

# GREAT LAKES FISH HEALTH COMMITTEE

2016 Summer Meeting  
Red Cliff, WI

August 3-4, 2016

Minutes

Submitted By:

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The data, results, and discussion herein are considered provisional;  
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GREAT LAKES FISHERY COMMISSION  
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Great Lakes Fish Health Committee

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## List of Attendees:

<b>Bridget Baker</b>	Wisconsin Department Natural Resources
<b>John Coll</b>	US Fish and Wildlife Service (Region 5)
<b>John Dettmers</b>	Great lakes Fisheries Commission
<b>Mohamed Faisal (MSU)</b>	Michigan State University
<b>Carrie Hobden (OMNRF)</b>	Ontario Ministry of Natural resources and Forestry
<b>Sunita Khatkar (DFO)</b>	Fisheries and Oceans Canada
<b>Andy Noyes (NYDEC)</b>	New York Department of Environmental Conservation
<b>Dave Meuninck (INDNR)</b>	Indiana Department Natural Resources
<b>Ken Phillips (USFWS)</b>	US Fish and Wildlife Service (Region 3)
<b>Gary Whelan (MIDNR)</b>	Michigan Department Natural Resources
<b>Greg Wright (CORA)</b>	Chippewa-Ottawa Resource Authority
<b>Coja Yamashita (PFBC)</b>	Pennsylvania Fish and Boat Commission

## Other Attendees Included:

Matthew Mitro (WIDNR)	Wisconsin Department Natural Resources
Sara Erickson (USFWS),	US Fish and Wildlife Service (Region 3)

# **Great Lakes Fish Health Committee Meeting**

**Legendary Waters Resort and Casino**  
37600 Onigaming Drive Red Cliff, WI 54814  
August 3-4, 2016

## **Wednesday, August 3<sup>rd</sup> 2016**

<b>8:30 am – 8:40 am</b>	Welcome & Introductions (C. Yamashita)
<b>8:40 am – 9:00 am</b>	CLC update (J. Dettmers)
<b>9:00 am – 10:00 am</b>	Agency Updates (All)
<b>10:00 am – 10:15 am</b>	Break
<b>10:15 am-11:00 am</b>	Agency Updates (All)
<b>11:00 am – 12:00 am</b>	Baitfish and Net pen Culture Update (Whelan, MI DNR)
<b>12:00 am – 1:00 pm</b>	Lunch
<b>1:00 pm – 1:40 pm</b>	WI Gill Lice Update and Discussion (M. Mitro, WIDCNR)
<b>1:40 pm – 2:00 pm</b>	Weird and Unusual Cases
<b>2:00 pm – 2:30 pm</b>	Travel to Northern Aquaculture Demonstration Facility
<b>2:30 pm – 5:00 pm</b>	Tour of Northern Aquaculture Demonstration Facility

## **Thursday, August 4<sup>th</sup>, 2015**

<b>8:00 am – 9:30 am</b>	Next Meeting, (C. Yamashita)
<b>9:30 am -9:45 am</b>	Break
<b>9:45 am – 10:45 am</b>	RA and discussion concerning African Long Fin Eel Import (IN DNR)
<b>10:45 am – 11:45 am</b>	RA and discussion Importation of Sea lampreys from Lake Champlain (Dettmers)
<b>11:45 am - 100 am</b>	Lunch
<b>1:00 pm – 1:30 pm</b>	GLFHC Model Program and RA Review/Modifications

## 1. Welcome and Introductions (C. Yamashita)

Members and Guest were welcomed to the meeting.

## 2. CLC updates (J. Dettmers)

- Proposed MI cage culture operation remains a concern.
- The CLC is planning a coregonid workshop to be held in 2016 and will likely need GLFHC representation.
- Looking to increase coordination between environmental agencies when working on fish habitat projects.
- Ongoing concerns about funding for the USGS Deep Water Science Program

## 3. Agency updates (All)

### Wisconsin

- Nevin Hatchery: Historic radon issues, building de-gassing towers
- Kettle Moraine: Total renovation planned for hatchery.
- Lake Mills Hatchery: Recirculation leads to parasite and columnaris infections, will likely start vaccinating for columnaris.
- Les Voigt Hatchery: Flooding led to *Flavobacteria* and *Chryseobacteria* infections
- Novel Virus isolated from Seeforellen strain Brown Trout. Virus is similar to Cutthroat Trout Virus, publication is pending.
- *Y. ruckerii* isolated from an adult Walleye, detection was not associated with a die-off.

### Minnesota

- Paula Phelps has switched positions and is now in charge of the states coldwater hatcheries, she remains on the GLFHC.
- The Crystal Springs hatchery has been depopulated and will remain empty until repairs are made and may return to raising Brook trout in the future.
- MNDNR and the University of Minnesota have completed a baitfish study looking at the prevalence of several viruses and pathogens in the industry.
  - 84 lots of fish, 46 % had one or more viruses
  - Golden Shiner Virus and Picornavirus most prevalent

### New York

- Rainbow Trout occasionally suffer from *Chryseobacter* infections. Tails of infected fish will turn black similar to Whirling disease. *Flavobacterium psychrophilum* infection will sometimes follow.

- Due to potential decreases in the fitness of Rome strain Brown trout the agency conducting research investigating the potential to cross domesticated Rome strain Brown Trout with feral Brown trout
  - The resulting Hybrids are more susceptible to *Aeromonas salmonicida*.
  - Survival analysis is ongoing.

## Indiana

- Stocking of Chinook Salmon will be eliminated in 2017, considering raising Seeforellen Brown Trout.
- Fawn River SFH will be transitioning from open water source to a 100% well water system. Transition is the result of the current water source being positive for Zebra mussels.
- Bodine SFH has been raising domestic Rainbow Trout for the Inland Program. Fish are disappearing from lakes the agency is looking into potential causes.

## U.S. Fish and Wildlife Service (Region 5)

- The White Sulfur Springs NFH was flooded and suffered significant fish loss, the facility has been depopulated. Facility was responsible for producing the Erwin and Shasta strains Rainbow Trout.
  - Facility biosecurity was compromised.
  - Currently working on disinfecting the facility.
  - Considering starting a Brook trout Brood program.
- Agency will be raising Coregonids for the Great Lakes, the region is looking into building or retrofitting facilities to become isolation and quarantine locations for the program.
- There have been no VHSV detections by the agency in the region this year. Occasional EEDv detection in Lake Trout.
- Due to poor egg development the Allegheny NFH will become a full production facility, Brood will be held and spawned at the Berkshire NFH.

## U.S. Fish and Wildlife Service (Region 3)

- Agency will be raising Coregonid for the Great Lakes; the region is looking into building or retrofitting facilities for the program.
  - Genoa NFH will construct a third quarantine facility.
  - Jordan River NFH- constructed a building over several raceways
    - Install recirculation capabilities for Coregonid production
    - Production will start in 2017
    - Lake Trout production will be replaced with Coregonid production.
- Isaac Standish will be working with the region through the Directors fellowship program.

- Region will be hiring a Veterinarian to assist with the new federal antibiotic regulations.

### **Michigan**

- Nothing significant in hatcheries
- Odd Emerald Shiners mortalities near Lexington
- Reoccurring IPNV detections at the Oden SFH may be linked to placement of IPNV positive fish in the show ponds. Facility has been under quarantine and is supplied by ground water.
- New construction at the Thompson SFH has resulted in a increase in Steelhead Rainbow Trout production.

### **Fisheries and Oceans Canada**

- Atlantic Herring found to be positive for VHSV in Newfoundland.
  - Type IVa
  - Detection will have effect MI Bait Supply, MI will require health certification and importation permits for that species.
- Agency is seeing an increase in Barramundi from Australia; they are working on developing a specific assay for Red Sea Bream Iridovirus.
- Overall agency places a high priority on fish health testing and will be able to hire 3-4 new positions.

### **Ontario**

- Bacterial Gill Disease remains an issue at most facilities.
- *Yersinia ruckerii* detected at North Bay PFH, facility will likely be rebuilt with an emphasis on water supply.
- Four of the nine facilities monitored by the agency are Hudson Bay watershed which is VHSV negative and as a result require stringent testing.
- Agency continues to develop the following programs
  - Intensive walleye culture
  - At risk mussel program

### **Chippewa-Ottawa Resource Authority**

- Facility was able to purchase crop insurance for Walleye production
- Facility was contaminated with minnows from newly constructed duck ponds upstream. Duck ponds are now dry, and fish screen will be installed to protect facility in the future
- Agency will construct a new recirculation facility for Walleye.
- Agency is concerned that fish kills being reported by commercial fisherman are being investigated too late, and we may be missing valuable information.
- Agency is concerned about the Thiamine egg concentration data that has been reported and the lack of current data. Agency presented the current data and there

appears to a declining trend in thiamine concentration. There is concern that if the current trends continue EMS may start to effect wild population of Lake Trout requiring an increase in supplemental stocking by GL Agencies.

- Committee is assigning a sub-committee to draft changes in the committee's research priorities in response to recent issues involving thiamine.
- The committee's concerns will also be brought up at the upcoming Council of Lakes Committee meeting.

## **Pennsylvania**

- Agency is seeing an increase in cases from State hatcheries and Cooperative nurseries. Most likely due to drought conditions and tightening of production numbers.
- Agency has been trying out new strains of Brook Trout to eliminate IPNV from hatcheries, however new strains have been having issues with furunculosis.
- Furunculosis vaccination program in place with varying results.
- New in-channel UV filtration system installed at the Fairview SFH.
- Several *Yersinia ruckerii* detection in wild fish
  - Lake Erie- Burbot
  - Lake Erie - Steelhead
  - Delaware River Drainage- Chain Pickerel

#### **4. MI DNR Invasive pathogens in Michigan's Bait Supply (G. Whelan)** See Appendix 1 for the presentation.

Study evaluated the presence and prevalence of pathogens (VHSV, FHM picornavirus, FHMNv, SVCv, *Heterosporis*) and AIS in the Baitfish Trade in MI. Collected minnows from 78 random bait shops. Tested 90 lots (60 fish per lot). No AIS detected. Pathogens detected included VHSV (emerald shiner), Aquareovirus (golden shiner and fathead minnow), FHMNv (emerald shiner and fathead minnow), and Asian tapeworm. VHSV detected in one bait shop, however there is the potential for multiple facilities to receive diseased fish due to the amount of fish transfers that take place within the industry.

The study is ongoing however current results indicate that the MI Baitfish certification process needs an overhaul, it is very difficult to trace sources of baitfish due to multiple wholesalers and sources. May need to look into increasing sample sizes and consider changing the testing protocols to allow cheaper methodologies.

#### **5. Net Pen Aquaculture Expansion in MI (G. Whelan)**

Private Industry continues to have an interest in net-pen culture in the US waters of the Great Lakes. Questions remain about the technology to be employed and species to be cultured. Effluent/ waste management, escapement and disease are all concerns. Recommendation is against the pursuit of Great Lakes commercial net pen aquaculture: risks are too high environmentally. There are currently two competing proposals in legislature – one to eliminate net pens as an option, one to limit DNR's authority over aquaculture.

6. **WI Gill Lice (*Salmincola edwardsii*) update and discussion (Mathew Mitro)** See Appendix 1 for the presentation.

The study is looking at the decline of Brook Trout and the presence of gill lice and other contributing factors in streams in WI. Study concentrated on Ash Creek, where increasingly high numbers of gill lice have been documented on Brook Trout. The presence of the parasites in combination with warming water temperatures and the expansion of the Brown trout population may be responsible for decreasing populations of Brook Trout. The Study is ongoing and current results have been submitted for publication. Results of the study indicate that gill lice may become an issue in the future and agencies should be aware of their presence in waterways where changing environmental conditions may not be favorable to Brook Trout populations.

#### 7. **Weird and Unusual Cases**

- **PFBC Mites on Fish-** Mites were observed on Brook Trout in a Cooperative Nursery, the mites do not seem to be causing mortality however the agency is trying to get them identified and determine the source of the infestation.
- **WIDNR – Smallmouth Bass in Green Bay with Skin Lesions.** 1-15 % of the population. No abnormal bacteriology. May be *Piscirickettsia* like with secondary bacterial infection.

#### 8. **Tour of Northern Aquaculture Demonstration Facility.**

- Committee members toured the University of Wisconsin-Stevens Point Northern Aquaculture Demonstration Facility.

#### 9. **Next meeting and Technical Advisors**

- **2016 Winter Meeting** - April 2<sup>nd</sup>-3<sup>rd</sup> , Michigan State University in conjunction with the annual American fisheries Society Fish health Section meeting followed by the 2017 Eastern Fish Health Workshop.
- **Technical Advisors** – Ann Gannam and Wendy Sealey have agreed to be technical advisors to the committee, they come highly recommended and specialize in nutrition.

#### 10. **RA Discussion concerning African Long Fin Eel Imports.**

Committee was informed that the importation in question is not going to take place so there was no discussion.

#### 11. **RA Discussion Concerning the Importation of Sea lampreys from Lake Champlain.**

Due to a decline in numbers there is a limited supply of Sea Lampreys available for educational purposes. Committee was asked to run a Risk assessment on importing Sea Lampreys into the Great Lakes to be held at facilities and used for education. The Committee concluded that the case was not suitable for a formal risk assessment due to

the lack of pathogens associated with Sea Lampreys, The committee did make the following recommendations.

- If possible fish should be obtained from within the basin; Sea lampreys are still observed by commercial fisherman.
- Agencies should try to work with commercial fisherman or other in basin sources first to obtain the fish.
- A small supply of fish should be held in containment at the USGS Hammond Bay facility and euthanized after the educational events

## **12. GLFHC Model Program and RA Review and Modifications.**

### **Model Program**

- No changes were recommended to the model program, however results from ongoing baitfish studies in MI and MN may result in the need to change sampling protocols if the fish are in a Hatchery, Wild or Baitfish.

### **Risk Assessment**

- Should the RA address a single pathogen at a time? The committee will look into this in the future after more cases have been run through the RA.
- The USFWS are developing a new RA, the Committee may want to adopt portion or the whole RA when completed.

## **13 Other Topics Discussed**

### **Basin-Wide Wild Fish Health Monitoring Program**

- Committee would like to develop a monitoring program that includes sites from around the basin. Such a program could work in conjunction with USFWS programs. Topic will be discussed at future committee meetings.

### **Coast Guard may regulate ballast discharge**

- Bill in congress to remove state authority, committee is concerned this may enhance the spread of pathogens.

### **New FDA regulations on the use of Antibiotics in Aquaculture**

- All Antibiotics will need a VFD, may not be able to top dress medicated feed at hatcheries. Committee members will distribute information as it becomes available.