



President's Message, *Greg Whitlege*

Dear fellow ILAFS members,

I would like to thank the members of the Illinois Chapter of the American Fisheries Society for the opportunity to serve as chapter President this year. During my twelve years as an ILAFS member, the chapter has been a great asset to myself and my students by providing opportunities to develop collaborations, stay informed about recent and ongoing research and management of fisheries and other aquatic fauna in Illinois, and develop friendships with colleagues who share a passion for fish and fisheries science and a commitment to informed conservation and sustainability of our aquatic ecosystems. The chapter has also supported professional development for several of my students through travel awards to attend the annual ILAFS meeting and with Larimore Student Research Awards to support their thesis or dissertation research projects. We have a long and outstanding track record of fulfilling our mission as an AFS chapter, and I am pleased to have the opportunity to give back to a terrific organization.

We are privileged to have several people who have devoted their time to serve in leadership roles in the chapter and in helping to make our annual meeting a successful event each year. In particular, I want to thank my pre-

decessor, Jim Lamer, for his leadership as chapter President in the past year. Jim has hosted an ExCom retreat at WIU's Kibbe station each of the past two years, an event begun by former chapter president Steve Pescitelli, which has been very helpful for planning and brainstorming ideas for chapter activities and initiatives and passing along institutional knowledge of the chapter to new ExCom members. Under Jim's leadership, scoring criteria for judging student and professional talks and posters at the annual meeting have been standardized and clarified and best paper and poster awards are now presented at the end of the meeting to allow awards to be presented to students in person.



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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: Greg Whitledge

President-Elect: Phil Willink

Secretary: Blake Ruebush

Treasurer: Rich Lewis

Past President: Jim Lamer

Excom Members at Large: Karen Rivera, Kevin Irons

Committee Chairpersons:

Archival: Nathan Grider

Arrangements: Jim Lamer

Awards: Nerissa McClelland

Continuing Education: Ben Lubinski

Environmental Concerns: Karen Rivera/
Randy Sauer

IL Environmental Council: Diane Shasteen

IL Wildlife Action Team: Trent Thomas

Membership: Josh Sherwood

Newsletter: Brian Metzke/Jason DeBoer

Raffle: Rebekah Anderson

Resolutions: Rob Hilsabeck

Student Concerns: Dan Grigas

Student Subunits:

Eastern Illinois: Jessica Thornton

Southern Illinois: Charmayne Anderson

University of Illinois: Jared Wilson

Western Illinois: Alex Loubere

Website: Jessica Thornton

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



Illinois Council
Trout Unlimited



If you or someone you know is interested in supporting our organization, please contact the membership committee chairman, Josh Sherwood (jsherwo2@illinois.edu), for more information.

President's Message, *Greg Whitledge*

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Phil Willink is now President-elect, Karen Rivera and Kevin Irons continue to serve as ExCom members-at-large, chapter finances remain under the care of Treasurer Rich Lewis, and we welcome Blake Ruebush as the new chapter Secretary. Thanks to all of our committee chairs, and to everyone who contributed to making the 2018 annual meeting at Pere Marquette State Park a success.

In particular, I thank Steve Pescitelli for making arrangements for the 2018 meeting venue, Brian Metzke for setting up the abstract submission tool, Dan Grigas for an outstanding job coordinating judging for best paper and poster awards, Blake Ruebush for overseeing another fun and profitable raffle to support student awards, everyone who volunteered to serve as a session moderator or judge for talks and posters, and a special thanks to April Burgett and Kim Dunnigan for their fantastic support as Annual Meeting Program Coordinators to help the conference run smoothly.

There have already been several opportunities in 2018 for ILAFS to include our voice in support of sound policy for promoting conservation and sustainability of fisheries and aquatic ecosystems, and I anticipate that there will be further opportunities to do so in the months ahead. Since our annual meeting in February, the chapter has signed on to a letter (<https://docs.google.com/forms/viewform>) supporting the Recovering America's Wildlife Act, which would provide \$1.3 million annually to support conservation of imperiled species. A link was also provided for chapter members to submit comments on the U.S. Forest Service's proposal to withdraw 234,000 acres of land in the Superior National Forest in northern Minnesota from potential mining activities. A recent update indicated that there is strong support for the proposed withdrawal, including comments submitted by several of our chapter members. Thanks to Eric Gittinger for bringing this issue to the chapter's attention at our annual meeting. The chapter will continue to work with AFS Policy Director, Drue Winters, on other policy initiatives, including opposing the repeal and replacement of the Waters of the U.S. (WOTUS) Rule. If you haven't already done so, I encourage you to visit the policy tab on the national AFS website for more information and updates on AFS policy initiatives.

Our chapter has had a strong presence at regional and national conferences, reflecting the quantity and quality of our fisheries research and management activities in Illinois and their relevance to our home waters and beyond. This year's annual AFS meeting in Atlantic City, NJ and Catfish 2020 are on the near horizon and I anticipate that Illinois will have substantial representation at both of those conferences. In addition, Illinois is the host state for the Midwest Fish and Wildlife Conference in 2020. One of the major tasks for this year will be to get the ball rolling in preparation for hosting the Midwest. Planning and hosting a conference of this size will require much help; stay tuned for updates and opportunities to help make the 2020 Midwest Fish and Wildlife Conference a well-run, enjoyable, and worthwhile event for our colleagues from around the North Central region.

Please feel free to contact me or other ExCom members if you have ideas for how we can enhance our ability to achieve our chapter objectives, questions or feedback on chapter activities or initiatives, or if you're interested in becoming more involved in the chapter in some capacity. As chapter President, I would like to work with the continuing education, awards, and student concerns committees to potentially begin offering awards to support student attendance at continuing education workshops, such as those held in conjunction with the national AFS meeting. The North Central Division has recently begun offering "Knowledge Seeker Awards" for this purpose, and I hope to develop a similar program to support professional development of students in our chapter.

The chapter is in great shape thanks to the hard work and dedication of chapter members and leadership over many years. I will do my best to ensure that we continue our tradition of excellence in all that we do as a chapter for our aquatic resources, fisheries professionals, and the citizens of Illinois. Have a safe, enjoyable, and productive field season!

Sincerely,

Greg

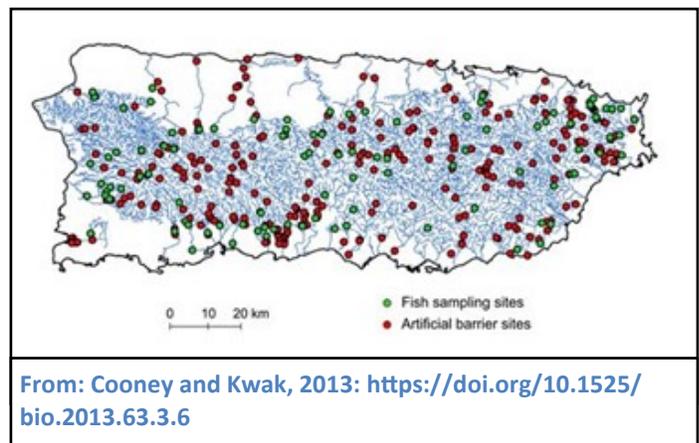
Southeastern Division AFS Meeting, San Juan, Puerto Rico, Steve Pescitelli

First of all, I want to give a big thanks to the Illinois Chapter for supporting the trip to SDAFS meeting in Puerto Rico. My wife Pam and I had a great time in San Juan, and in addition to the meeting activities, managed to visit a few of the local sites. It was especially great to see my old friend Tom Kwak, the President of the SDAFS, an INHS Alum and the Program Chair (hence the invitation). Our Past President and current Executive Director, Doug Austin was also in attendance. We met a lot of new people, and I have to say that overall the meeting felt very much like our own meetings. Fisheries folks seem to be the same no matter where you go; friendly, welcoming, and...they know how to have a good time.



In addition to the fun, there was also some very good science, just to let you know that I did attend some papers. There were 250 people at the meeting, held in a stunning venue on the beach, the Hotel Intercontinental – one of those places you probably would not stay without the conference discount. Meeting attendance was down a bit due to the hurricane and State Agency travel restrictions (darn). Tom said that most of the attendees presented papers and so despite low attendance, there were 7 concurrent sessions. I gave a talk on our dam removal evaluation work, which was well received since they are beginning a dam removal program in Puerto Rico.

One paper in our session described the existing dams and their impact on the fishery. I was surprised to discover that there are 335 dams on the Island's 46 drainages. Tom is working on "Fishes of Puerto Rico" and gave a presentation on his sampling around the island. There are only ten native freshwater species and a host of introduced species. All the native species, including American Eel, spend some part of their life cycle in the Ocean, so the dams have a huge impact on fish assemblages. There is a native goby whose larvae ascend the streams from the ocean during the crescent moon. They are a delicacy for the locals who put them on everything, including pizza.



Immediately following our session there was a very important event, Rums of Puerto Rico, where we were able to taste a variety of island products ranging from aged, sipping rums to lighter mixing rum. In fact, one of my new favorite drinks: mojitos. There were very pricey at the hotel but quite reasonable by the pitcher across the street at the local grocery store – a popular local hang out. Other conference social activities included a pig roast, with a build-your-own pasta bar; all most excellent. We also had an outing to the nearby Vivo Beach Club, which had a brewery and a large stage where we watched a world-class Puerto Rican Folk Dance group. One of the local biologists was a dancer in the group, so they donated the show. Cheap Trick was scheduled to play there the following weekend.



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Southeastern Division AFS Meeting, San Juan, Puerto Rico, Steve Pescitelli

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The weather was fantastic, sunny and in upper eighties, so we found some time to hang out on the beach and by the pool (trying not to rub it in). The island was not quite up to speed as a tourist destination since the hurricane, so there were few crowds. We did not see extensive structural damage from Maria in the area where we stayed but, according to one waiter, 30% of the people, including his family, were still without power. The roads in the rainforest had just opened on March 1, so we able to take the short drive from our hotel to El Yunque National Forest. We waded in the beautiful, high gradient, mountain streams which, as we were cautioned, can become raging torrents in a heartbeat. (I was surprised to see a USGS gaging station there). We saw one species of fish swimming in the clear waters, Mountain Mullet. The forest was green and lush and, besides a few downed trees, there was little obvious hurricane damage, at least to the untrained eye. The plants there are well adapted to the storms since Puerto Rico is right in Hurricane Alley; buffeted by the same trade winds that brought Columbus there in 1493, followed shortly by the Spaniards and many other would be conquerors and fortune seekers. Puerto Rico means “rich port” and the massive forts in Old San Juan where built there by the Spanish to protect from Dutch, English and other invaders. Old San Juan is very charming and European, with some excellent restaurants and bars – don’t miss it if you ever get down there.

Anyway, that was our “Excellent Puerto Rican Adventure”. Thanks once again for the travel grant, which paid the registration fee and helped a bit with travel expenses. It was indeed a great experience and I would highly recommend Puerto Rico. It was also educational and fun to attend a fisheries meeting outside the Midwest Division. See you all next February in Champaign.



SIU Welcomes New Faculty Member in Aquaculture, *Greg Whitledge*

Southern Illinois University Center for Fisheries, Aquaculture, and Aquatic Sciences Welcomes New Faculty Member in Aquaculture

Dr. Karolina Kwasek, Assistant Professor specializing in aquaculture, joined the faculty at SIU in January. Dr. Kwasek received her Ph.D. from Ohio State University and did postdoctoral study at Ohio State and the University of Insubria, Italy. Her research expertise is primarily in nutritional physiology of fish, particularly early life stages. More specifically, her research has focused on how different forms of dietary amino acids affect larval fish development, health, intestinal transport, and hormonal regulation. She is investigating how dietary dipeptide configurations, health-promoting peptides, and protein hydrolysate profiles help to improve dietary protein utilization in young fish. In addition, her research focuses on ways of reducing use of live feeds in hatcheries, improvement of larval rearing techniques, and how protein sources used as alternatives to fishmeal in feeds affect fish digestive processes and metabolism. Dr. Kwasek will teach undergraduate and graduate level courses in aquaculture and we are excited to welcome her to the Fisheries faculty at SIU.



Fish Kills; their Seasons and Causes, Leonard Dane

Fish kills can be natural or caused by pollution. Natural fish kills are caused by stressed fish succumbing to a pathogen or low dissolved oxygen in the water. Pathogens are naturally present in the environment and may not affect the fish until they become stressed. There are generally three times of the year when fish kills occur – winter, spring, and summer.

The winter fish kill is generally caused by low oxygen stress. As a lake goes through turnover in the fall, it becomes fully oxygenated prior to ice-up. Aquatic organisms consume the oxygen and while sunlight penetrates the ice, plants and algae produce oxygen. However, once snow covers the ice and blocks sunlight, less oxygen is produced than is being consumed through respiration by fish, plants, and bacteria decaying organic matter. If there is a prolonged period of snow cover, fish become stressed as the oxygen becomes depleted. Also involved is the simultaneous rise in carbon dioxide from ordinary respiration of fish, plants, and bacteria and an increase in hydrogen sulfide, a poisonous gas, which is a product of bacterial respiration in the absence of oxygen. Fish require less oxygen during the winter to maintain life. However, if the oxygen dips too low, and the carbon dioxide (which acts as an anesthetic to fish) rises to an anesthetic level, and hydrogen sulfide rises to a poisonous level, the fish get hit from three different directions at once, and winterkills occur. In general, winter kills affect many sizes and species of fish.

After the ice melts off a lake and the water temperatures rise, biological activity increases. The bacteria in the water respond to the rising water temperatures quicker than fish, which are already stressed from the winter. In addition, the sexually mature fish begin preparing for the spawning season which compounds the stress levels. To cope with the extra stress the fish produce hormones called cortisol. However, these stress relieving hormones suppress the immune system making the fish more susceptible to disease. The most common disease is Columnaris disease. Caused by the bacterium *Flexibacter columnaris*, this disease is stress mediated meaning the worse the stress, the more fish are affected. The most common fish species affected are larger Bluegill, Crappie, Common Carp, and Bullheads. The loss of fish starts slow and gradually peaks over a period of days and then tapers back off. It occurs in the spring when the water temperature reaches approximately 68° F, which is shortly before or during the spawning season. Although many other species of fish may be present in the lake, none will appear to be sick or dying. *Columnaris* disease can affect from 50 to several thousand fish depending on the size of the lake and the severity of the outbreak. The fish populations are almost never seriously affected and the disease will subside on its own as the first spawning period passes and the water temperatures begin to stabilize.

As summer progresses and water temperatures increase, the next type of fish kill can occur. Many lakes in Illinois are very fertile (i.e., high nutrient levels). The increased water temperature (which holds less oxygen than cooler water) and elevated fertility generally produce more aquatic life. Several cloudy days in a row can cause a collapse of the heavy population of one-celled organisms. The abnormally high levels of bacteria begin to decay the recently dead organisms. At this point, like in winter, the consumption of oxygen through biological processes may exceed oxygen production and may drive the oxygen level in the lake to near zero. Even if the oxygen does not go to zero, extended periods of low oxygen can place heavy stress on fish. After a week to 10 days a disease can break out. The first indication of this type of kill will be the fish coming to the surface in the early morning hours. Seldom, if ever, will a summer kill wipe out all of the fish in a lake. Typically the small fish (Bluegills and Green Sunfish) less than an inch and Bullheads survive and larger Largemouth Bass and Channel Catfish perish.

Fish kills can also be caused by pollution. Pollution can be from chemical spills running off into a body of water. Also, if aquatic herbicide treatments for plants and/or algae are done when the water temperatures are too high and oxygen levels are too low, a fish kill can occur. A fish kill caused by pollution generally wipes out all species within 24 to 48 hours.

If a fish kill occurs on a lake or pond in your neighborhood it is recommended that the dead fish be collected and disposed of in the trash as soon as possible to eliminate odor of decaying fish and the possibility of a health hazard. You should contact your local fisheries biologist to make him aware of your situation. Also, a fisheries survey should be conducted to see the extent of the damage done by the fish kill before any stocking program is initiated.

2018 Annual Conference Recap, *Brian Metzke*

The 56th Annual Conference of the Illinois Chapter of the American Fisheries Society was held February 20-22, 2018 at the Pere Marquette Lodge in Grafton. President Jim Lamer presided over the event which saw 86 professional and 33 student attendees.

Thirty-three oral papers and 16 posters were presented at the conference. The most common topics were Asian carp (18 presentations), game or commercial species (10), large river fish assemblages or populations (8) and mussels (4).

President Lamer led a business meeting that included reports from each committee and student subunits. Four students (Emily Tucker [U of I], Michael Glubzinski [SIU], Sarah Molinaro [U of I], Toniann Keiling [U of I]) were awarded Larimore student research grants and four students (Charmayne Anderson [WIU], Eric Hine [EIU], Jessica Thornton [EIU], Jesse Williams [WIU]) were awarded student travel grants. 2017 and 2018 presentation honors were awarded at the business meeting. Emily Szott (2017 best student paper), Phil Willink (2017 best professional paper), Allison Lenaerts (2017 best poster), Eric Hine (2018 best student paper), Jason DeBoer (2018 best professional paper) and Claire Snyder (2018 best poster) received plaques. Mike Hooe, a recent IDNR Fisheries Division retiree, was given the Forbes Excellence in Fisheries award to honor his career achievements. At the conclusion of the business meeting Blake Ruebush was announced as the incoming Chapter Secretary and Greg Whitledge transitioned to Chapter President.



President Jim Lamer at the business meeting

Both evenings were capped off by social events. The raffle was another success, yielding approximately \$2500 for student awards. This year WIU won the Subunit competition for greatest value of donated raffle items.



Incoming president Greg Whitledge receiving the 'gavel' from outgoing president Lamer



Wednesday evening banquet and raffle

IL AFS members on the small screen!

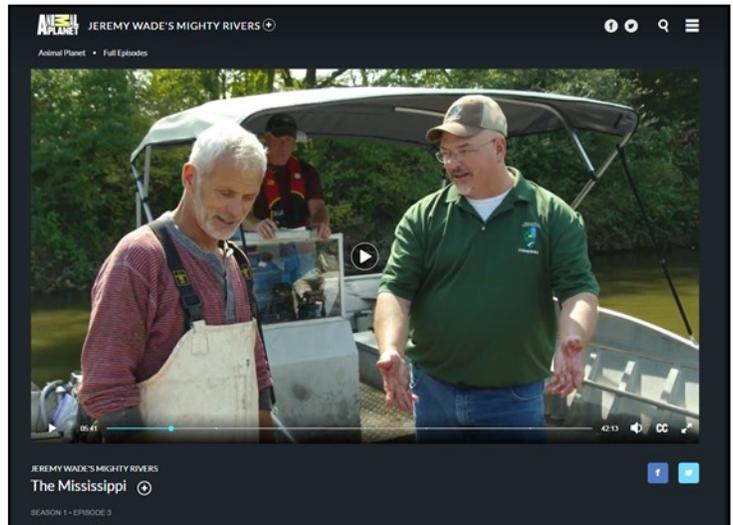
Several of our members have recently been seen on nationally televised programs. Did you 'catch' these episodes?

The IDNR and INHS Asian Carp crews in Yorkville were recently seen on an episode of Jeremy Wade's *Mighty Rivers*, on Animal Planet, featuring an interview with Kevin Irons.

"In this new six-part series, Jeremy sets out to examine and explore some of the planet's largest waterways with the same immersive style that made *River Monsters* a global success."

"The Mighty Mississippi is threatened on several fronts - from alien invaders pushing out iconic native fish, to vast blooms of green algae strangling life from the river. Jeremy Wade meets scientists, fishermen and leaders fighting to save the river."

[Watch the full episode here!](#)



Several of the INHS crew from the Illinois River Biological Station in Havana, including Jason DeBoer's personal boat, *Mudskipper*, were recently seen on an episode of *America the Beautiful: Wild Frontier*, a five-part documentary series on Nat Geo WILD.

"Over five hours, *America The Beautiful* tells the story of the frontier and wildlife closest to America's heart. We explore the woods that Davy Crocket once called home in The Great Valley of Appalachia, and where Wild Bill Hickok saw his last sunset in The Badlands of South Dakota."

"At America's center, the Mississippi, the Missouri and the Ohio combine their strength and transform into a behemoth that splits the nation."

[Watch the full episode here!](#)

