

Lateral Lines

President Message:

Happy Spring to my fellow IN AFS members! I hope you are all staying as warm and dry as possible, although as biologists, I know that is not always easy an easy task. While the majority of folks grumble about the cold, snowy spring we have been experiencing while delaying their adventurous exploits to the screened-in porch, many of you have already been out in your boats and waders, breaking the ice and collecting fish and data. Kudos to all of you, keep up the great work!

I would like to thank everyone who helped put on a great joint conference with IN AFS and IN TWS in Lafayette back in February, including all of you who attended to truly make it a success. I thoroughly enjoyed hearing from all of our fantastic presenters at the cozy facilities of the Cary Camp Scout Center and having a few cold ones with friends, old and new, in the vintage Lafayette Theater. Thank you to all the students who took center stage (literally) for the poster session to share the excellent research they are conducting, and a huge thanks to our volunteer judges. I also can't go without thanking our conference sponsors, Duke Energy, Aquatic Control, and Commonwealth Biomonitoring for their generous donations! Last but not least, congratulations to Rob Ackerson, who was elected as the incoming IN AFS Vice-President!

Before we know it, we will be gathering again for our fall business meeting. As we begin planning for our next meeting, we want to hear from you on what kind of continuing education opportunities you might like to participate in. Please reach out to Steve Andrews (Continuing Ed Chair) and propose your ideas at steven.andrews@navy.mil. Once we have some feedback, I will put out a poll to membership.

I wish everyone an enjoyable and productive field season. Please continue to update us with your survey, fish rearing, and research highlights and pictures (email to dholloway@msdeng.com) and we will make sure they get posted to our IN AFS Facebook page.

Thanks for the opportunity to be your president,
Ben Miller



News

Current Officers

President:

Ben Miller

President Elect:

Drew Holloway

Vice President:

Daniel Arndt

Past President

Reuben Goforth

Secretary/

Treasurer:

Bri Ciara

Newsletter Editor:

Tom Bacula

Visit us at:

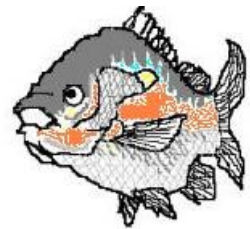
www.indianaafs.org

&

Facebook



Thank you



*Commonwealth
Biomonitoring*



Mark your Calendar

**Fish with a Fishhead Day
at Indiana State Fair Fishing Pond 8-18-18**



Secretary Report — Bri Ciara

2018 IAFS Spring Business Meeting Minutes
Cary Camp
Lafayette, IN
February 13, 2018

Call To Order

The meeting was called to order at 10:38 am by Ben Miller.

Establish Quorum

The Secretary confirmed that there was a quorum to conduct business. There were 26 paid members in attendance, 16 Parent Society members.

Agenda Editions/Deletions

None.

New Members/Guests

Matt Horsely, new Division of Fish and Wildlife (DFW) Assistant Fisheries Management Biologist for District 2, introduced himself.

Brittney Hosler, a freshman at Ball State University studying Fisheries, introduced herself.

Steven Gratz, new DFW Assistant North Fisheries Research Biologist, introduced himself.

Matt Rayl, from the private company Pond and Lake Management, introduced himself. He is formerly a member of Florida and Texas State Chapters and this was his first meeting for the Indiana Chapter.

Ben Miller encouraged official membership. Those interested in becoming one should contact Bri Ciara at Bci-ara@dnr.in.gov.

Secretary's Report – Bri Ciara

Bri Ciara stated that we currently have 58 chapter members, 44 of which are Parent Society members. There are several benefits to being a parent Society member and anyone interested should sign up on the website or see her. Meeting minutes from the past Fall and Spring meetings have been posted online. No edits had been received. Sandy Clark-Kolaks made a motion to accept the minutes posted to the website. Mark Pyron seconded the motion. The Spring and Fall 2017 meeting minutes were approved.

Treasurer's Report – Bri Ciara

The treasurer's report was passed out. See Attachment 1 for the report. Ben Miller prefaced discussion with an explanation that the 2017 joint Spring meeting with Ohio Chapter American Fisheries Society (AFS) was a successful meeting with lots of amenities and discounted student registration costs to boost student attendance. This resulted in a net monetary loss for the meeting; however, EXCOM felt that the high student participation was worth it. Bri explained that the current 2018 meeting was planned very cost effectively and should hopefully rebuild some of our account balances. EXCOM and the Sponsors were thanked for their contributions and creative planning to provide a good, cost effective meeting.

Daniel Arndt asked how our investments through the Parent Chapter were doing. Bri commented that she has not received any communication from the Parent Chapter regarding our investment. Sandy Clark-Kolaks explained that the Parent chapter recently sent out a survey to all Division chapters on how they prefer to be communicated with and how often they would like to have the funds available. Sandy said that the Divisions unanimously responded that they would just like any communication period. She is hopeful that we can expect communication coming from the Parent Chapter in the way of quarterly statements or something similar.

Secretary Report — Bri Ciara

Ben Miller opened the floor for questions regarding the Treasurer's Report and there were none. Mark Pyron made a motion to accept the report. Sandy Clark-Kolaks seconded the report. The Treasurer's Report was accepted as written.

Committee Reports

Standing Committees

Awards - Rob Ackerson

Rob Ackerson asked that judging forms be submitted to him following the meeting. Results will be posted in the spring newsletter. If any of the students would like to see their judging sheets, they should email Rob at RAckerson@dnr.in.gov. Rob was thanked for his continued service to the Chapter by organizing the judging and awards for the past several years.

Programs – Ben Miller

Ben Miller stated there was no report.

Membership – Ben Miller and Bri Ciara

Bri Ciara and Ben Miller stated a current membership of 58 members, 44 Parent Society members. Those wishing to become new members or pay dues should see Bri Ciara. Drew Holloway asked about an incentive through the Parent Society that if 80% or more of our State Chapter members are also Parent Society members we could be entitled to a monetary kick-back. EXCOM will look into it.

Nominations – Mark Pyron

Mark Pyron stated there were no nominations. Anyone with nomination should send them to Mark at mpyron@bsu.edu.

Resolutions – Dan Carnahan

Dan Carnahan was not able to attend. Ben Miller stated there were no new resolutions.

Communications

Recovering America's Wildlife Act (RAWA) – Ben Miller

Ben Miller stated that at the last National AFS meeting they discussed new proposed legislation for Fish and Wildlife called Recovering America's Wildlife Act. Several webinars have been held through the Parent Society so far to educate chapters on how they can participate and encourage grassroots support. The RAWA was originally through of by the Blue Ribbon Panel, panel of leading scientists from many agencies and organizations to research funding deficiencies and solutions to fund conservation. The RAWA is one potential solution they formed to help combat the conservation funding issue across the United States. It is a bipartisan bill, H.R. 4647, introduced to the House of Representatives in December 2017 sponsored by Nebraska Congressman (R) Jeff Fortenberry and Michigan Congresswoman (D) Debbie Dingell. Ben stressed that AFS and The Wildlife Society (TWS) support is critical. If passed, the Act could greatly increase the State's funding (up to \$22 million additional dollars) for species of greatest conservation need. This additional funding would require a \$6 million dollar match. National AFS is encouraging State Chapters and other organizations to support this bill. Ben explained some things individuals could do which included: calling your State representative, sign a letter of support, typical grassroots movement activities, and attend a webinar regarding what we could do as a Chapter to help further support this piece of legislation. Ben will send out an email regarding the webinar. It is scheduled for Feb. 22, 2018 at 1pm.

Secretary Report — Bri Ciara

Ben proposed our Indiana Chapter to sign a letter of support. He suggested that supporting this bill through the channel of AFS that we, as individuals, could avoid the political implications and employment conflicts easier. Ben made a motion to draft an Indiana Chapter AFS letter of support for RAWA. Bri Ciara also stated support for moving forward since the Parent Society has already pre-written letters of support and documents pre-drafted to make it easy for State Chapters. Mark Pyron asked what passing the resolution would look like and Ben explained that it would include drafting a letter of support as well as promoting the bill on our social media outlets. A question was asked about the source of funding for this bill. It was explained that the source of funding would come from a tax on off-shore oil and gas drilling revenues that would then be apportioned to States based on land area, population, and other factors. A question was asked if southern states' might not support the bill because they might not want any off-shore drilling and then propose a different resolution. There was not much information on what all southern states have decided as of yet. Steven Gratz stated that if you are a parent Society member that you can access all of the AFS (past included) webinars via the website. They can be downloaded.

The membership voted to support a resolution for the RAWA. Ben and Dan Carnahan will work together to get it drafted.

Newsletter – Tom Bacula

Tom Bacula has accepted the role of Newsletter Editor and Chief. He thanked Sandy Clark-Kolaks for her previous editor role and organization overhaul of the newsletter and the membership for their submissions. He will publish the newsletter every April, August, and December. Submissions for the coming newsletter will be due March 21, 2018 and should be submitted to Tom at TBacula@dnr.in.gov. All content, especially All in a Day's Work and pictures, is highly encouraged. Contact Tom with any suggestions, comments, or ideas.

Website – Nick Haurert

Nick Haurert reported no issues and smooth maintenance of the IAFS website. If anyone has anything they'd like posted or has any ideas, comments, or issues please send them to Nick and NHaurert@dnr.in.gov.

Social Media – Drew Holloway

Drew Holloway gave an update on the IAFS Facebook page – it is doing great. He reminded people to remain active and posting photos, cool news stories, and interesting articles/research. Sandy Clark-Kolaks and Drew announced that Indiana again won the best Small Chapter Award from the North Central Division (NCD) and National Chapter. Drew is looking for a replacement to take over the social media role. Those interested should contact Drew at DHolloway@msdend.com.

Ad hoc Committees

Continuing Education – Steve Andrews

Steve Andrews introduced himself to new members and thanked those that helped plan the trawling workshop as the continuing education workshop for the day. Workshop pictures and review was posted in the last newsletter. If anyone has any ideas or suggestions for future continuing education workshops, please contact Steve at Steven.Andrews@navy.mil.

Certification – Megan Gunn

Megan Gunn stated there is no new report. For further information on becoming a Certified Fisheries Professional, please contact Megan at MLGunn@purdue.edu.

Secretary Report — Bri Ciara

Legislative Communications – Bob Robertson

Bob Robertson was not in attendance. Max Henschen explained that he met with Bob and that he would like to step down from the Legislative Communications Ad hoc Committee Chair. Those interested in this position should contact Ben Miller at BMiller@dnr.in.gov.

History and Archives – Mark Pyron

Mark Pyron stated there was no report. Everything is available online.

Outreach – Clint Kowalik

Clint Kowalik promoted AFS at a Master Naturalists class at Eagle Creek and encouraged others to continue to promote fisheries and who we are when possible. Master Naturalists provide a good stage for communicating our message. Those interested in talking to them should contact Clint at CKowalik@dnr.in.gov.

He also promoted AFS to the Ball State Student Sub-unit while participating in their annual White River Fishing Trip that included several Facebook-Live feeds which promoted the river, AFS, and Ball State AFS. He offered Ball State the chance to run the first day of this annual shoreline fishing trip next year and other student sub-units to host something similar.

Clint has been working with Ball State AFS and Bass Fishing Club for a Bring a Friend Fishing event the first free fishing weekend April 21, 2018 at prairie Creek Reservoir. He has also been working with Purdue to hold a crew Captain Workshop at the Purdue Aquaculture Facility April 12 or 14, 2018. This will provide a certified education opportunity and new volunteers for the INGoFishIN program.

Fish with a Fish Head Day at the Indiana State Fair will be Saturday August 18, 2018 from 4:30-7:30pm. This will be Clint's 10th year running the operation.

Technical Committees

Rivers and Streams

Kayla Werbianskyj stated no new report. She will be attending a Rivers and Streams Technical Committee meeting in late March. She thanked those that have proved updates so far and encouraged people to still submit material to her at KWerbian@idem.in.gov.

Centrarchid – Kevin Gaston

Kevin Gaston reported there is no new report. Those with centrarchid work going on should submit information to Kevin at KGaston@idem.in.gov for the technical Committee meeting in July.

Esocid – Nick Haurert

Nick Haurert reported there is no new report. Anyone with information or updates to submit should send them to Nick at NHaurert@dnr.in.gov.

Walleye – Corey DeBoom

No report. Corey DeBoom volunteered to Chair the Walleye Technical Committee. Please send any updates or information to him at CDeboom@dnr.in.gov.

Ictalurid – Craig Jansen

Craig Jansen was not in attendance. No new report.

Secretary Report — Bri Ciara

Reservoirs – Sandy Clark-Kolaks

Sandy Clark-Kolaks reported that the Reservoir Technical Committee held a symposium at the Midwest meeting regarding standard sampling procedures. The AFS Standard Sampling Book will be revised soon, in a few years. It appears that many states are conducting similar work and surveys. She mentioned that a few states are actually looking to build a few new reservoirs modeled as “smarter reservoirs” that minimize problems like sedimentation and other things resulting from the older ones.

For more opportunities for involvement, volunteer work, information, etc. please contact Sandy at SClark-Kolaks@dnr.in.gov.

Student Subunit Reports

Ball State

Ryan Seymour, President of the Ball State Student Sub-Unit, presented their activities. They attended the Midwest Fish and Wildlife Conference where they were able to bring 6 members. They won the most active student sub-unit award for NCD. They are planning a White River Clean-Up and Bring a Friend Fishing Day with Clint Kowalik. They are also hoping to plan an electrofishing sampling event with the University president in attendance in the fall. Many students are still seeking internships so professionals, please send information to Ryan at rdseymour@bsu.edu.

Purdue

The Purdue Student Sub-unit was not in attendance, no new report.

Manchester

No report. It was noted that the Manchester student sub-unit has been absent for the past several meetings and has not submitted any materials for newsletters. It was suggested that someone reach out to Dr. Jerry Sweeten regarding their status.

Indiana University

No report. IU Student Sub-Unit is still in the forming stages and was not able to attend the meeting.

Unfinished Business

Procedures Manual – Benjamin Miller

Still ongoing edits.

New Business

NCD Update – Mark Pyron

Mark Pyron reported that Doug Austin and Steve Miller presented the benefits of becoming a National member. The Annual Meeting will be in Atlantic City, New Jersey August 19-23, 2018. Beach hotel costs are under \$100, so attendance is highly encouraged. Mark mentioned that the Parent Society was supporting several legislative actions of which you can find more about on the website.

The Standard Methods Protocol textbook will be rewritten soon. Webinars are becoming more popular and are available to members in online archive. See the website for details. As members we also have free access to hold conference calls and the ability host webinars through the website. National leadership would like member to think about what they want from AFS and what they would like to see in the future.

Secretary Report — Bri Ciara

Mark Pyron is the current NCD president and Sandy Clark-Kolaks is the past president. If you have any interest in getting more involved please contact them.

3rd International Catfish Symposium Sponsorship – Craig Jansen

Craig Jansen was not in attendance. Ben Miller shared that Craig was asked to request Indiana Chapter AFS to sponsor the 3rd International Catfish Symposium in 2020 in Little Rock Arkansas. NCD has agreed to sponsor \$5000. Mark Pyron stated that NCD discussed sponsorship at their last meeting and it has been suggested that the Symposium does not actually need any more money and is expected to actually make a profit. Sandy Clark-Kolaks explained their meeting is one day before the Annual meeting and they might not be likely to expect many costs. EXCOM will discuss a smaller, less than \$250, sponsorship just to provide in good faith. Sandy also mentioned that Ohio will likely be seeking sponsorship funds for the upcoming National meeting they will be hosting in 2020.

Nominations/Election of New Officers – Ben Miller

Ben Miller stated that Bri Ciara has agreed to continue as Secretary/treasurer for another year unless anyone else is interested in the position. No voting occurred.

Kevin Gaston and Rob Ackerson agreed to run for Vice President. No other nomination were received. They both provided their biographies and what they would hope to accomplish as President.

Members voted via ballots. Rob Ackerson was voted in as the new Vice President.

State Fish

Drew Holloway spoke on the idea of having a State Fish again. He could organize “political style” campaign presentations for State Fish at the Fall Business meeting. This could be a good avenue to promote AFS and fisheries to the public. Ideas should be sent to Drew.

AFS Directory Update

Ben explained the idea of the membership directory to help better connect our members. He has 15 submissions and encouraged everyone to submit their bio and contact information.

Spring 2019 Meeting Ideas – Bri Ciara

Bri suggested the idea of a joint meeting with Indiana Lake Management Society (ILMS) for next Spring. ILMS is comprised of many private lake, pond, and aquatic plant management companies as well as universities, citizens, Lake Association groups, and others and might be a good partner to share our message with. Mark Pyron shared that the last meeting was not very productive because each organization had concurrent sessions that hindered interaction. He suggested that designing sessions differently in the future to allow for better “cross-pollination”. Ben also brought up that Tomas Hook proposed having a joint meeting with Illinois AFS for 2019. Kayla Werbianskyj will email Bri contact info for ILMS. EXCOM will discuss possibilities and might send out poll to membership.

Other

Steven Gratz promoted serving on a National Society committee. Information can be found on the website.

Adjourn

No more new business and a motion to adjourn was made and seconded at 11:40 pm.

Secretary/Treasurer Report— Bri Ciara

Attachment 1: IAFS Treasurer's Report

Indiana Chapter of the American Fisheries Society			
Financial Report			
For the Period 10/17/2017 - 2/12/2018			
INCOME		DISBURSEMENTS	
Dues, registration fees, grants, and miscellaneous		Operating expenses, contributions, gifts, donations, and miscellaneous	
Spring meeting reimbursement from Ohio AFS	\$ 552.92	Hostgator Annual Website Fee	\$ 218.40
Member Dues	\$ 114.10	Payment for Spring Meeting Venues	\$ 1,600.00
Sponsorship from Aquatic Control, Duke Energy, and Commonwealth Biomonitoring	\$ 1,968.70	Virtual Terminal PayPal Fee	\$ 30.00
		Fall meeting (venue & rooms for workshop hosts)	\$ 368.40
TOTAL Income	\$ 2,635.72	TOTAL Disbursements	\$ 2,216.80
Assets as of: 10/17/2017		Assets as of: 2/12/201	
Checking 1084	\$ 5,572.52	Checking 1084	\$ 6,045.74
PayPal	\$ 219.41	PayPal	\$ 165.11
Investment	\$ 10,000.00	Investment	\$ 10,000.00
Prepared by Brianna Ciara IAFS Treasurer 2/12/2018			

Chapter News

Awards Committee—Rob Ackerson

Hearty thanks go out to all who presented talks and posters at our recent meeting. I am sure that all those who attended our meeting feel as I do, that all of the contributions are appreciated.

I would like to point out that **all** Presentations and Posters were very close. If any of the presenters/poster participants would like to know any of the remarks/comments (if any) they can contact me (for future improvements).

Awards will be presented at the Fall AFS meeting

Best Professional Paper:

Dr. Mark Pyron—Long-term Fish Assemblages of the Ohio River: Modified Trophic and Life History Strategies with Hydrologic Alterations and Landuse Modifications

Best Student Paper:

Morgan Sparks—Predicting Developmental Phenology in Wild Populations: a Case Study with Western Alaska Sockeye Salmon

Best Student Poster:

Jeff Robbins—Age Distribution of Yellow Perch *Perca flavescens* in the Indiana Portion of Lake Michigan

A big thank you goes to all our judges:

Andy Bueltmann	Drew Holloway	Kevin Gaston	Tom Bacula
Daragh Deegan	Laura Bowley	Kayla Werbianski	Stacy Orłowski
Briana Ciara	Sandy Clark-Kolaks	Daniel Arndt	Nick Abell
Dan Roth	Dan Wessel	Rob Ackerson	Brian Kalb

I apologize if I missed anyone who judged or misspelled their name

*The Best Student paper and poster will be awarded at the fall meeting and will receive a certificate. Best Professional paper will be the same as in the past.

** I would also like to note that I would like to see more students/professionals get involved in the judging. This can be a great way to be involved in the chapter and also provide some learning experience.

Rob Ackerson
IAFS Awards Chair
Phone: (219)369-9591
rackerson@dnr.in.gov

Newsletter Editor—Tom Bacula

Thank you to all who submitted information to the newsletter, it makes compiling easy with content and I don't have to pest you. Next newsletter should be coming out in August with submission deadlines in late July.

Continuing Education—Steve Andrews

Send any ideas for Continuing Education workshop ideas to Steve.

Steve Andrews
steven.andrews@navy.mil
(812) 854-6656

Chapter News

2018 NCD AFS River & Streams Technical Committee Meeting Summary

Compiled by: Kayla Werbianskyj

I was excited to be able to attend the Annual Rivers and Streams Technical Committee Meeting in March (special thanks to IDEM for allowing me to attend)! The meeting is held in Rock Island, Illinois – a city that is part of the “Quad Cities” area on the Iowa/Illinois border. It truly is a neat area and it’s only about a 5/5.5 hour trip if you want a weekend getaway...

All the presentations were delivered very well and everyone I met was super nice, all giving me (the newbie) a warm welcome. Each year for the social there is a Flathead Catfish fry—and this year was no exception. I had never tried Flathead Catfish before but it was definitely delicious. Below you will find my notes from most of the presentations. Please excuse the poor quality of pictures...they were from my phone and I thought it would be nice to have visual imagery from some of the talks.

Iowa’s Freshwater Mussels: Successes and Challenges

Jen Kurth, Iowa DNR

The beginning of this program began with Frest in 1984 with 117 sites sampled across Iowa. In 1999, Iowa State University (ISU) resampled as many of the historical sites as possible and added 82 more sites based on modeling of best habitat. In 2006, 24 stream segments were impaired due to approximately a 50% decline of freshwater mussels.

From 2011-2017, J. Kurth began sampling to gather a statewide distribution of freshwater mussels in Iowa. There were ~800 sites sampled, 39 species identified, and over 3500 individuals. Slippershell (*Alasmidonta viridis*) (state endangered and last seen alive in 1984) was found during this survey. Twelve of the 24 impaired stream segments were delisted following the statewide survey.

Buffalo Creek Project

The primary goal of this project was to reduce heavy sediment loading. Fourteen sites were sampled in 1984 (qualitative surveys) and 1998 (quantitative surveys) – problem with comparison of data due to the difference in sampling methods played a part in the creation of the Iowa Freshwater Mussel IBI. Following the 1998 survey it was determined that there was a 50 percent decline in both total mussel populations and species richness. Due to the notable decline, five stream segments in Buffalo Creek were listed as impaired. From 2010-2013, multiple conservation practices were implemented and a 2013 FW mussel survey showed that populations had rebounded, triggering the removal of all five segments from the state 303(d) impaired waters list.

Table 1. Iowa Freshwater Mussel Index of Biotic Integrity metrics

Number of Species	Tolerance of known fish host species
Relative abundance of Threatened and Endangered	Shannon-Weiner Diversity Index
Catch Per Unit Effort	Reproduction Factor
Percent of top three species	Percent dominant life history strategies (as evenness)

The framework for the creation of Iowa’s FW Mussel IBI is for it to be used as a guideline for restoration and protection of mussels, not to be used to add further impairments. A major success for Iowa is that

Rivers and Streams Meeting Notes

Creeper (*Strophitus undulates*), also known as Strange Floater in Iowa, could be delisted following the next rulemaking process.

Overview of Genoa National Fish Hatchery's Mussel Propagation Program Megan Bradley, USFWS, Wisconsin

The hatchery has expanded to Pistolgrip (*Tritogonia verrucosa*) and Winged Mapleleaf (*Quadrula fragosa*) mussel rearing and propagation, both of which have very small windows of reproduction and therefore, are harder to propagate.

Genoa Hatchery has implemented a new heated pan system, which is preliminary showing that some species are growing bigger than with the historical outdoor system.

They are in the initial testing staged for using a Pulsed Flow/Beaker system for the Winged Mapleleaf (*Quadrula fragosa*). This system provides water and food exchange every hour.

Spectaclecase (*Cumberlandia monodonta*) thrives in their sediment tanks, which utilize gentle aeration with silt and algae and weekly water exchange. The mussels are fed twice daily.

The streamside rearing which provides natural food and temperatures is used to propagate Salamander Mussel (*Simpsonaias ambigua*) and Washboard (*Megaloniaias nervosa*).

The hatchery started implementing Mudpuppy rearing for the Salamander Mussel (*Simpsonaias ambigua*) propagation. Last year, 2017, was the best year yet for Salamander Mussels, recovering 2,175 (~70%) sub-adults in October. Interestingly, it was noticed that they latch onto the gills *and* tissue of Mudpuppies.

Other systems in utilization are suspended upstream well systems and river cages.

Last year, ~ 2 million Higgins Eye Pearlymussel (*Lampsilis higginsii*), a Federally Endangered species, were released. Interesting fact: Higgins Eye Pearlymussel is a species that was included on the first list of invertebrate species to gain federal protection in 1976.

Exciting: In the summer of 2017, the ever elusive host fish species for the Spectaclecase (*Cumberlandia monodonta*) was finally confirmed to be Mooneye (*Hiodon tergisus*) and Goldeye (*Hiodon alosoides*) through [a small study out of Minnesota](#).

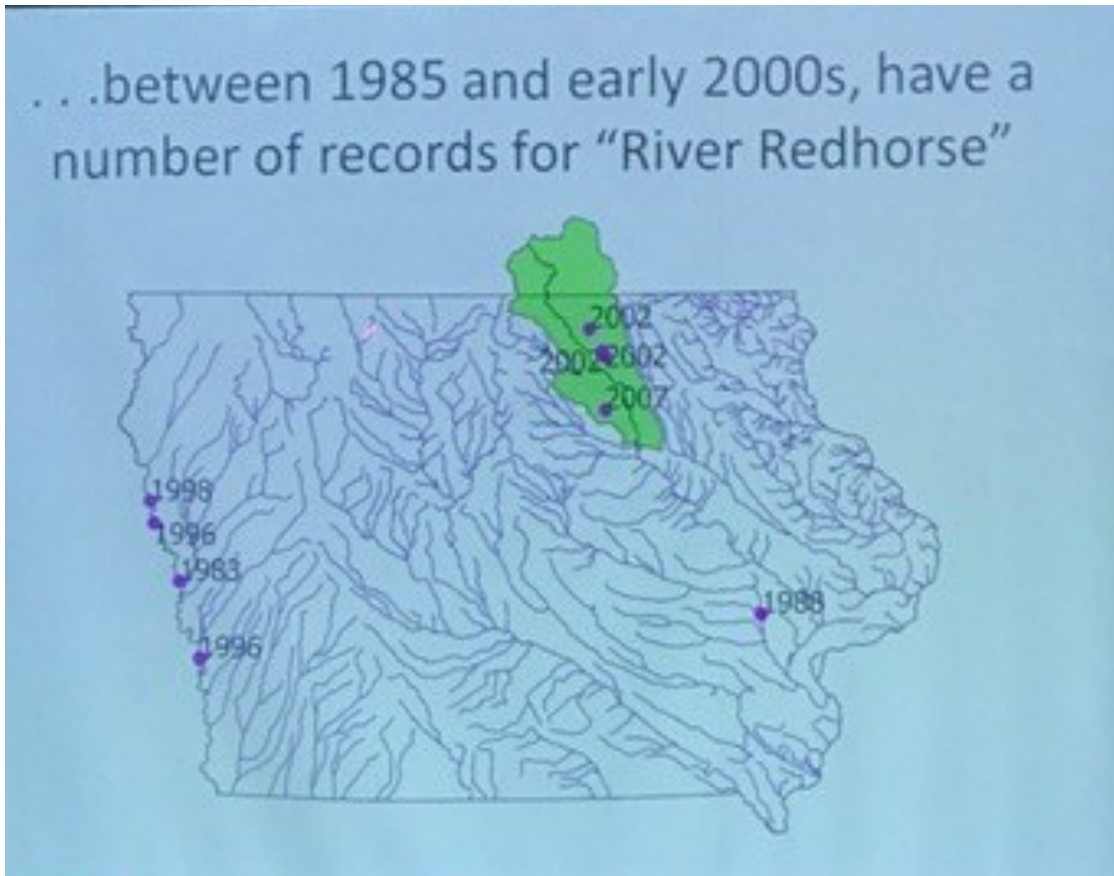
Probable Discovery of Greater Redhorse in Iowa John Olson, retired Iowa DNR

Status as of 1985 for interior Iowa: Greater Redhorse (*Moxostoma valenciennesi*) has never been collected but for River Redhorse (*Moxostoma carinatum*) there is limited knowledge and records; both are recorded in the Mississippi River bordering Iowa but declining (Harlan et. Al 1987); and neither are state listed.

In the 2014 revision of Fishes of Iowa there was a possible specimen, photos were sent to Robert Jenkins at Roanoke College (wrote 1978 Dissertation Systematic Studies of Catostomid Fish Tribe Moxostomatini) – determined River Redhorse. In 2017, presumed River Redhorse specimen from Shell Rock River near Greene, IA. So, crew went to sample the same site and seemed to have two red-tailed redhorse of different species. Jenkins confirmed they seem to be different August 2017, follow-up

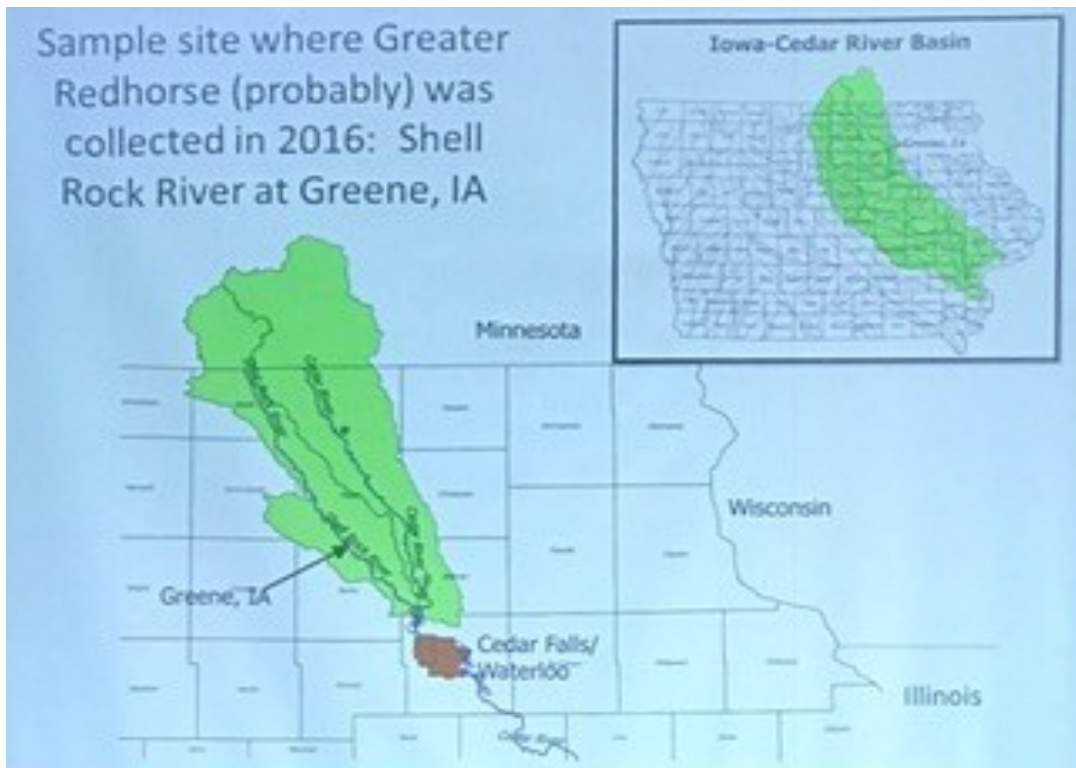
Rivers and Streams Meeting Notes

sampling was needed. Follow-up sampling was conducted in September 2017, waiting on pharyngeal teeth results from lab in Wisconsin – expected mid-2018.



Picture: Historical records for individual identified as River Redhorse

Rivers and Streams Meeting Notes









Picture: Area where potential Greater Redhorse specimen was collected



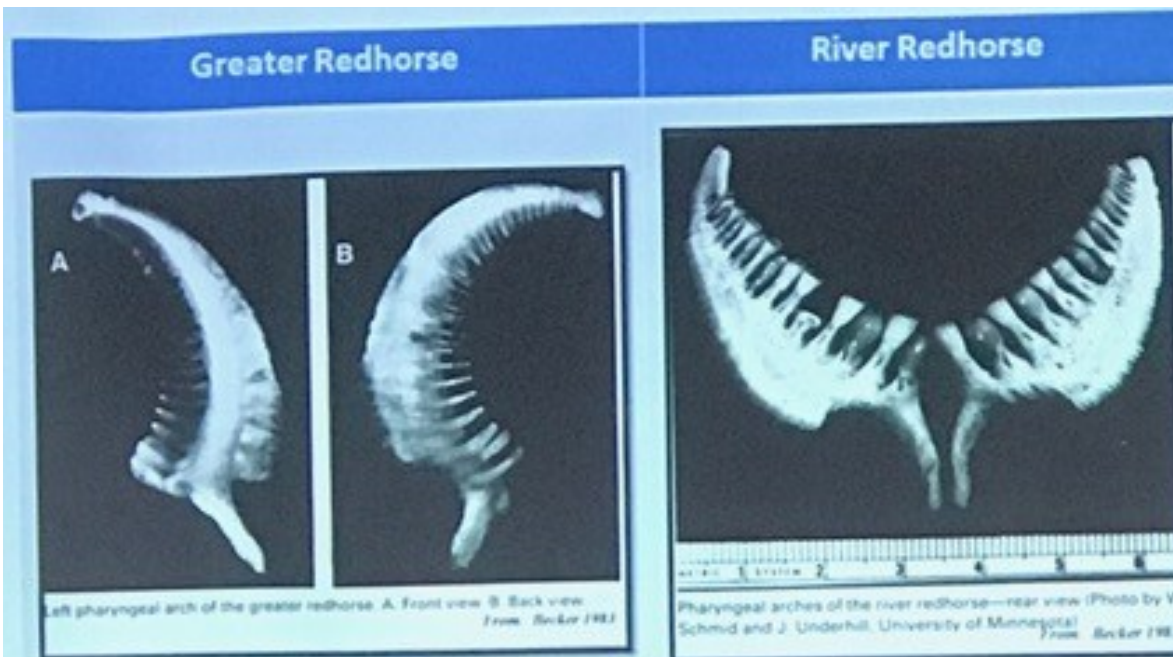
Picture: Image of potential Greater Redhorse collected in Shell Rock River, Iowa

Rivers and Streams Meeting Notes

(Photos from redhorses collected at Shell Rock R., Greene, IA, on Sept. 21, 2017)

Distinguishing Characters	Greater Redhorse?	River Redhorse?
Dorsal fin <u>Greater:</u> sl. convex <u>River:</u> sl. concave		
Mouth: <u>Greater:</u> thinner upper lip <u>River:</u> thicker upper & lower lips		
Caudal Peduncle: <u>Greater:</u> 15-16 scale rows <u>River:</u> 12-13 scale rows		

Picture: Distinguishing characteristics between Greater Redhorse and River Redhorse



Picture: Difference between the pharyngeal teeth of Greater Redhorse and River Redhorse

Rivers and Streams Meeting Notes

Rapid Expansion of the Banded Killifish across Northern Illinois

Jeremy Tiemann, Illinois Natural History Survey

Historically, Banded Killifish was found in the kettle lakes of Northern Illinois. A previous genetic study showed a 2% divergence between subspecies of Eastern and Western Banded Killifish. A notable decline was noticed from 1979-1990 and from 1990-2000 it was only found in the extreme northeast of Illinois and Lake Michigan. The decline was attributed to a reduction of aquatic vegetation and pollution, channelization and siltation from the rise of suburbia. It was state listed in 1989; conservation of species was implemented at Sanctuary Pond. The re-emergence of the Banded Killifish began in 2000-2009 with records in the Illinois River and by 2012 it had expanded south to the tributaries and the Mississippi River below lock and dam 26. The reasons: improvement in water quality of the Illinois River; increased sampling effort for monitoring of Asian Carp; and/or it is an “invasive species.”

Ohio has seen a large population increase of non-native Eastern Banded Killifish and a decline of the Western Banded Killifish. There is a large gap in lateral line scale count that separates the two subspecies: Westerns have 39-44 and Easterns generally have 48-51. They are known to Hybridize in Lake Erie and those hybrids show a scale count of 44-48. In the calumet region of northern Illinois, there has been a large quantity of individuals documented with this “hybrid” scale count. Genetic testing with mitochondrial and nuclear markers is going to be conducted to confirm this.

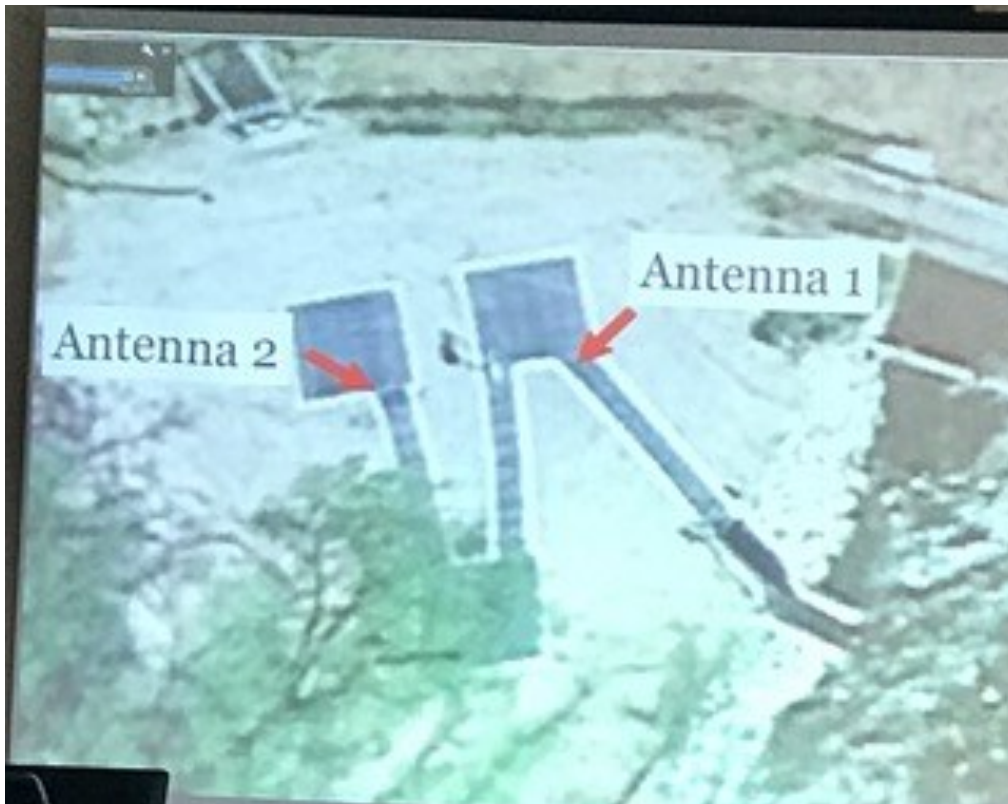
Spalding Nebraska Fishway, Year 2

Steve Schainost, Nebraska Game and Parks

The Spalding Dam on Cedar River provides water to a hydroelectric powerhouse just east of the dam, however the Cedar River should be an important Channel Catfish fishery. A study done in 2000 revealed that the 27 miles of Cedar River upstream of Spalding Dam had virtually no catfish. In the summer of 2003 the powerhouse had to run water through the dam all summer, sampling revealed 46 catfish above the dam. A fish passage grant was obtained and in 2009 a second grant was awarded to draw blue prints. In June 2015, construction for the passageway that would have 3 shoots and 3 resting pools began and the passageway was completed in October of 2017. Evaluation of fish passage was conducted with pit tags and biomarker antennas.

Interestingly, it was noted that fish move more often during high flow, but there is lower velocity in the fishway during these events. Most fish pass through in about an hour (based on antenna data). Most fish passed once, some twice, and one Channel Catfish passed through four times. The fishway cost totaled \$420,000.

Rivers and Streams Meeting Notes



Picture: Aerial image of the NE fishway

Table 2. Number of individuals tagged per species and percent passage through the NE fishway

Fish Species	Number Tagged 2016	Number Tagged 2017	Percent passage 2017
Channel Catfish	141	305	79
Common Carp	21	47	36
Flathead Catfish	1	0	0
Flathead Chub	6	14	14
Largemouth Bass	2	6	33
Quillback	40	39	41
River Carpsucker	39	130	61
Shorthead Redhorse	67	65	37
Walleye	1	0	100
White Sucker	3	3	33
Northern Pike	0	11	0

Interestingly, it was noted that fish move more often during high flow, but there is lower velocity in the fishway during these events. Most fish pass through in about an hour (based on antenna data). Most fish passed once, some twice, and one Channel Catfish passed through four times. The fishway cost totaled \$420,000.

Rivers and Streams Meeting Notes

Progress in Reconnecting Iowa's Wapsipinicon River

Louise Mauldin, USFWS

The Fish and Wildlife Service implements a National Fish Passage Program with a goal of restoring fish and mussel populations by removing barriers to migration and upstream movement. The focal species of this program are: Topeka Shiner (*Notropis topeka*) (Endangered), Higgins Eye Pearlymussel (*Lampsilis higginsii*), (Endangered), Lake Sturgeon (*Acipenser fulvescens*) (regional special concern – establish natural reproducing population in Red River Region), and State species of greatest conservation need (SGCN) mussel groups.

The Wapsipinicon River is 268 miles long and originates in southern Minnesota. The watershed drains 1,550 square miles and the land use is predominantly agriculture with 3.6% dedicated to forest corridor and 3.4% to wetlands (might be slightly higher). The river is a scenic and popular water trail and the watershed boasts some bird conservation efforts and nature preserves. There are 90 fish species and 18 species of freshwater mussels that inhabit it. Game species include Smallmouth Bass (*Micropterus dolomieu*), Walleye (*Sander vitreus*), and Northern Pike (*Esox Lucius*); while SGCN species include Banded Darter (*Etheostoma zonale*), Blackside Darter (*Percina maculate*), and Black Redhorse (*Moxostoma duquesnei*). Mussel SGCN species include Ellipse (*Venustaconcha ellipsiformis*), Lilliput (*Toxolasma parvus*), Creeper (*Strophitus undulates*), and Higgins Eye (*Lampsilis higginsii*).

There are nine mainstem dams, four of which have had some type of action put toward removing them.

Quasqueton Dam – finished in 2014

Dam was left in, but notched to maintain upstream pool elevation. Rock arch rapids were implemented to improve safety. There were 16.4 upstream miles and 54 tributary miles reconnected.

Littleton Dam – beginning summer 2018

Remove dam and implement 6 weir rapids and fishing jetty to keep fishing hole, and upstream pool remains the same for shallow water wells and upstream wetlands. Seventy foot trough, half foot deep to allow fish passage in low flow. Reconnects 56 mainstem miles and 91 tributary miles and eliminates hydraulic rollers while providing recreation and fishing opportunities.

Troy Milles Dam – beginning summer/fall 2018

Still working on the permits, there was a concern for wetlands and boat docks upstream. The dam will be removed and 6 weir rows of rapids will be constructed. 70/75 ft wide low flow trough will be implemented. This removal will reconnect 63.7 miles of river (~15 upstream mainstem/49 tributary).

Pinicon Ridge Park (Central City) Dam - TBD

Currently gathering community input on recreation.

Drones for Restoration Monitoring

Dr. James Deitrich, University of Northern Iowa (Low Altitude Remote Sensing Lab)

Data from drones can produce aerial photos with a higher resolution of <5 cm to create 3D data. The technique calculates scene geometry and camera positions to reconstruct a 3D scene and photogrammetrically derived points in space (xyz) from multiple camera positions. By taking multiple pictures around an object, a point cloud and elevation can be obtained.

Rivers and Streams Meeting Notes

Basic requirements: Digital camera and scale (control points or arbitrary metric scale for small sites)

Prerequisite: Imagery collection of 1.) Overlapping images 2.) Multiple angles and elevations 3.) Convergent imagery

Why use this: 1.) More complete picture of change vs. traditional survey sites 2.) Quantitative change detection (geomorphology, vegetation, and habitat 3.) Fast

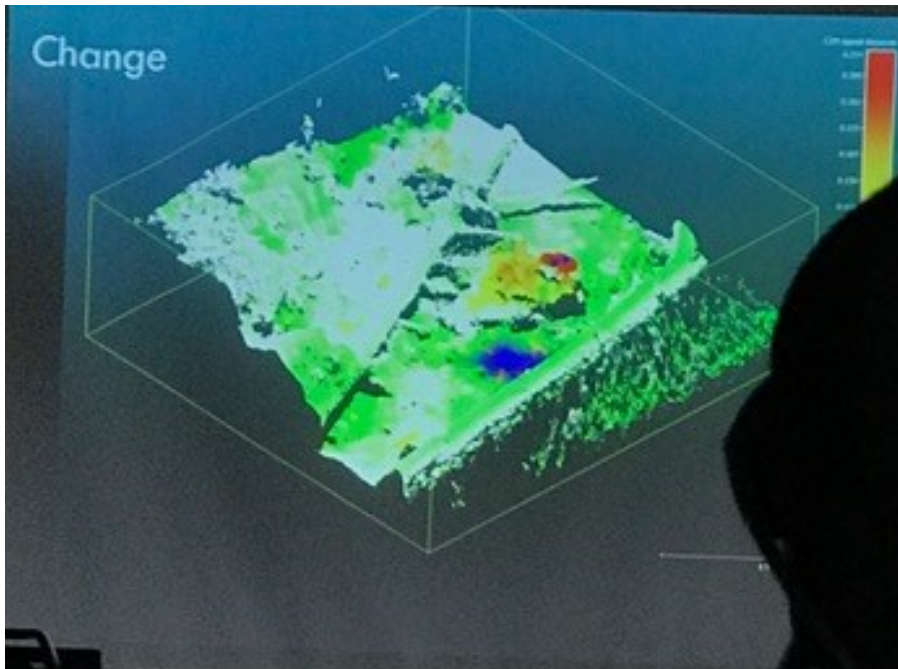
Examples

MFK John Day River in Oregon 2012-2015

Tribe wanted to restore the river for salmon spawning and fishing potential (the previous owner dredge mined for gold). Filled in the dredge channel - Granite Boulder Creek and reconnected it to the mainstem. Holistic view over time showed sand bar formations and widening that traditional imagery would have missed. Could measure change and after 4 years beavers showed up, noted by the beaver dams from drone picture – exciting for the tribe to see them back.

Bartlet Rod Shop Dam Removal

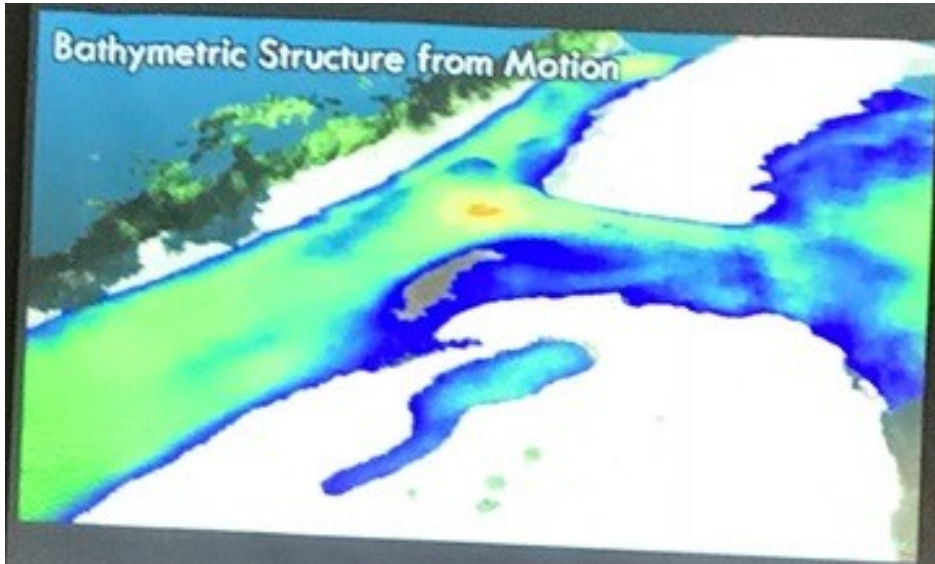
Pit tagged rocks to track sediment movement and used elevation data from drone to see erosion changes and deposition. Drone imagery also showed manufactured riffle relaxation.



Picture: Example of elevation change derived from drone data points

Rivers and Streams Meeting Notes

Final idea: Dr. Dietrich is working on a paper for how to extract bathymetric structure from motion in clear water stream and river systems.



Picture: Bathymetry of a shallow river

Watershed Assessment Toolbox

Chris Haring, Army Core of Engineers, Illinois

Discussed tools to assess offsite and cumulative benefits in watershed assessment in ArcGIS. Purpose was to develop tools to prioritize sites offering downstream sediment reduction. Could provide benefits for navigation, flood risk management, and ecosystem restoration. It gives a scaled watershed approach for: stream conditions, classification tools, assessing watershed and stream channel for restoration potential. Secondly, it can give a rapid watershed assessment approach for: fluvial geomorphology with new ArcGIS/R toolbox for extracting channel dimensions from LiDAR terrain models. It would be helpful for ungagged streams by having the capability to create regional hydraulic curves to help identify the bankfull stage.

Reproductive Potential of Silver and Bighead Carp in the Upper Mississippi River

Allison Lenaerts, Western Illinois University

There have been a few studies that indicate Silver and Bighead Carp are batch spawners and their spawning is triggered by high water events (data from hydrographs).

This research on reproductive potential of Asian Carp (measured by gonadosomatic index (GSI) and fecundity) was conducted at the leading edge of their expansion in pools 16*20 of the Mississippi River. Abundance above lock and dam 19 is lower than below; and with the higher density below individuals are smaller than above lock and dam 19.

For this study, commercial fisherman were contracted to capture Asian Carp in backwaters with 3-5 mm mesh and 100-200 yard length. GSI calculated as $(\text{gonad weight}/\text{total weight}) * 100$. GSI of silver carp (females: n= 261, males: n= 430) and bighead carp (females: n= 99, males: n= 235) among pools 17-20 of the Mississippi River with stage IV ovaries were examined and compared. Eggs were removed from three locations in one ovary per fish (silver carp, n=155 and bighead carp, n= 76), counted, and weighted to estimate fecundity.

Rivers and Streams Meeting Notes

Bighead and silver male GSI is not significantly different between pools. Female silver carp GSI is significantly higher in leading edge populations and decreases as densities increases downstream, Pools 17 and 19 ($p=0.000$), Pools 17 and 20 ($p=0.000$), and Pools 18 and 20 ($p=0.001$). Bighead carp females have a significantly higher GSI in Pool 18 than Pool 20 ($p=.0213$). Silver carp averaged 794 eggs/g ($sd=137.39$, $se\pm 11$), and bighead carp averaged 468 eggs/g ($sd=122.56$, $se\pm 14$) across all pools.

Differences in GSI may reflect a release from density dependent factors within the leading edge. Lower densities may allow for more allocation of resources to gonadal growth versus somatic growth above Lock and Dam 19. Several oocyte stages were present in females indicating that they have already spawned and have the potential to spawn again; this suggests Asian carp are group synchronous spawners.



Indiana Chapter of the American Fisheries Society
North Central Division of the American Fisheries Society

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Chapter News

In the News



- Recovering America's Wildlife Act
<https://fisheries.org/recovering-americas-wildlife-act/>
- AFS and USGS Host Capitol Hill Roundtable on Extreme Events
<https://fisheries.org/2018/04/afs-and-usgs-host-capitol-hill-roundtable-on-extreme-events/>
- Social Media for Fisheries Science and Management Professionals: How to Use it and Why you should
<https://fisheries.org/2018/04/social-media-for-fisheries-science-and-management-professionals-how-to-use-it-and-why-you-should/>
- Introduction to Bayesian Modeling and Inference for Fisheries Scientists
<https://fisheries.org/2018/04/introduction-to-bayesian-modeling-and-inference-for-fisheries-scientists/>



North Central Division of the American Fisheries Society

- Looking to hire a new employee? Looking for a job in the Midwest? Check Out the NCD Job Board. It's free to post to.
<http://ncd.fisheries.org/ncd-jobs-board/>
- Looking for learning opportunities? Check out the Continuing Education section.
<http://ncd.fisheries.org/continuing-education/>

Upcoming Events



COMMUNICATING THE SCIENCE OF FISHERIES
CONSERVATION TO DIVERSE AUDIENCES
AUGUST 19-23, 2018

Getting Hired –What Students Need to Know Webinar—
May 9, 2018

Presented by Pat Mazik (West Virginia University)

<https://fisheries.org/2018/04/getting-hired-what-students-need-to-know-webinar-on-may-9-2018/>

IN AFS Fall Meeting—TBD



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Indiana Chapter of the American Fisheries Society (IAFS)

North Central Division of the American Fisheries Society

Don't forget to post your field sampling pictures to show the rest of the IAFS members what types of projects you are working on!



All in a Days Work

Indiana Department of Environmental Management (IDEM) / Office of Water Quality / Watershed Assessment and Planning Branch: Compiled by Kayla Werbianskyj

Probabilistic Monitoring

The Watershed Assessment and Planning Branch (WAPB) collected 42 samples at 38 sites on water bodies in the Kankakee River Basin. Of 203 fish species expected, a total of 69 different species were captured and 5,511 individual fish were identified. Of those individuals captured, 43 percent were Cyprinidae, 24 percent were Centrarchidae, 18 percent were Percidae, 7 percent were Catostomidae, 4 percent were Esocidae and 4 percent were a combination of other taxonomic families. The best site for fish community was Lateral No. 77 near CR 75 E in Jasper County; this site scored a 54 out of a maximum of 60 on the Index of Biotic Integrity (IBI). The lowest IBI calculated was 14 at a site on Little Kankakee River near SR 2 in Laporte County. Some interesting species identified were: Banded Darter, Starhead Topminnow, Weed Shiner, and Ironcolor Shiner.

Performance Measures' Monitoring

The WAPB collected fish communities at four sites as part of performance measures' monitoring to determine if there are improvements in the biological integrity of the sites: Boyles Ditch (Clinton County), Tributary of South Fork Wildcat Creek (Clinton County), Curtis Creek (Newton County), and Tributary of Ell Creek (Dubois County). The site on Boyles Ditch had the highest IBI score at 54; Tributary of South Fork Wildcat Creek had a score of 46; Curtis Creek had a score of 40; and Tributary of Ell Creek scored a 20. IDEM designates a "passing" IBI score for fish community as 36 or higher.

2018 Monitoring Projects

For the upcoming 2018 season, the WAPB's probabilistic monitoring program is scheduled to focus sampling on waterbodies in the Great Lakes Basin in Northern/Northeastern Indiana. Site reconnaissance, site evaluation and gaining landowner access were completed in March. The goal is to sample 38 sites in the basin. Data to be collected at these randomly generated sites include water chemistry, bacteriological, algal, macroinvertebrate communities, fish communities and habitat quality assessments.

Additionally, data collection will occur at targeted sites in the Lower East Fork White River (HUC 10 watershed) as part of the baseline monitoring and Total Maximum Daily Load project. The WAPB staff will revisit 11 sites to survey macroinvertebrate and fish communities in five sub-watershed as part of performance measures' monitoring to determine if there are improvements. The 2018 sites include: two sites in Steuben County; three sites in Dekalb County; and four sites in Allen County. The objective of monitoring these sites is to document water quality improvements following implementation of a watershed management plan.

Other News

The Watershed Assessment and Planning Branch (WAPB) would like to welcome this year's interns: Cole Baird (Ball State University), Samira Armijos (University of Texas El Paso/IUSPEA), Julia Markovitz (Purdue University), Kathy Roeder (Purdue/IUSPEA), and Taylor Mikulyuk (Ivy Tech)!



Photo: IDEM, Starhead Topminnow (*Fundulus dispar*) – Tributary of Lateral No. 77, Jasper County, Indiana

All in a Days Work

Elkhart-South Bend Aquatic Community Monitoring Program Compiled by Daragh Deegan

I enter this sampling season with cautious curiosity after the record flood that we had in February. It didn't take long for the rivers and streams to settle back to normal, but it's obvious based on the new beaches that settled on the banks of the Elkhart and St. Joe River that sediments moved significantly and I will encounter some new instream features in Elkhart and St. Joe County waterways.



Left—A neighborhood in Elkhart on the St. Joe River during the flood

Below— Sand piles and cleanup at park along the Elkhart River



We will continue our typical biological monitoring routine in the summer of 2018 and plan to sample 30 sites (twice) for fish and 22 sites for bugs. We will also plan on doing aquatic plant surveys at several locations on the St. Joe. This summer we will also start intensive sampling above and below the Elkhart River Dam in downtown Elkhart (scheduled for removal in the summer of 2019). Our community outreach efforts continue to be going strong with 21 outreach events planned to coincide with our sampling over the course of the summer.

Aquatic Control Compiled by Wes Goldsmith

Aquatic Control is proud to announce that we have revamped our Fisheries Management services. Throughout the off season we have been making improvements to our electrofishing boat. We will now be using a Midwest Lake Management Infinity box, two booms with Wisconsin rings, LED lights across the railing, and light strips running throughout the inside of the boat. Our biologists are looking forward to showing off our boat this year while doing surveys on lakes and pond throughout the Midwest. Aquatic Control is now offering Custom Fisheries Management Plans to better meet the goals of our customers. In addition to these plans, we are also offering fish structure installation as a new service and our biologists have already been working on a few small projects this spring.

In other news, treating season kicked off at the beginning of April. Our aeration team and applicators have been braving the inconsistent spring weather we have been having so far. Aquatic Control would like to wish everyone a safe and successful field season!

All in a Days Work

IDNR Fish Management District 1: Tom Bacula and Bri Ciara

Winter transitioned into Sprinter (as seen on many Facebook memes) then back to winter as we started the districts field work. This winter we attended some great meetings with the highlight of the joint AFS/TWS meeting which the meeting organizers did a great job. Late February and March were very interesting at the office with thousands of acres of new water created by record level flooding and levee failures. There was excellent bird watching 100 feet from the office with many species of migratory waterfowl stopping by. It was highlighted with a flock of 300-400 white fronted geese that we don't usually see that large of a group of. Now that the flood waters have receded it has been more back to normal.

We were fortunate to have a returning aide, Damon Binkley, from Grace College. He was able to start in March getting a few loose ends tidied up and knowing what preparations were needed for field work. Damon is an All-American forward for Grace College soccer, which makes it interesting to hear about collegiate sports and lots of practice. We are excited for the upcoming field season with Damon.

Bri has been participating in a watershed leadership class through Purdue called the Indiana Watershed Leadership Academy. It's a 5 month course dedicated that teaches watershed structure and function, leadership skills, how to write a watershed plan, and ultimately how to lead and work with watershed groups and local communities. The course is mostly distance learning with three in person, workshop/class sessions around the state. Through the Division's State Wildlife Action plan, DNR biologists are looking to work more closely with partners and communities to accomplish conservation work on bigger scales. The course is geared toward watershed groups who wish to seek funding from IDEM 319 grants and other granting sources, but has provided useful lessons for us too. It been a great way to connect with local partners who are doing water quality and conservation work around the state. It's also been a very informative class about how to not only look at water quality and fish management from a watershed scale, but also how agriculture, drainage, and local governments play into conservation work, how to effectively assess watersheds, and form goals for improving them.

We started our field work like many others with the opposite of a beautiful spring day, it was 32F with snow showers and 25 mph wind gusts. We were out targeting crappies collecting a few, but we did great on Northern Pike. Caught a few beauties as well. An additional exciting catch was a mudpuppy, a species we occasionally collect. We have a few potentially exciting surveys this year including a few lakes that neither of us have ever been to so it should be exciting seeing some new water. Stay safe.



Bri (top) with a couple of crappies, Damon (left) with a nice pike, and a mudpuppy (bottom).

All in a Days Work

IDNR Fish Management District 5: David Kittaka and Debbie King

I attended a great AFS TWS spring meeting at West Lafayette whereas Debbie opted for the flu that week instead. Thanks to all for putting on a great program. Debbie attended Aquatic Vegetation training in West Lafayette for Cat 5 CE credits and has submitted all of the Status and Trends and general fish survey reports for 2017.

We conducted a fish salvage and broodstock operation at 21-acre Dove Hollow Marsh on the Glendale Fish and Wildlife area in early March. The lake will be drained for drain control maintenance, new boat ramp installation, sediment removal and fish habitat installation. We also collected fish for VHS disease monitoring at Starve Hollow Lake, Driftwood Hatchery's water supply. Debbie worked at this year's Walleye broodstock operation at Brookville Res. and they did such a good job I didn't have to go.

The first week of April we started the Sullivan Lake Creel survey. We will be evaluating the fish habitat enhancement project that was installed in 2016 as well as the overall status of the fishery. We conducted a crappie survey at Sullivan Lake the last week of March. Sullivan Lake is one of two Hybrid Walleye lakes in the state. Not only did we collect almost 400 Black and White Crappie we also loaded one of the Michigan style traps with 215 Hybrid Walleye. (See pic.) Other fish of note were 6 Largemouth Bass over 6.5 lbs and several large Channel Catfish. (See pic.)

Fish surveys on the schedule this year include Brush Creek in Jennings Co., Versailles Lake in Versailles State Park, J1 Lake in Sullivan Co, and Keith Ruble Lake in Vigo Co.



Be safe this year



All in a Days Work

IDNR District 6: Tyler Ham

Spring may be slow to come on this year, but things have been getting quite busy here in District 6! We started off the field season with a crappie survey on Otter Pit, located on Bluegrass Fish & Wildlife Area. Despite cool water temps and cantankerous wind, we were able to collect our full sample consisting primarily of White Crappie but with so Black Crappie mixed in. We mainly encountered most of the usual suspects, but also caught one Muskie and three or four Bowfin. Following the strip pit theme, we next found ourselves at the newly-renovated Pigeon Pit located on Sugar Ridge FWA. We dropped 20 catfish nesting boxes along with 8 clusters of Christmas trees. The nesting boxes were built by a local Boy Scout as part of his Eagle Scout project and the Christmas trees were kindly donated by Lowe's. Not only were we able to plant the seeds to improve local angling, we were able to help a local youth engage in his community which we felt was a win all around! A big thank you to the area staff and Andy Buelmann for coming down from Bloomington for help with the installation. Lastly, we finally made it out of the pits and over to Patoka Reservoir for a Walleye survey. We were able to collect exactly 100 Walleye over two overnight gill net sets, the largest of which was 26". We appeared to catch the tail end of the spawn this year as most of the fish we caught were males. Another thanks to Andy and Amanda for coming down from Bloomington to help us one day. In and amongst this, we were able to help Dave Kittaka out of D5 complete his Crappie survey (and an unintentional Saugeye survey!) on Sullivan Lake, help the SRFWA crew on a controlled burn down on Bluegrass FWA, and assisted with the 2018 Walleye egg take at Brookville.

Coming up on the radar we have a bass survey at Hardy Lake in Scottsburg, helping the folks from Cikana Fish Hatchery stock Walleye fry in Patoka, and prepping for S&T surveys coming up very soon. While it may be snowing outside as I write this, we look forward to the sunnier spring days on the horizon. Be well and be safe, all!

Mixsawbah State Fish Hatchery: Rob Ackerson

Here at Mixsawbah we have been busy dealing with high water that infiltrated an electrical conduit and had a waterfall coming out of the conduit and into the 480 Volt 3 phase breaker panel. We also had to have all 3 of our recycle pump impellers replaced due to extreme wearing. These were replaced one at a time so we had a consistent flow of water moving through the hatchery. We finished up stocking our Skamania steelhead, which were the first year class to be coded wire tagged (CWT). We stocked over 155,000 fish at an average length of 7.33" and a total weight of over 21,000 lbs. Fish were stocked over a 4 day period with the help from personnel from Bodine State Fish Hatchery. These fish went into Trail Creek and Salt Creek, which are tributaries to Lake Michigan. The week of April 2nd, the CWT trailer was on site to clip the adipose fin of the Chinook salmon that will be stocked in a few weeks into the Little Calumet River (another tributary to L. MI). These fish were ~3.65" and numbers were ~ 67,000. The week of April 9th we (Mixsawbah, Bodine and Curtis Creek personnel) headed to Cadillac, MI to the Harrietta Hatchery to pick up 40,000 free 6" Brown Trout. These fish were stocked into Lake Michigan at Jeorse Park and Trail Creek. Our inside culture system is currently full with next year's Skamania Steelhead which will be moved outside mid-May. These fish will be CWT tagged in July, approximately 190,000. Mid-April we will be collecting/picking up Winter Run Steelhead eggs from MI. These fish will be picked at the eyed egg stage and some will go to Bodine for their production and the rest will remain here. They will be put into our inside system in early June and held there until late August. 125,000 will then be CWT tagged in October, and eventually stocked in mid-December. Also in April we will be assisting Bodine with their stocking along with the Curtis Creek Rainbow trout stockings. During May we will be assisting Bodine with a youth fishing event at Pinhook Lagoon in South Bend. Most likely we will also be heading to Cikana State Fish Hatchery to drop off some surplus steelhead for Largemouth Bass brood stock forage and to pick up some Channel catfish to be stocked into some urban lakes/ponds on our way back North, then possibly again in June. After stocking has been done the guys have been pressure washing ponds and cleaning incubation trays (the least enjoyable job of working at a hatchery). Some facility repairs are taking place, the Radon mitigation project is near completion along with some repairs to the stocking truck and other fish culture equipment.

All in a Days Work

IDNR South Region Fisheries Research: Sandy Clark-Kolaks and Andy Bueltmann

Since fall, Southern Fisheries Research has been focused on habitat enhancement projects and crappie sampling. Habitat structures were all placed and anchored in Harden Lake by the Army Corps of Engineers and the Cecil Harden property. Along with habitat enhancement at Harden we are also gearing up for the Monroe Reservoir habitat enhancement project. To this point we have set a date for a volunteer build day on May 19th at the Bloomington Field Office. Through Sandy's efforts, we have acquired a donation of a large number of pallets from Cook Medical in Bloomington and we will be using them to build the structures. Following the build day we plan on dropping the structures from the Funtoon in the upper portion of Monroe in about a 174 acre area. While planning the aforementioned projects, we have also finished spring Crappie trap netting at Dogwood and Cagles Mill Lake.



Crappie sampling this spring was conducted as part of three projects: (1) this year was our 3rd for monitoring a 9 in minimum length limit at Dogwood, (2) We began acquiring baseline population information about all southern Crappie lakes (e.g., status and trends for Crappie), and (3) we began conducting a Crappie gear comparison using Indiana standard nets and Little Michigan nets. We struggled a little to get an adequate sample size at Dogwood this year, only collecting 154 Black Crappie in 3 weeks of sampling. Although we are unsure of why this happened, we attributed the low catch to most likely be a result of prolonged, low water temperatures this spring. Crappie ranged from 5.5 to 13 inches with most being greater than 9.5 inches. A few notable, non target species were also collected including some quality Largemouth all around 4-5 pounds, some nice Channel catfish all around 8-10 pounds, and a 30 pound Flathead catfish. Cagles Mill yielded a large catch of both White and Black crappie totaling at 579 combined. A total of 545 White crappie were collected ranging from 3.6 to 14.1 inches with most being greater than 8.5 inches. A total of 34 Black Crappie were collected ranging from 6.6 to 10.2 inches with most being greater than 8.5 inches.



All in a Days Work

IDNR South Region Fisheries Research: Cont.



Catch of the Day



The charm of fishing is that it is the pursuit of what is elusive but attainable, a perpetual series of occasions for hope.



John Buchan



Andy Bueltmann putting the hurt on some dandy Walleyes

Catch of the Day



Tom Bacula and his kids out ice fishing on a foggy, slippery, day at J.C. Murphy Lake in late January. Below Allison slightly scared of the teeth in the pike.



Daragh Deegan's boys out smallmouth fishing.

Scholarship Opportunity



Media Information

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Shimano Youth Fishing Coordinator: Frank Hyla • fhyla@shimano.com • 949.677.2241

Assists students interested in fisheries, wildlife, natural resource fields of study

BOTH HIGH SCHOOL AND COLLEGE ANGLERS CAN NOW HOOK FUNDS WITH EXPANDED SHIMANO SCHOLARSHIP PROGRAM

LADSON, S.C. – For Immediate Release – March 22, 2018 -- Expanding the qualifications to include both graduating high school seniors and those already enrolled in undergrad and graduate programs, Shimano North American Fishing, Inc. will now award up to \$30,000 in scholarships as part of its 'Shimano Varsity' program. The expansion of the program was officially announced to state DNR professionals and bass club leaders by Shimano Youth Fishing Director Frank Hyla at the biannual B.A.S.S. Conservation Summit held in conjunction with the recent Bassmaster Classic.

"Being one of the cornerstones of our Varsity program, the scholarships provide needed financial assistance to future leaders in conservation, fisheries and wildlife sciences and management," said Hyla, "where we hope those talents help with work done by state, regional, provincial and national natural resource agencies."

Along with the scholarships, Shimano's Varsity Program helps younger anglers learn about fishing tackle and techniques, provides industry networking opportunities at Shimano 'Career Seminar' events, and stresses the role anglers have in fishing conservation and advocacy. "Since our program began in early 2017, those anglers participating in our program have been active with the Keep America Fishing Pitch It program keeping used plastic baits out of our lakes and rivers," said Hyla, "and have picked up thousands of pounds of trash at boat ramps and other areas through our 'Leave It Better' projects."

For their studies beginning in fall 2018, Shimano will award up to fifteen (15) \$2,000 scholarships to U.S. and Canadian high school seniors, college undergraduate and graduate students who are members of B.A.S.S., and majoring in biology, fisheries, wildlife or a natural resource related field. A specially selected panel, including Shimano's Phil Morlock, B.A.S.S. Conservation Director Gene Gilliland, and Chris Horton with the Congressional Sportsman's Foundation, will determine the scholarship winners. Application forms – with a May 31 deadline - are available on the Shimano website at [Shimano Varsity Program Scholarship](#).

Successful applicants will be notified by July 1. The award is made directly to the student winner and can be used as needed for tuition, textbooks or living expenses.