



President's Message, *Steve Pescitelli*

Happy New Year!

I hope you all had a great Holiday Season and found time to reflect, and reenergize for the coming year. Certainly this year went by quickly. It seems like I just started as Chapter President, and I have really enjoyed the ride so far. In February I will turn the gavel over to the very competent hands of our current Vice President, Jim Lamer. It will be smooth transition, I assure you.

Speaking of transitions, before I get to all the new exciting stuff that is happening in the Chapter, I must address the elephant in the room, so to speak. In many ways it was good to be finished with 2016, but moving into the New Year, we as environmental professionals should have many concerns regarding the changes in Washington. Clearly, there is an anti-regulation and anti-science theme in statements and appointments made by the new administration. We will have to see how it all plays out, but I think we all realize that we will need to double down and keep our eyes on the prize. Our National Chapter has been proactive on this front and has released a strong statement aimed at the new administration regarding our aquatic resources; please take a moment to review this if you haven't already <http://fisheries.org/policy-media/future-of-the-nations-aquatic-resources/>. This is a comprehensive description of the importance of aquatic ecosystems, along with a listing of primary threats and potential actions. After reading this, I had a renewed vision and energy regarding the

importance of our fisheries profession (now more than ever) in terms of quality of life, economic output, and food production issues, to name a few.

In my opinion, this policy document is just one example, among many, that demonstrates the value of National AFS Membership. As I mentioned in my last message, the Parent Society has really ramped up the number and quality of services offered to the State Chapters and other units of the organization. They just recently announced another program which provides an incentive for Chapters to encourage their members to enroll at the National level.

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Chapter Objectives:

- Promotes training of fisheries professionals.
- Provides education outreach to the citizens of Illinois.
- Fosters research in fisheries and aquatic sciences.
- Provides sound fisheries policy information.
- Enhances communication and synergistic relationships amongst fisheries professionals.



Chapter Officers and Chairpersons

President: Steve Pescitelli

President-Elect: Jim Lamer

Secretary: Greg Whitledge

Treasurer: Rich Lewis

Past President: Brian Metzke

Excom Members at Large: Karen Rivera/Kevin Irons

Committee Chairpersons:

Archival: Nathan Grider

Arrangements: Brian Metzke

Awards: Steve Pescitelli

Continuing Education: Ben Lubinski

Environmental Concerns: Rob Colombo/Karen Rivera

IL Environmental Council: Diane Shasteen

IL Wildlife Action Team: Trent Thomas

Membership: Brian Metzke

Newsletter: Brian Metzke/Jason DeBoer

Raffle: Blake Ruebush

Resolutions: Rob Hilsabeck

Student Concerns: Nerissa McClelland/Dan Grigas

Student Subunits:

Eastern Illinois: Bethany Hoster

Southern Illinois: Aaron Schiller

University of Illinois: Emily Reed

Western Illinois: Ashley Stanley

Website: Brian Metzke

NCD Committee Reports Representatives:

Centrarchid: Josh Sherwood

Esocid: Rob Colombo

Ictalurid: Jeremy Tiemann

Rivers and Streams: Trent Thomas/Steve Pescitelli

Walleye: Jason DeBoer/Mike Garthaus

If you or someone you know is interested in supporting our organization, please contact the membership committee chairman, Brian Metzke (brian.metzke@illinois.gov), for more information.



President's Message

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Many of the Chapter Presidents at the KC meeting challenged National AFS to articulate why Affiliate members (those who only pay State Chapter dues) should shell out the extra money for National dues. I think National AFS has stepped up to this challenge overall, and in this new program, they are actually putting their money where their mouth is, as it were. They are offering financial rebates to State Chapters who achieve 50% or more National membership. You will be hearing more about this in the coming months and at our Annual Chapter Meeting.

Speaking of the Annual Chapter Meeting...make your plans now because this is going to be great one. One of the things which came out of our officer's retreat this fall (more on this later), was to make a few changes to the annual Chapter meeting. An exciting new feature is adding a plenary speaker. And even more exciting, that speaker will be one of our esteemed Alumni, Past Chapter President, and current Executive Director of AFS, Doug Austen. I think it will be very interesting and informative and a fun homecoming celebration. We are also holding a special "Management Session". This will be a kind of mini-symposium consisting of real-world fisheries management professionals who were invited to share their important work and experiences. As you may know, the call for papers and registration is on our website. So dust off your abstracts or just get yourself registered up - you won't want to miss this year's fun.

As you also know, the raffle is our big money maker. The Raffle Committee and Student Subgroups always do a great job of collecting great items. Please help if you can and think of any items you may be able to contribute or coerce out of local vendors. Speaking of contributing, we have several openings on our standing committees. If you are interested please contact me or any of the ExCom members.

Last fall we held a special ExCom retreat at Kibbe Biological Station – thanks to Jim Lamer for hosting. This is new thing for the Chapter, with the aim of convening a smaller group for an extended period of time in order dig down on the current status of Chapter and discuss ideas for the future. Another important goal was to share information between outgoing and incoming officers regarding duties and operations. We all found this to be very helpful indeed, thanks in a large part to Past President, Brian Metzke, who knows the workings of the Chapter as well as anyone. In addition to new ideas for the Chapter meeting, we also discussed updates to the website, membership, dues levels, future meeting locations, and few other general items. A few of us stayed overnight at Kibbe for some Mississippi catfish and beers – thanks to Jim. Perhaps this will become an annual event and another reason to become an AFS officer (nudge, nudge).

One notable item which came out of the retreat was a renewed effort to attract affiliate members and change the emphasis from "Corporate" sponsors to appeal to a wider audience. Once again, Brian stepped up and produced a new brochure including some new membership categories with fish and angling themes (funny that). It has been posted on our website, so I encourage everyone to check it out, and more importantly, do some recruiting. One of the targets we felt needed to be approached more actively is angling groups. Many of the fishing clubs in my area of the State are eager to help, often asking how they can contribute or help the cause. An affiliate membership in Illinois AFS is a perfect fit. Perhaps there are some untapped NGOs out there as well.

Well, that is about it for this, my final newsletter rant. So long for now and I hope to see you all at the Annual Meeting in Moline. Thanks to all the officers and members who make Illinois AFS such a great organization. It is a real pleasure and honor to serve as President; I highly recommend giving it a try.

Cheers,

Steve

Snapshot on graduate student research at EIU, *Bethany Hoster*

As a consequence of human activities, fishes around the world are exposed to endocrine disrupting compounds from the discharge of wastewater into rivers. Estrogenic compounds, such as those found in oral contraceptives and soybean isoflavones, are endocrine disruptors that can interfere with vertebrate endocrine systems. The Sanitary District of Decatur serves the municipal and industrial components of Macon County, IL, and discharges its treatment effluent into the Sangamon River. Its wastewater sources include over 100,000 residents, two hospitals, and several industrial users. Soybean processing waste comprises a large component of the industrial waste. Isoflavones found in soybean byproducts, known as phytoestrogens, are compounds found in plants that mimic the estrogenic compounds produced by vertebrates. These byproducts are not efficiently removed by the wastewater treatment process and ultimately are discharged into the Sangamon River. Little is currently known about the effect of these combined sources of estrogenic compounds on wild fishes.

My thesis research is one aspect of a larger, long term study in collaboration with the Sanitary District of Decatur (SDD) to monitor the impacts of wastewater treatment effluent on water quality and biotic communities in the Sangamon River. The purpose of my thesis research is to determine if and how the wastewater treatment effluent released by the SDD impacts fishes in the Sangamon River. River Carpsucker (*Carpoides carpio*), Smallmouth Buffalo (*Ictiobus bubalus*), and Shorthead Redhorse (*Moxostoma macrolepidotum*) were chosen as the study species due to their high abundance in this area of the Sangamon River, the observation of abnormal fin morphologies, and the lack of previous research on these species.

I am using a combination of techniques to determine the condition, reproductive health, and exposure to contaminants of these fish species. Since the focus of this study is on exposure to estrogenic compounds, I am primarily studying how male fishes are impacted and if they are displaying signs of feminization. All individuals were collected using pulse-DC electrofishing. All fishes of the study species were measured, weighed, and sexed. Total length and weight were used to calculate relative weight. All male fishes had blood drawn for analysis of vitellogenin concentrations using ELISA kits. Vitellogenin is an important protein biomarker found in blood that only naturally occurs in female fishes and is used for egg production. If vitellogenin is found in male fishes, it is an indication of feminization and can lead to the production of testicular oocytes. Testes were dissected, weighed, preserved for histology, and analyzed for the presence of testicular oocytes. I am currently processing blood and gonad samples to determine if intersex condition is occurring and will have results in the coming weeks. I expect to detect vitellogenin and testicular oocytes in male fishes from the Sangamon River.



Bethany Hoster hugging a beautiful buffalo

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Snapshot of catostomid research at EIU, *Bethany Hoster*

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I am also examining the condition of fishes in the Sangamon River due to the observation of abnormal morphologies of the caudal, anal, pelvic, and pectoral fins in my study species. Due to its similar species assemblage, watershed use, and lack of similar effluent, the Embarras River in Charleston, IL, was used as a reference site. Data have found River Carpsucker and Smallmouth Buffalo in the Sangamon River have significantly lower relative weights, indicating worse physical condition, compared to fishes from the Embarras River. River Carpsucker and Smallmouth Buffalo also have significantly longer caudal fins, with caudal fins averaging 6-7% more of the total body length, than fishes from the reference site. My hypothesis is that these fishes from the Sangamon River are exhibiting mutations, possibly due to exposure to contaminants. Further morphometric analyses are being conducted to quantify differences in fin morphologies between the Sangamon River and the reference site. If large impacts on fish species are found, the results of this project will broaden our understanding of the combined effect of industrial and municipal estrogenic wastewater contaminants.

River carpsucker displaying elongated ventral fins.



Smallmouth buffalo displaying elongated ventral fins

**Biography of incoming chapter secretary nominee, Philip Willink, *Philip Willink***

Philip Willink is currently Senior Research Biologist at John G. Shedd Aquarium. He received his Ph.D. from the University of Michigan – Ann Arbor with his dissertation titled “Function and Variation of Gill Rakers in the Fish Family Catostomidae, with Comments on Phylogenetic Tests of Natural Selection”. The research involved fieldwork, aquarium studies, and examination of museum specimens. While a graduate student, he worked on a project with the Michigan Department of Natural Resources / Institute for Fisheries Research to survey the state of Michigan to assess the status of lesser-known threatened and endangered fishes. Phil subsequently took a position at The Field Museum to help coordinate and participate in expeditions to South American rivers that had not been surveyed before by scientists. The results were published as conservation and management recommendations, as well as the descriptions of several new species, habitat usage, and small-scale biogeography. Over the years, research emphasis shifted back towards northern Illinois and southern Lake Michigan. As a consequence of these travels, Phil has surveyed fishes in Brazil, Bolivia, Peru, Suriname, Guyana, Venezuela, Guatemala, Mexico, Madagascar, Papua New Guinea, and Midwest United States (Wisconsin, Illinois, Indiana, and Michigan, as well as all five Laurentian Great Lakes). His current interests involve trying to understand the dynamic mosaic of habitats on the bottom of nearshore Lake Michigan using mapping and fish surveys, invasive species such as the Weatherfish, and the distribution and status of fishes on the cusp of being listed as E&Ts or not. The last topic involves using both morphology and molecules to review the taxonomy of some species, fieldwork to determine their status, analysis of potential threats, and working with organizations to address the threats. Other ongoing projects involve Mudpuppies and tagging Lake Sturgeon, for which he received the 2015 Professional Paper Award from the Illinois Chapter of the American Fisheries Society. These projects are only possible because Phil has worked with in one manner or another the Illinois Department of Natural Resources, Illinois Natural History Survey, Southern Illinois University, Western Illinois University, Loyola University, University of Illinois, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Environmental Protection Agency, Chicago Wilderness, adjacent state DNRs, several Forest Preserve districts, local parks, and many, many others. He has appeared on the national news of every major network, and filmed documentaries with BBC, Discovery Channel, National Geographic Channel, and a recent PBS documentary on invasive species in the Great Lakes. He has also provided background information for several episodes of Animal Planet’s River Monsters. Phil currently lives in La Grange Park, IL with his wife and son (5 ½ years old, a dinosaur taxonomic expert, a fantastic swimmer in the ‘unbiased’ eyes of his father, and loves walking up and down streams with his mom and dad).

Phil’s primary fieldwork failure is his inability to find a living Bull Shark in Lake Michigan, but efforts are ongoing... so stay tuned. (Okay, you will probably have to wait forever for this one!)

Phil Willink holding a Lake Michigan lake trout.
Not a Bull Shark.



IL AFS 2017 Donation request letter

December 2016

The American Fisheries Society (AFS) was founded in 1870, and is a nonprofit professional and scientific organization of approximately 10,000 international fisheries scientists. The AFS is the oldest and largest organization dedicated to strengthening the fisheries profession, advancing the fisheries science, and conserving the fishery resources. The mission of the AFS is to promote scientific research and enlightened management of fisheries resources for optimum use, and encourage comprehensive education of fisheries scientists and continued on-the-job training.

The Illinois Chapter of the AFS (IL/AFS) is holding the annual meeting February 21-23, 2017 at the Stoney Creek Inn, in Moline, Illinois. We are expecting about 100 fisheries professionals including researchers, managers, culturists, and students from across Illinois. The meeting is one of the largest gatherings of outdoor enthusiasts in the state. The purpose of this letter is to invite you to support our annual fundraiser. We greatly appreciate your donation last year. Proceeds from the fundraiser are used to assist the IL/AFS in promoting our fisheries resources and provide scholarship funds for deserving students. For example, the IL/AFS annually gives several hundreds of dollars in awards for travel to scientific meetings, best paper/poster presentations, and outstanding undergraduate and graduate students. Your donation is tax deductible, and recognition of your support will be gratefully acknowledged during the meeting and in the Illinois Chapter newsletter, which is read by over 250 people. Ways to donate include merchandise contributions for the annual raffle/auction (e.g., Chicago Bears T-shirt, fishing equipment, clothing, outdoor gear, etc.) or cash contributions. All donations greater than \$35.00 may be accompanied by a literature display at no additional charge. Checks should be made payable to the Illinois Chapter of the American Fisheries Society. We thank you for your assistance and concern about the future of our fishery resources. If you have any questions, please feel free to contact me at 309-357-0939 or blake.ruebush@gmail.com.

Thanks again for your support.

Blake Ruebush, Fisheries Biologist, Illinois Department of Natural Resources

The Illinois Chapter of the American Fisheries Society
Federal Identification Number 23-7226683 - Tax Exemption Number 54-0683803

Please mail donations to:

Blake Ruebush
Illinois American Fisheries Society
IDNR Fisheries
1252 West Washington Street
Pittsfield, IL 62363

Announcements

ILLINOIS AMERICAN FISHERIES SOCIETY STUDENT TRAVEL GRANTS



The Illinois Chapter of the American Fisheries Society (IL AFS) will be awarding up to **4 travel grants** for students to attend this year's Annual Meeting. The grants will be **\$100 each** to help students to attend the Annual Meeting to be held at the Stoney Creek Inn and Conference Center in Moline, IL from **February 21-23, 2017**.

Criteria for this selection will be based upon financial need and/or reason(s) for attending the meeting (e.g., paper presentation, pertinent paper session, IL AFS committee meeting). Students should include the above information and also state their class standing (i.e. junior, B.S. candidate), fisheries related interests, participation in IL AFS activities, and AFS membership status when applying. A letter from each applicant's advisor confirming the need for travel money is also required.

Grant recipients are asked to attend the Business Meeting at the conference to receive their awards.

ALL STUDENTS ARE URGED TO APPLY, REGARDLESS OF WHETHER OR NOT THEY ARE PRESENTING A PAPER!!!

Submit electronic (preferred) or paper applications

by: January 27, 2017

to: Nerissa McClelland
IL AFS Student Concerns Committee
IDNR-Havana Field Headquarters
700 S. 10th Street
Havana, Illinois 62644
Phone: (309) 543-3316 (ext. 228)
E-mail: nerissa.mcclelland@illinois.gov

Announcements

ILLINOIS AMERICAN FISHERIES SOCIETY STUDENT RESEARCH GRANTS



The Illinois Chapter of the American Fisheries Society (IL AFS) has awarded 2017 Larimore student research grants to the following students:

1. Bethany Hoster, Eastern Illinois (Dr. Robert Colombo), who's research is featured in this issue!
2. Kasey Seibert, Southern Illinois (Dr. Greg Whitledge)
3. Devon Oliver, Southern Illinois (Dr. Greg Whitledge)
4. Jordan Pesik, Eastern Illinois (Dr. Robert Colombo)

Congratulations to each of our 2017 winners!

Announcements

Annual Conference Details:

55th Annual Meeting of the Illinois Chapter of the American Fisheries Society
Stoney Creek Inn, Moline, Illinois
February 21-23, 2017

The conference will begin at 1PM Tuesday and end at 12PM Thursday. The registration table will be open at 12PM Tuesday. Registration includes dinner and social on Tuesday, lunch, dinner and social on Wednesday and snacks each day. Breakfast is included with a hotel booking.

Early registration will be open until February 12.

Abstract submission is open until February 1.

A block of rooms is reserved at the hotel until January 20.

Visit our website to register and submit abstracts: <http://illinoisamericanfisheriessociety.weebly.com/annual-meetings.html>

We look forward to seeing you in Moline!

