

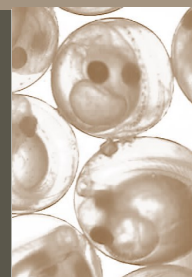
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Iowa Chapter of the American Fisheries Society

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~Greg Gelwicks
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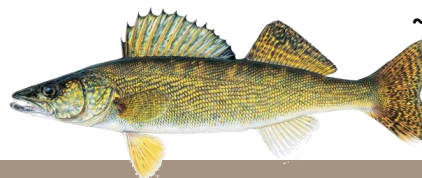


What's New ISU?

Cyclone Corner

~New ponds, Yellow Perch, Asian Carp, Brook Trout, Fish Escapement, Bass, Walleye, and Shallow Lake, oh my!

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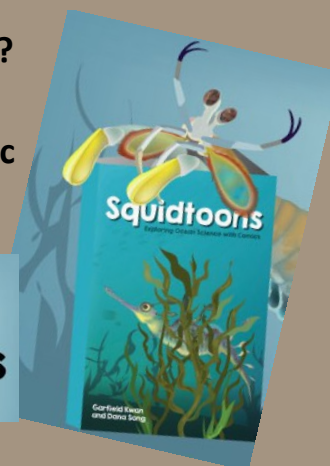
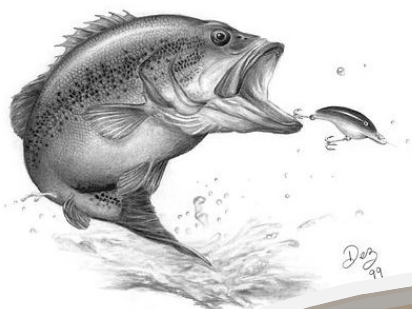


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Book Review: the Squidtoons Comic

**Squidtoons: Exploring
Ocean Science with Comics**





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OFFICERS

PRESIDENT

Jonathan Meerbeek

Natural Lakes Research

122 252nd Ave

Spirit Lake, IA 51360

(712)336-1840

Jonathan.Meerbeek@dnr.iowa.gov

SECRETARY/TREASURER

Kyle Bales

Mississippi LTRM

24143 HWY 52

Bellevue, IA 52031

(563) 872-4976

Kyle.Bales@dnr.iowa.gov

PRESIDENT-ELECT

Scott Grummer

Fish Management—Clear Lake

1203 N Shore Dr

Clear Lake, IA 50428

(641) 357-3517

Scott.Grummer@dnr.iowa.gov

MEMBERSHIP CHAIR

Jeff Kopaska

Boone Research

1436 225th St

Boone, IA 50036

(515)432-2823

Jeff.Kopaska@dnr.iowa.gov

Our Mission:

To improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.



COMMITTEE CHAIRS

Audit

Ben Dodd

Ben.Dodd@dnr.iowa.gov

Membership

JEFF KOPASKA

Jeff.Kopaska@dnr.iowa.gov

Resolutions

vacant

Continuing Education

Clay Pierce

cpierce@iastate.edu

Student Affairs

Mike Weber

mjw@iastate.edu

Nominations

Gary Siegwarth

Gary.Siegwarth@dnr.iowa.gov

Best Paper

Chad Dolan

Chad.Dolan@dnr.iowa.gov

Newsletter Editor

Kim Hawkins

Kim.Hawkins@dnr.iowa.gov

President's Corner

Jonathan Meerbeek

~FINAL THOUGHTS~

It is hard to believe that nearly a year has passed since I took over as the IA Chapter AFS President. The late ice-out this spring in combination with the unusual weather patterns that followed has catapulted us into August, like it or not. So now, I find myself writing my last President's Corner message. I want to start off by saying thank you to the EXCOM for being such a pleasure to work with and for helping me understand the role of the Chapter President. I truly did "grow" throughout this experience and enjoyed the opportunity to serve the Chapter. I know many of the IA AFS Chapter members would also grow and excel in a leadership position such as this. I want to encourage all members to seek more involvement in AFS and to take the next step by "putting your name in the hat" for Chapter President, or by becoming more active in the technical committees. These roles, although often overlooked, are truly important in our profession and those that have or are serving, should be proud of their commitment.

This past July, the Joint Technical Committee Meeting was held at Lakeside Laboratory in Milford and the ISU Subunit hosted the welcome social. I thought they did an exceptional job of planning and executing the event and I know that the professional attendees really supported the subunit's involvement. Creating opportunities for students to interact with professionals is of utmost importance to our Chapter and I was pleased that the subunit took charge and made the event very successful. With that said, I want to also welcome the new subunit President Angelo Cozzola to the EXCOM. Angelo took over for Greg Hand after the spring semester ended and will be an integral part of the EXCOM in the next year.



As I end my President term, Scott Grummer will begin his. Scott is more than capable of performing all the required duties of the President and has been an asset to me as both a seasoned AFS member and as a President-Elect. Soon, a new President-Elect will also be summoned and I encourage members to welcome this individual into their new service role. As for me, I am looking forward to my new role as Past-President.

In closing, I want to thank you for all your support and wish you a safe and productive fall field season!

Jonathan Meerbeek

2018 Iowa AFS Election results:

2018 President Elect ~ Greg Gelwicks



I received my B.S. in Ecology, Ethology, and Evolution from the University of Illinois in 1991, and my M.S. in Fisheries from the University of Missouri in 1995. As an undergraduate, I worked as a technician with the Illinois Natural History Survey working on reservoirs and small impoundments. In graduate school, I studied fish movement between the Missouri River and an intensively managed floodplain wetland in Missouri. I also worked as a temporary biologist with the Missouri Department of Conservation on several small studies on rivers and streams. I then

returned to the University of Missouri as Team Leader for a study of fish use of Missouri River scour holes created by the 1993 flood. I began my career with the Iowa DNR Fisheries Bureau in 1999 in my current position as leader of the Interior Rivers Research Team. I have been a member of the American Fisheries Society since 1992, and served as Secretary/Treasurer of the Iowa Chapter from 2001-2003. I am currently Iowa's representative on the Rivers and Streams Technical Committee, and served as committee chair from 2004-2006. I am honored to be given the opportunity to serve as President of the Iowa Chapter of the AFS.

Letter from the editor ~Kim Hawkins

There comes a time in your career when you realize you have done what you can, and it is time to hand over the reins. I have enjoyed editing the newsletter for the past 10 (gulp) years, but it is finally time to let someone else have a crack at it! Or, technically, I finally found someone willing to take over the duties!

This newsletter is a great outlet to let chapter members know what's going on in your neck of the woods. These newsletters are also posted on the chapter website, so they are also read by national AFS members interested in our work.

Whether the articles are about managing a specific resource, starting a new research project, raising fish, or just interesting information about fish, or other non-aquatic conservation work, there is always someone out there that is interested in what we do, so please keep submitting your articles!

Good luck Darcy Cashatt! Editing can be challenging, fun, and also an outlet for creativity. I'm sure you'll do great!

The Wonder *Fish*

Vance Polton, Lake Darling Fish Management District, Iowa DNR

1878 - "There is, in my opinion, no fish known the introduction of which into Iowa waters promises so much and such general good ..." "Their known ability to stand extremes of temperatures in water, to live in stagnant pools, even bury themselves in mud to withstand extreme heat or cold; eating any and all kinds of food, especially vegetable, upon which they are known to thrive when all other food fails, make them especially desirable for many of our waters." - B. F. Shaw, Iowa Fish Commissioner.

1880 - According to Dr. Hessel, who was in charge of the species hatchery program for the United States Fish Commission, this species has been cultivated in Europe since 1227 where some of the hatchery operations cover an area of 20,000 acres and bring their owners an "immense amount of income". "From this long period of cultivation they have become thoroughly domesticated, and the families as diversified and well defined as the various breeds of cattle." At the time there were three varieties brought to the United States for propagation: the leather or scaleless, the mirror, and the scale. All three varieties were found to be fast growers in the United State that out grew those in their ancestral home the German States. Mr. Blackford, the New York Fish Commissioner, said of this fish: "It is hardy and prolific, and is as good, if not better, eating than any other fish we have." With glowing reports as these, how could the Iowa Fish Commissioners not bring this "Wonder Fish" to Iowa? And so in the spring of 1880 it was introduced into several specially built ponds at the State Fish Hatchery near Anamosa and by:

November 5, 1881 - "The water in one of the State ponds (at Anamosa Hatchery) has partially cleared up, and we were gladly surprised to find a few young, from two and one half to three inches in length, in the pond." "How many may be found when a final examination of the pond is made, we cannot tell, but that these fish have

bred is full of promise of future good. As far as known, these are the first ever bred in Iowa."

1882 - By this time the State had been handing out these fish to private individuals as well as stocking them heavily in public waters.

1883 - More acclaim for these "Wonder Fish": "They live to exceedingly great age, from one to two hundred years, and grow to from fifty to one hundred and fifty pounds." A Dr. George Wigg of Missouri claimed he had one of these fish in his office that had been frozen stiff six times and still showed no ill effects of the harsh treatment.

1885 - "But one of the most notable recommendations for this fish is that it would be possible for almost every farmer to have a fish preserve of his own in which he could grow this fish for his family with less cost and trouble than he can chickens and turkeys."

1911 - "Only a few years ago there was a demand for young CARP and they were supplied by the hundreds of thousands by the United States Government, and also by many state commissions. These fish did not meet expectations and were not approved of as a table fish, and the culture of them ceased." "Pond culture ceased because of the abundance of carp in the rivers and open waters where they could be obtained with less trouble than they could be raised." "It is not a question of what to do with them, to rid our waters of them, for they are here and here to stay. The only question to consider is how we can make the most of its good qualities and lessen the damage done." And so, to borrow a line from Paul Harvey, "And now you know the *rest* of the story."

And so, to borrow a line from Paul Harvey, "And now you know the rest of the story."

Recent Zebra Mussel Detections in Iowa

Kim Bogenschutz, Aquatic Invasive Species Team Leader, IA DNR

The importance of early detection tools for aquatic invasive species (AIS) was highlighted by recent discoveries of zebra mussels in two lakes in August.

Iowa DNR Fisheries Management and AIS staff place zebra mussel settlement samplers in lakes and reservoirs throughout Iowa each summer to monitor for early detection of zebra mussels. Staff also collect water samples from lakes for zebra mussel veliger analysis using microscopy.



Settlement Sampler

Zebra mussel settlement samplers are suspended from docks or buoys in May and checked monthly for the presence of juvenile zebra mussels. Staff found about 20 juvenile zebra mussels attached to the plates of samplers in 3 locations in Center Lake on August 3, 2018. Center Lake was being monitored closely because of its proximity to the Iowa Great Lakes where zebra mussels were first discovered on a settlement sampler in Upper Gar Lake in 2012. Staff have not yet conducted a follow-up survey to determine the distribution of adult zebra mussels in Center Lake.

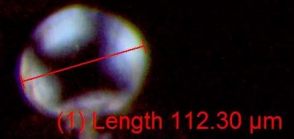
Veliger Identified

Storm Lake

Sample

August 2018

Author: jeuchne
Creation Time: 8/22/2018 4:33:40 PM
Objective Lens: SDFPLAPO PF 1x / 0.15
Note: Storm Lake
8/17/18
112.30 micron
D stage



Zebra mussel veligers were detected in water samples collected from Storm Lake on August 2 and 9, 2018. AIS staff discovered juvenile and adult zebra mussels at three locations during a short survey of the lake on August 22, 2018. AIS staff intend to conduct additional monitoring at Storm Lake this fall and next summer to determine the abundance and distribution of zebra mussels.

Iowa still has few waterbodies infested with zebra mussels. It is therefore critical to continue to prevent their spread during work and recreational activities.

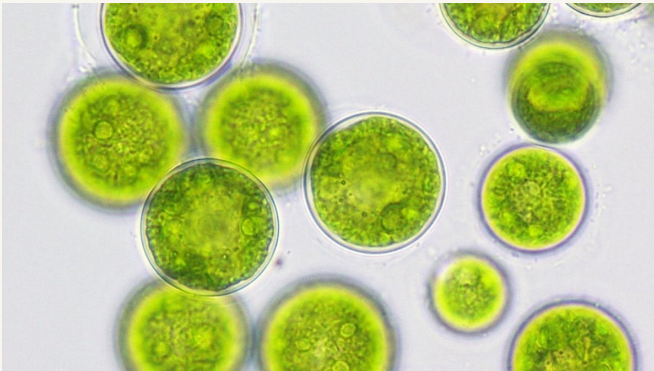


Storm Lake, August 22, 2018

Algae, a Threat to Walleye Vision?

Science Daily, August 27, 2018 <www.sciencedaily.com/releases/2018/08/180827180744.htm>

SUMMARY: Walleye and the fish they eat struggle to see in water clouded by algae, and that could potentially jeopardize the species' future if harmful algal blooms persist, according to a new study.



The research, led by Suzanne Gray of The Ohio State University, found that algae posed more of a threat to adequate vision than an equal amount of sediment -- another common cause of murky waters in the western basin of Lake Erie.

The researchers found a decrease of more than 40 percent in the fishes' ability to see in water clouded by simulated algae as opposed to water equally clouded by sediment. The study appears in the journal *Conservation Physiology*.

For many fish, vision is the primary tool for survival, leading them to food and away from predators that want to eat them.

"This is concerning for these important fish populations. If we can't get a handle on algal blooms, this could threaten their well-being," said Gray, an assistant professor of aquatic physiological ecology at Ohio State.

The researchers placed individual fish -- six juvenile walleye and 17 emerald shiner -- in round tanks of water surrounded by a rotating screen with alternating black and white stripes. The screen moved around slowly and,

in clear water, the fish would naturally identify the pattern and swim circles in time with the rotating stripes.

"It's an innate response for the fish to identify the difference between black and white and follow the screen," Gray said.

The researchers added increasing amounts of either sediment taken from Lake Erie or spinach (to mimic algae) to the tank. Emulsified spinach was used in this and a previous study because of its similarity in color, size and light-scattering properties to common algal bloom species.

After adding sediment or spinach, the researchers observed the behavior of the fish. When the fish stop following the moving stripes, they presumably can no longer see them, Gray said.

Though the amount of turbidity -- a term scientists use to describe cloudiness in water -- was equal with both substances, the fishes' response was not.

They were far better equipped to see in water made murky with sediment than in the green, cloudy water created with the addition of spinach.

"The difference was way more profound than I expected. You could make the water really muddy and they would keep on swimming round and round, but you only had to add a little 'algae' and they would just sit there," Gray said.

Increasing threats of harmful algal blooms in Lake Erie and in freshwater lakes and streams elsewhere are cause for widespread ecological concern, and it's important to understand how they could be impacting fish populations, Gray said.

"This isn't just an Ohio problem, it's a problem all around the world," she said.

The difference the researchers saw in this study may be because the fish have adapted to low-light vision

Algae, a Threat to Walleye Vision? Con't

(walleye hunt at dusk and dawn) in the intermittently muddy waters of the relatively shallow western basin of Lake Erie, she said.

"But algae is different. It's green and it changes the light. It could be that both the reduction in light and the change in color inhibits vision differently than sediment," Gray said. Gray, who has studied fish around the world, became interested in walleye and the emerald shiner on which they feed not long after relocating to Ohio State.

It was 2014, and Toledo had just warned against drinking its water due to a major harmful algal bloom in Lake Erie that had found its way into the public water system.

"I saw an editorial cartoon showing an angler trying to fish in murky green water and saying something like 'Can the fish even see the bait on my hook?' and I thought that I could probably help answer that question," Gray said.

Book Review: the Squidtoons comic

The Fisheries Blog, Posted by bkpeoples on July 23, 2018

Squidtoons has been 'illustrating science with farts, burps, and giggles' since 2013. Their website features entertaining comics packed with info on the amazing diversity of marine life, including a 2016 collaboration with The Fisheries Blog. Now they've released a slick, 119-page comic book that takes their scicomm to the next level.

This isn't your average non-technical science book—It's solid science presented in a one-two combo of hilarious writing and full-page color graphics...In other words, your marine biology textbook as a graphic novel.

Most of the chapters in Squidtoons focus on interesting anatomical or life history adaptations of marine species, covering everything from corals, to narwhals.

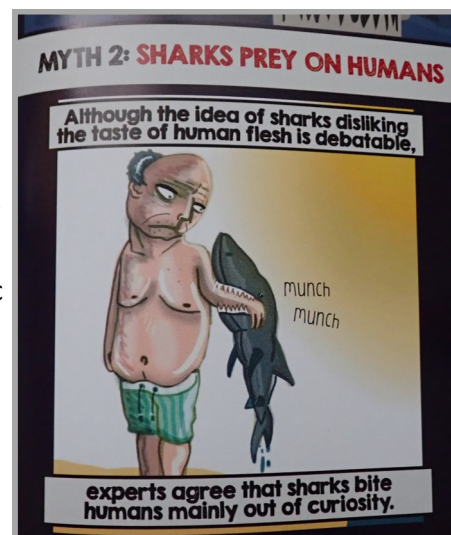
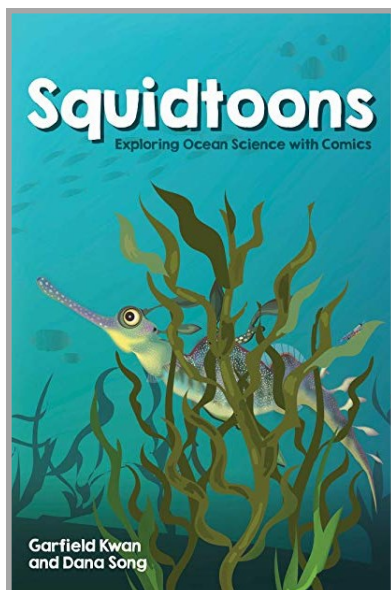
But you'll also find a good bit of ecology and conservation. The curious love life of sea dragons, misconcep-

tions about sharks, and differences between poisonous and venomous creatures are just a few of the cool ecological chapters in Squidtoons.

And let's not forget about the chapter on collecting whale vomit.

But don't let the goofiness fool you—this book is 100% science, including a glossary and bibliography of the peer-reviewed literature from which the information was drawn.

The Squidtoons book is a great introduction to marine science for a variety of readers. It casts a fresh light on how society perceives aquatic scientists, and is sure to inspire young readers who may not have had an initial interest in marine science. And for those readers with more formal training in the aquatic sciences, you'll certainly get a laugh out of it.



Cyclone Corner



Changes on Campus

Michael Weber

Another summer has drawn to a close as classes at ISU start on Aug 20. As you will see below, the students have had a busy summer sampling fish all throughout Iowa, with some pretty amazing cool new discoveries! It has also been a busy summer on campus, with some new and exciting changes. After almost two years of discussion and planning, renovations to the ISU research ponds began this summer, and the ponds should be ready for use this fall! When complete, we will have six 0.2 acre ponds 8' deep that will provide a wonderful new resource to ISU. Thanks to all of the DNR staff that fielded my pond questions and provided guidance during this process and to NREM and CALS administrators at ISU for making this renovation a reality.



We have also been working on renovating some rooms in Science II with new technology and classroom design to enhance both graduate and undergraduate learning experiences (see photo on the left; FYI - this is the same room we hosted the IA AFS continuing education GIS workshop a few years ago). I am fortunate to be able to teach Fishery Management in the new technology classroom this fall and am excited to see how students take advantage of these new resources!

Next, I would like to acknowledge and congratulate Savannah Fernholz and Trevor Blankman, two of our former undergraduate students that worked in my lab and for the Iowa DNR, for publishing their undergraduate research in North American Journal of Fisheries Management in 2018! Our former and current graduate students have been busy publishing their work too – see the complete 2018 publication list below.

graduate research in North American Journal of Fisheries Management in 2018! Our former and current graduate students have been busy publishing their work too – see the complete 2018 publication list below.

Changes on Campus continued....

We had two students leave us this summer. Nick Simpson and Courtney Zambory both graduated with an MS in Fisheries Biology in May. Nick was hired as a Fisheries Biologist by the Kentucky Department of Fish and Wildlife on Kentucky Lake. Courtney accepted a position with the Oregon Department of Fish and Wildlife at a Spatial Information Analyst. We are proud of them both and wish them the best of luck in their new positions!

Finally, we welcomed Brandon Maahs as a new MS student. Brandon earned his BS from University of Wisconsin-Stevens Point and has spent a

couple of seasons as a Technician with South Dakota Game, Fish and Parks. Brandon will be continuing our bass tournament research on Brushy Creek. See below for more on what Brandon has been up to this summer!

The end of summer is a time of change, but we are looking forward to seeing current and new undergraduate students arrive back on campus soon! We have a jam-packed fall semester planned to teach them about the wonderful world of fisheries!

Tight lines!



Nick Simpson



Courtney Zambory

Stocked Adult Yellow Perch Survival and Reproduction in Central Iowa's Small Community Systems

Stephen Grausgruber, MS Student

I began as a graduate research assistant with Dr. Joseph Morris in spring 2018 after graduating from Iowa State University with a BS in Animal Ecology with a Fisheries and Aquatic Sciences option. My previous experiences as an undergraduate researcher and a seasonal fisheries employee inspired me to continue my training in the fisheries field.

The objectives of my research are to evaluate adult Yellow Perch survival and reproduction stocked in six of central Iowa's small (0.4-3.6 ha) community systems within Polk and Dallas counties, with the goal of identifying favorable factors for self-sustaining populations. Adult Yellow Perch will be stocked in fall 2018 and a mark-recapture technique will be implemented to obtain estimates of survival. Additionally, anglers will be encouraged to report tagged Yellow Perch as part of a tag return study to estimate exploitation. Finally, reproduction and recruitment will be monitored in spring/summer to assess if Yellow Perch are able to successfully spawn and recruit in these community systems.



Prairie Plaza South Pond located in Ankeny. One of the six ponds that will be used in the research project.

Yellow Perch continued....

I have been monitoring water quality parameters in each of my study systems over the summer. Weekly depth profiles of dissolved oxygen, pH, and temperature have been taken at 0.5 meter increments to a depth of 4 meters in all systems. Additionally, monthly water samples have been taken and will be measured for total alkalinity, total phosphorous, and total nitrogen in the lab at ISU. These parameters will be continuously monitored for the duration of the research to assess their impacts on the stocked Yellow Perch populations.

Collaboration with the IDNR Boone office and Community Fishing division has been instrumental in getting this project up and running. I would also like to thank the Iowa AFS chapter for their financial support!

Asian Carp Invasion Ecology in SE Iowa Rivers

Nathan Tillotson and Aaron Matthews, MS students

The southeast border of Iowa is currently at the invasion front for Asian carp in the Upper Mississippi River (UMR). Since 2014, we have been conducting larval fish and egg sampling and fall electrofishing surveys throughout the UMR along the Asian carp invasion front (pools 20-14) to monitor adult Asian carp abundance and document evidence of successful reproduction. Recently, we have completed the identification of 2016 and 2017 ichthyoplankton, and are now at the end of the 2018 egg/larval sampling season. Similar to 2014, Asian carp larvae found in 2016 and 2017 tend to be more abundant in the UMR downstream of tributaries, suggesting these locations may be important for reproduction, but with annual variation in reproductive output.

In 2018, we collected 648 ichthyoplankton, zooplankton, and phytoplankton samples (1,944 total samples) to assess fish reproduction and food availability in the UMR. Unfortunately, on August 11, we documented the presence of many juvenile (~120mm) Silver (bottom photo), Grass (middle photo), and Bighead Carp (top photo) in a backwater of the Skunk River approximately 2 miles upstream of the confluence with the UMR. This juvenile Bighead Carp is only the second documented instance they have been observed above Lock & Dam 19. Successful reproduction of Silver and Bighead Carp above Lock and Dam 19 has been thought to be limited, but this finding may suggest an expansion of their established range. Processing of this year's egg/larval samples is already underway, and we will continue to chip away at them as we gear up for our fall electrofishing surveys targeting more juvenile and adult Asian carp starting in September.



Identifying Remnant Brook Trout Populations in NW Iowa

Brett Kelly, MS student

Beginning in May, we transitioned into the first field season of the Northeastern Iowa Coldwater Stream Assessment. Our main goals during this time were to sample headwater streams of the Upper Iowa and Yellow River across Winneshiek, Allamakee, and Clayton counties in order to: 1) locate wild populations of Brook Trout; 2) investigate stream fish community assemblage; 3) characterize stream habitat; and 4) monitor stream temperature fluctuation.



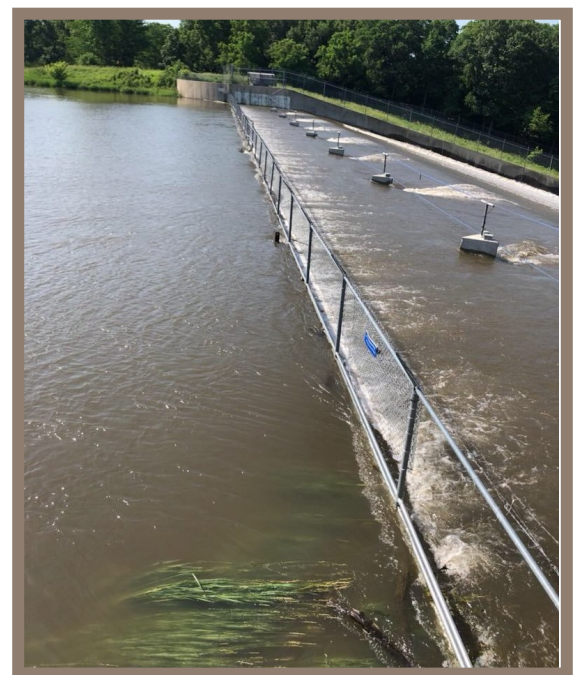
To address these goals, our team of ISU undergraduate students, Iowa DNR officials, and myself conducted standardized stream assessments using Iowa wadeable streams protocols involving backpack electrofishing and habitat measurements. All fish were identified, enumerated, and all trout were measured in length and weight. Brook Trout were fin clipped for later genetic assessment. Stream temperature monitors were placed in the streambed in order to inform us how stream temperatures vary across time and also in hopes of de-

termining a suitable thermal range for Brook Trout; thus allowing future reintroduction efforts to remain successful. Special thanks to all landowners, Iowa DNR officials, volunteers, and my ISU field technicians for helping us sample over 85 streams during our first field season!

Walleye and Muskellunge Escapement from Iowa Reservoirs

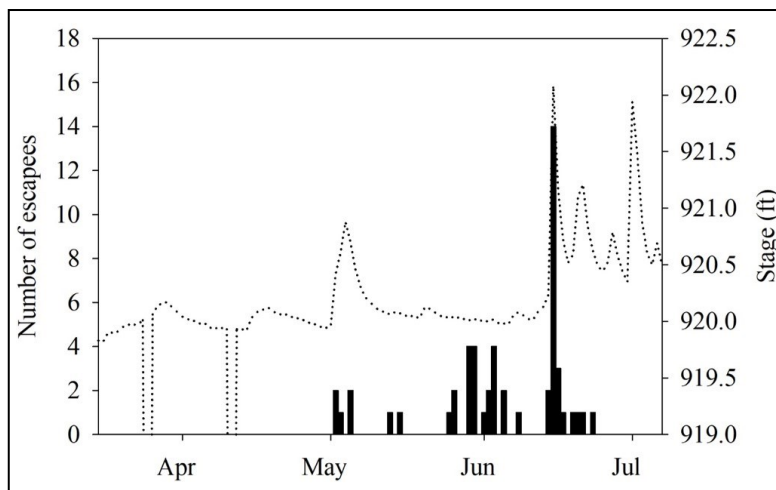
Robert Weber, MS Student

During April 2018, Iowa State University and IDNR conducted completed 47 – 2.5" gill net and 40 experimental gill net soaks (2.5 hours/soak) and 10.5 hours of electrofishing at Big Creek and 50 – 2.5" gill net soaks, 30 experimental gill net soaks, and 13.5 hours of shocking at Brushy Creek. At Big Creek, 677 Walleye and 26 Muskellunge were measured, weighed, and scanned for a PIT tag whereas 651 Walleye and 34 Muskellunge captured at Brushy Creek. During May 2018, we travelled to Rathbun Fish Hatchery to PIT and radio tag age-1 Muskellunge that were stocked into both lakes. During the first week after stocking, we observed high mortality (>50%) of radio tagged age-1 Muskellunge in both systems, likely due to warm water temperature during stocking as well as avian and terrestrial predation. Since April 2018, 97 tagged Walleye and 34 tagged Muskellunge have escaped from Brushy Creek. Seventy percent of these Walleye were >12" while



Walleye and Muskie Escapement continued....

over half of escaped Muskellunge were $>27"$. At Big Creek, 42 tagged Walleye and 5 tagged Muskellunge have escaped; 93% of these Walleye were tagged as juveniles in 2016 and 2017, while all escaped Muskellunge were tagged as juveniles in 2016. Approximately half of the Big Creek fishes escaped during high flow events in mid-June that compromised the barrier and rendered it ineffective until late June (see image and figure). Since spring 2017, no radio tagged fishes have escaped from Big Creek, while 44% of radio tagged Muskellunge and 23% of radio tagged Walleye in Brushy Creek escaped.



Water elevation of Big Creek Lake (dotted line, right y-axis) and number of escaped fish detected by the PIT tag antenna (vertical bars, left y-axis) during 2018. Most escapement occurred following a high flow event that damaged the barrier (see picture above).

Brushy Creek Lake Bass Study

Brandon Maahs (MS student) and Andrea Sylvia (PhD candidate)

I (Brandon) joined the bass project at Iowa State University in May 2018. I graduated with a BS degree in Fisheries and Biology from the University of Wisconsin- Stevens Point before moving to South Dakota to work as a Fisheries Seasonal for the South Dakota Department of Game, Fish and Parks. During my time in WI and SD, I participated in research projects focusing on age and growth of Black Crappie and broodstock collection methods of Chinook Salmon. My desire to expand my knowledge on population dynamics, angler influence, and my love for bass fishing attracted me to the Large-mouth Bass project here at Iowa State.

New black bass tournament regulations were implemented in Iowa at the start of the 2018 open water fishing season, allowing tournament anglers to weigh-in a bag of five fish with no minimum length limit. The new regulations are being evaluated through an additional two years of mark-recapture analysis compared with data previously collected from 2015-2017 by Andrea Sylvia prior to the regulation changes. Since April 2018, we have tagged 1,174 tournament captured bass and 662 electrofished bass at Brushy Creek with individually numbered metal jaw tags. We have recaptured ~750 bass via electrofishing, tournament attendance, and recreational angler reporting, with some fish being reported up to five times. Overall, we will attend all bass tournaments in 2018 and 2019 (~40/year) and electrofish all shockable shoreline once per month to tag new individuals and record recaptures. Additionally, 58 Largemouth Bass were implanted with radio telemetry tags and are tracked weekly during the open water season to assess habitat use, home range and mortality.



Brushy Creek Bass Study continued....

Preliminary analyses have found that only 33% of the tournaments in 2018 have used the change in regulations by increasing their bag limit to 5 bass or decreasing their minimum length limit to less than 15". As of early August, 14 of 58 radio telemetry bass have been brought into tournaments, indicating ~24% of the population has been captured and weighed-in so far this year. Continued analysis will assess the proportion of tournaments utilizing the new regulations, proportion of the bass population being capture during tournaments, and effects of live-well density on delayed mortality.

Walleye Stocking in the Okoboji's

Emily Ball, PhD candidate

This past fall, four technicians and I spent our evenings electrofishing the shorelines of East and West Okoboji from September to the end of November. Our mission was to capture and pulse gastric lavage as many Largemouth and Smallmouth Bass, Northern Pike, Muskellunge, and adult Walleye as possible. During the fall 2017 field season, we evaluated the diets of 932 Largemouth Bass, 21 Smallmouth Bass, 462 Northern Pike, 24 Muskellunge, and 331 adult Walleye. Thus, most of the summer has been spent identifying and weighing the 1,781 prey items found in predator stomachs (Fig. 1A). I just finished identifying prey items, organizing the samples (Fig. 1B), and data entry. My next task is to combine and analyze diet data sets from fall 2015, 2016, and 2017. The overarching objective of this project is to assess post-stocking predation rates on fall stocked advanced fingerling Walleye.

Additionally, we have recently published two manuscripts associated with this project in the past several months, including one lead by one of our former undergraduate students, Trevor Blankman. Trevor's manuscript evaluated the efficiency of pulsed gastric lavage for age-0 Walleyes and was published in North American Journal of Fisheries Management. The other manuscript that was just accepted in the Journal of Applied Ichthyology evaluated biometric relationships between age-0 Walleye total length and external morphometric features and will allow us to better estimate the sizes of age-0 Walleye that are consumed by predators.



Figure 1. Predator stomach processing consisted of identifying each prey item (A) and then organizing the samples (B).

Common Carp & Bigmouth Buffalo Management in Shallow Natural Lakes

Marty Simonson, PhD student



The second field season of my population assessment of Common Carp and Bigmouth Buffalo in seven natural NW Iowa lakes proved to be very productive despite high water and severe weather. IA DNR Fisheries staff from Lake View, Onawa, and Spirit Lake contributed to the project significantly and together we completed over 100 lake visits tagging over 14,000 fish (10,454 Common Carp with 302 recaptures and 3,666 Bigmouth Buffalo with 8 recaptures). In addition, we collected age structures from nearly 1,000 fish.

Three ISU undergraduates and myself stayed at Iowa Lakeside Laboratory between May and August and used it as our home base to visit Center, Five Island, Storm, and Silver (Dickinson) Lakes. Our field season began with assistance from commercial anglers seining fish to tag, followed by repeated boat electrofishing to develop robust capture-mark-recapture population analyses. In Fall 2018 we plan to continue sampling for adults and begin targeting

young-of-year fish.

At some of our study lakes, incentivized harvest will begin in 2019 and I am looking forward to the research gaining traction as we reduce Common Carp and Bigmouth Buffalo biomass. Will there be an improvement in water quality? How will these populations respond to harvest-based biomanipulation? Only time will tell.



Application form
Fisheries Project Grant
Iowa Chapter – American Fisheries Society

Project Name: _____

Project Description: _____

Attach map or supplementary information

Project Location:

Water Body: _____

Address: _____

_____ County: _____

Start Date: _____ End Date: _____

Project Personnel: _____

Fisheries Benefits: _____

Iowa Chapter Representative: _____

Amount needed: \$ _____.____ Total project cost: \$ _____.____

Money will be used for: _____

Up to \$1,000.00 per project.

Approved by Excom Committee Date: _____

The Iowa Chapter of the American Fisheries Society is offering to help finance worthwhile fisheries related projects. The completed application form needs to be transferred to the Iowa Chapter President by an Iowa Chapter Member.

Project Name – Give the project name.

Project Description – Give a brief review of the intended project. Include the work to be done, the methods and material that will be used in the project.

Attach a map and any supplementary information that you think will help the Excom Committee evaluate the project.

Project Location – Where will the work be done.

Start and End dates for the project. Month and calendar year will do.

Project Personnel – Include organizations and or individuals who will be directly involved in the work.

Fisheries Benefits – A very important part of the project should be direct benefits to Iowa's fishery. How does the project help and who is the beneficiary?

Iowa Chapter Representative – All projects need to have an Iowa Chapter member as a sponsor.

Amount needed – Tell us how much you need and the total project cost.

Money will be used for – Be as specific as you can. Will the money be used to hire people, buy equipment, be seed money for a grant, etc.

There is a \$1,000.00 limit for each project.

The Excom Committee of the Iowa Chapter will review the application and approve or reject the request.