiple research publications
- Partnerships continue to grow; Au Sable Structured Decision Modeling, habitat grants, etc.
- New tools- Stream Evaluator, BNT stocking, Fish Population Trend Viewer
- Au Sable Structured Decision Modeling - Hoping to have framework complete within year and then will be used moving forward in adaptive management
- Michigan Artic Grayling Initiative (reintroduction effort) ongoing
- Discussed areas to focus on moving forward
  - Evaluate stocking efficiencies- achieving management goals? Are all factors being considered? For example, climate change, angler benefits, habitat, other species, etc.
  - Write trout sampling protocols specific for inland trout lakes (smaller brook trout or rainbow trout stocked lakes)
  - Evaluate feasibility and acceptance of simplifying trout fishing regs internally and with partners
  - Focus on invasive species and trout interactions (didymo and New Zealand Mud Snails)
  - Continue dam removals and habitat improvements
  - Determine mechanism to get data from partners appropriately identified in Fisheries Division databases
  - Adapt and/or minimize impacts of climate change; identify knowledge gaps
  - Develop sediment rating curves for streams to inform habitat work
  - Form a workgroup to address riparian management issues
- Questions
  - Climate change- what aspects are of most interest?
    - Mean July temperature
      - Discussions of differences in global temperature averages vs localized impacts to stream temperature
      - Certain areas are more likely to be impacted than others
    - Social aspects also important- setting expectations about future of fisheries
  - Stocking- Question: Will committee be looking into impacts on native fish?
    - Yes, it is of interest; need to identify opportunities to evaluate and capacity to get work done
  - Accountability within management plan
    - Not all items may get addressed due to limited capacity, need for prioritizing efforts

- U.P. trophy brook trout stocking proposal (Mike Verhamme)
  - How do we get more young people in trout fishing?
  - Mike conducted “Self surveys” (i.e., talked to anglers and bait shop owners).  
Came up with new idea to create a trophy fishing system to entice anglers
  - Stock feeder streams with bigger fish 4x per year (x2 spring, x1 summer, x1 fall)
  - Was a historical program that stocked larger fish, but was ended in the 1960’s
    - Would be popular but would dominate hatchery capacity and influence other stocking programs.
    - Attracting anglers to trout angling is a priority; will larger fish accomplish that?
      - Accessibility or other limitations could be a bigger issue
  - Overall support for idea of recruiting new anglers to trout fishing but only 2 of 12 non-DNR CRSC members in attendance supported stocking large trout to achieve that goal.
  - The proposal did not have enough support from the committee to move forward; however, several members were interested in working on ways to attract anglers to trout fishing.
- Didymo update (Lucas Nathan)
  - Provided overview of Didymo, ongoing work, and future priorities
  - Didymo intro
    - Diatom (algae) native to parts of Northern Hemisphere; can bloom and form thick mats under certain conditions.
      - Likely native to parts of Michigan
    - Blooms seem to be associated with low phosphorus, but still many uncertainties about why blooms have been increasing around the world since ~1990’s
    - Documented impacts to macroinvertebrates, but the impacts to fish are currently less clear
    - First MI blooms documented in St. Mary’s River (2015), then in Upper Manistee (2021) and Boardman Rivers (2022)
    - Ongoing work
      - Surveillance for blooms and cells across MI
      - Research to assess bloom dynamics, impacts to fish and macroinvertebrates, and decontamination strategies
    - Outreach remains a high priority
      - Communicate need to clean boots and gear while fishing or doing field work
      - Encourage public reporting of blooms through [Eyes in the Field](#)
- 2022 Steelhead Angler Survey
  - Management goal: provide angling opportunities to a range of user groups who have different ability levels and use different fishing methods to target Steelhead.
  - Management and research efforts
    - Stocking, public engagement and regs, weir and creel, habitat enhancements, stocking and strain evaluations, origin of hatchery and naturalization, Lake MI population models, ongoing research

- Angler engagement: Need to acquire info on angler use and perceptions: angler surveys, attend meetings, workshops, advisory committees, coffee and conversations
- 2022 angler survey
  - Purpose: increase understanding on angler behavior, preferences, and perceptions in inform management
  - Emphasis on acquiring representative information
  - Emailed to 206k licensed anglers, received 4,556 responses
  - Respondents: 84.2% MI residents; 42 U.S. States; 92% males; 58.6% over 50 years old
  - 73% fished for steelhead in MI in the previous 12 months
  - Overall high satisfaction with fisheries, regardless of preferred fishing type (i.e., Great Lakes vs river)
  - Overall satisfied with regulation complexity (simplicity), regardless of preferred fishing type
  - ~80% of anglers prefer to fish in rivers
  - Majority of anglers catching 1-2 fish/trip
  - Most anglers practice select harvest; decision appears to be different by habitat preference (GL anglers harvest more)
  - Within river anglers, those that prefer to fish in naturalized systems (e.g., predominantly non-stocked steelhead populations) tend to do more CIR (less harvest)
- Question/discussion on 1 fish bag limit- some calls to local units expressed disapproval, but the support for regs is high based on the survey.
- Inland Trout Angler Survey highlights (Troy Zorn and Andrew Carlson [MSU])
  - Survey completed in 2014; report completed in 2018 (will be distributed)
  - ITAS objectives
    - Characterize values, opinions, and behaviors of MI inland trout anglers
    - Compare responses among individuals
  - About 83,000 invitations to survey and about 4,000 completed responses to survey
  - ~33% of anglers are trout anglers = estimate of 183,000 total trout anglers
  - Up to 5% of trout anglers are in Trout Unlimited, Angers of the Au Sable, or Federation of Fly Fishers
  - Wide range of experience, averaging 27+ years
  - Most fishing in northern LP; higher proportion of members in northern LP compared to UP
  - Most fish <5 streams per year
  - Aesthetic beauty highest ranked for importance of selecting a stream, followed by chance to catch a brook trout or brown trout. Aesthetic beauty ranked last in the 1980s trout angler survey.
  - Higher percentage of members view catching trophy trout as very important
  - Stock vs wild more important for members; harvest more important for non-members
  - Question about potential bias associated with email survey. Survey link was sent to anglers that provided their email address when purchasing their fishing license.

- Recent inland trout population trends from Michigan DNR Status and Trends Fixed Sites (Jan Hessenauer)
  - Fixed sites provide data for evaluate trout population attributes (i.e., numerical abundance; growth or mean length at age; annual survival) over time and by Fisheries Division management unit (unit). Primary findings occur below:
  - Brook trout
    - Decline in density of 7 inch, 10 inch and 7+ inch across state, with no significant differences among units
    - Increase in mean length at age of 2 and 3 year old brook trout. Brook trout at Central Lake Michigan Management Unit fixed sites tended to be larger at ages 2 and 3.
    - Decline in survival from age 1 to 2, with higher survival for brook trout at fixed sites in the Western Lake Superior Management Unit. No other significant changes.
  - Brown trout
    - No significant trends in any metric. Some differences in annual survival at the management unit level.
  - Data are publicly available online via the Stream Fish Population Trend Viewer.
  - Questions
    - What's happening with Brook Trout? Likely a large-scale change (e.g., warming streams)
    - Are temperature data available? Yes, and analyses are still ongoing.
    - Has the analysis included salmonid community? No, but it is possible.
- Temperature-triggered (hoot owl) fishing regulations for salmonids –An evaluation for Michigan streams (Gary Whelan)
  - Increased hooking and handling mortality associated with future warming could potentially increase stress on trout
  - Literature values for lethal and metabolic activity vary; depends on fish exposure time to temperatures and other factors
  - Survey of all fisheries chiefs in the US in 2022
    - Received 25 responses.
    - 3 states have temperature specific regs- MT, OR, and CO
    - 3 states have or are considering voluntary closures- CO, CA, and NY
    - CT closes portions of three rivers during June 15-Sept 15
    - MT Hoot Owl Regs
      - Closed 2 pm to 12 am
      - 73 F max temp for 3 consecutive days (70 F threshold for bull trout)
      - Criteria based on a few published studies
      - Public is notified online and in press
      - Once implemented, in place until the fall
      - Regs currently under review; uncertain if it is achieving goal
    - OR regs
      - No set criteria- working on statewide policy
      - Once implemented, variable length and no set time to reopen waters for fishing

- CO regs
    - Director's closure
    - Water temp above 71 F, discharge below or equal to 50% and existence of a known stressor event
    - Opened by field or senior biologist
    - Also use voluntary closure to discourage anglers from fishing
  - MI analysis
    - MI streams are generally wade fishable by May, unlike western streams that may not be fishable until mid-July due to high flows
    - Fishing pressure is lower during hot weather periods. Highest shortly after opener and during hex hatch.
    - Using USGS and TU data, 50-80% of streams may be closed (range depending on temperature criteria)
    - MI streams have lower daily temp variation compared to western states
    - Incomplete real time temperature network (~18 USGS temperature gages annually operated)
    - Challenges with multi species fisheries (e.g., trout, walleye, bass)
- Grayling updates
  - Hatchery (Dan Sampson)
    - Year classes held at Oden State Fish Hatchery (SFH) during their first year of life until passing all fish health inspections.
      - Facility provides isolation but not containment. UV treatment was added to help protect from any pathogens/non-natives from entering Michigan waters. It will be used for grayling for 4 more months if 2022 year classes passes remaining health inspections.
    - Status of the three different year classes brought into MI
      - 2022- Oden SFH; healthy and doing well; expected to be transferred to Marquette SFH in October; start to mature in 2026
      - 2021- Marquette SFH; will start to mature in 2025
      - 2019- Marquette SFH ; matured this year; limited but successful spawn; expect full maturity by 2024; hatching seems to be occurring earlier than Alaska; some health issues in early winter (flavobacterium and carnobacterium)
    - Should have limited eggs for stocking in 2025 and full production by 2026
    - Questions
      - What % of Marquette hatchery's allocation for trout production do grayling use? 0%. Grayling are thought to imprint early, so stocking in streams will occur at the egg stage. Grayling do not use any of the trout production raceways and only adult brood are maintained in brood building.
  - Management (Jay Wesley)
    - Potential lakes for surplus broodstock; limited space for adult fish
      - Criteria: public access, two story fishery or cold, 5-50 acres, no inlets or outlets, public support

- Potential lakes are: Cornelia (Gogebic County); West Johns (Alger County); and Penegor, Perrault, and Clear (Houghton County). All are UP lakes, most in western UP.
    - Upcoming proposed reg change; FO 252.2- remove “attempt to take”
  - Research (Troy Zorn)
    - In stream rearing experiments to evaluate simple, floating basket (flow through) incubators (FBIs) as an alternative to traditional Remote Site Incubators. FBIs look like a promising alternative. Sample processing and data analysis is ongoing.
    - Habitat rating system to rate suitability of instream habitat for egg, fry, juvenile and adult life stages. System was developed and article entitled “Rating the Potential Suitability of Habitat in Michigan Stream Reaches for Arctic Grayling” published in 2021 and freely available online.
    - Interactions with resident trout (MDNR project with Michigan State University); smaller fry much more likely to get eaten by brook and brown trout. Age-0 brown trout severely outcompete age-0 grayling in experimental streams. Project is wrapping up this year.
    - Modeling to determine stocking densities needed to exceed expected competition/predation effects of resident trout. Will be updated using info from above project with Michigan State University.
- Q & A on Dave Borgeson’s paper “Effects of reforestation on MI trout streams” (Dave Borgeson, Sr.)
  - Paper (provided with meeting materials) involved comparison of stream width between meadow and reforested reaches. Dave found streams were narrower in meadow reaches.
  - Dave responded to questions. A suggested potential next step was to do additional surveys in Michigan.