



President's Message, Steve Pescitelli

Greetings Fellow Chapter members,

First of all, let me say it is an honor and privilege to be associated with such a great group of Illinois Chapter Fisheries Professionals. I look forward to serving as your President over the next year.

To me, the annual meeting is definitely a highlight of the year. I always come away feeling energized and lucky to be a part of all the great science and good fun. A big thanks to all the members who helped put together another excellent meeting. The raffle was as good as ever and is always a hoot. Thanks go out to our colleagues at IL-MA for their big part in organizing the meeting. Also, let's acknowledge Brian Metzke for all he has done for the Chapter, especially during the last year as President. He knows the workings of the Chapter as well as anyone and I am sure I will be consulting him often. Congratulations to our incoming Secretary, Greg Whitlege, looks like we are in good hands for years to come.

Speaking of the future...I must say I am very impressed with the IL AFS Students and the Student Chapters. Their contribution to the raffle has been outstanding. As always, the students presented some excellent papers

at this year's meeting. We are fortunate to have really top notch programs at our Universities. (Keep in mind that a lot of their work is funded through the USFWS Sportfish Restoration Fund, so go out and buy a fishing license, you all). Unfortunately, as we have heard on the news and discussed at the Business meeting, Illinois' budget impasse is putting a real squeeze on everything, but especially on higher education. be heard on this issue in the form of Chapter Letter to the powers that be. If you would like to have input, please let us know.

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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/
Randy Sauer

IL Environmental Council: Vic Santucci/Diane
Shasteen

IL Wildlife Action Team: Trent Thomas

Membership: Matt Diana

Newsletter: Brian Metzke/Jason DeBoer

Raffle: Blake Ruebush

Resolutions: Rob Hilsabeck

Student Concerns: Nerissa McClelland/Dan Grigas

Student Subunits:

Eastern Illinois: Hanna Kruckman

Southern Illinois: Alex Loubere

University of Illinois: David Boggs

Western Illinois: Eli Lampo

Website: Matt Diana/Ann Holtrop

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, Matt Diana (matt@illinois.edu), for more information.



President's Message

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This does indeed threaten the current and future status of Fisheries in our State, and certainly has a negative impact on the overall economy. We voted at the meeting to let our voices be heard on this issue in the form of Chapter Letter to the powers that be. If you would like to have input, please let us know.

Speaking of the Current Status of Fisheries...We have a great Fisheries tradition here in Illinois, going back to Stephen A. Forbes, and many others too numerous to mention. When I read the old literature, sometimes it seems like we are dealing with the same problems mentioned back then, pollution, habitat destruction, dams, sediment and run-off, among others. On the other hand, there has been great progress made, the Clean Water Act, TARP, CREP, dam removals, to name a few. In addition, we have many new tools in our arsenal. There have been advances in electrofishing equipment, computing, satellite tracking, GPS, side-scan sonar, communication, etc., etc. How did we get along without Google Earth? We also have some new challenges, like Asian Carp and other invasive species. To me it is remarkable how we as professionals, rise to these challenges. As you heard at the 2016 meeting and over the past few years, the Asian carp program has unleashed the full force of our knowledge and technology on these invaders. Just about every one of our tools has been employed, and in a very coordinated way – it is quite extraordinary. As you also observed at this year's meeting, there is very impressive work going on in all areas of our field, from management to stream restoration to gear evaluation to large river ecosystems to Lake Michigan and beyond. It is my opinion that, despite the current budget problems and other challenges, the State of Fisheries in Illinois remains strong. We are all lucky to be involved in such an important, useful and, not least of all, fun occupation.

Speaking of having fun...As mentioned at the business meeting, I encourage everyone to share your fun experiences with your fellow chapter members. An easy way to do this is on our Chapter Facebook page. There is a lot of noise out there on social media, especially these days, so I look forward to seeing your posts of cool fish, mussels, aquatic habitats, equipment, sampling, as well as questions, comments, techniques, quips, on and on. I think we should also discuss ways to make it easier for Members to share their work at the annual meetings. Perhaps we could have one non-judged "flash" session in which members can briefly describe their projects, preliminary data, observations, etc. I think there is precedent for this at other AFS meetings. I will be discussing this with ExComm, but feel free to weigh in with your opinions or ideas. By the way, I also like the Keynote speaker idea (good job John and Phil!); perhaps we can continue that as well.

In conclusion, as always the Chapter is here to help you the members, so please don't hesitate to let us know how we can do that better. It sounds cliché, but communication is key (BTW I urge you to weigh in on the National AFS Communication Strategy). Please also consider volunteering for a Chapter Committee, it is fun, rewarding and does not take all that much extra time.

I wish you all a fun, safe, and productive field season and look forward to seeing you all in Moline '17.

Sincerely,

Steve



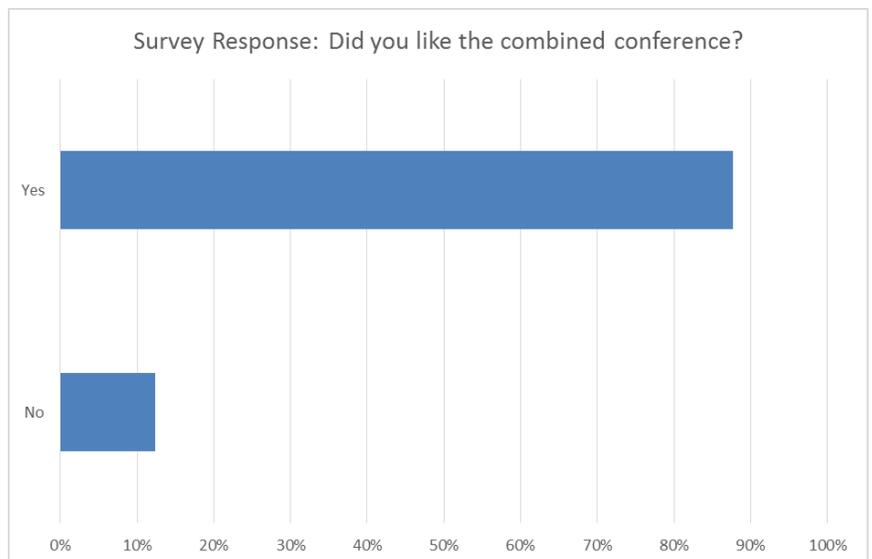
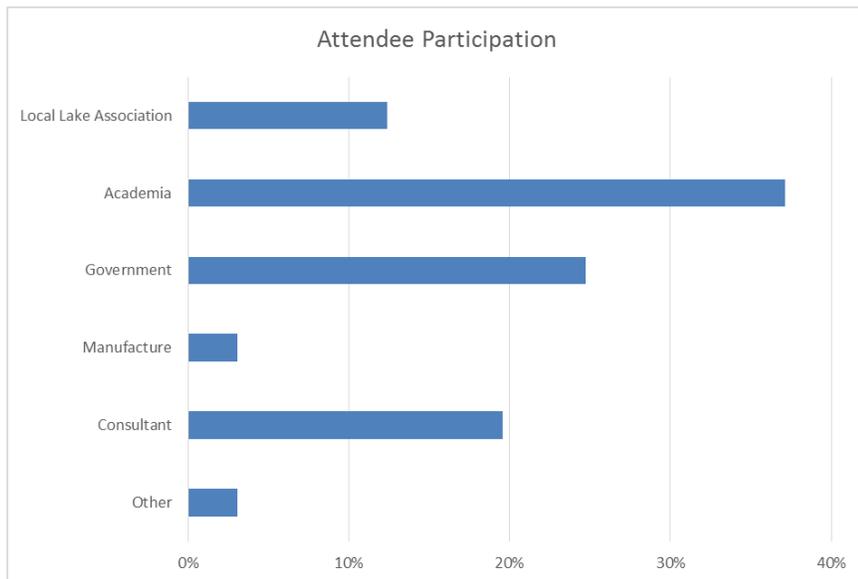
2016 Conference Recap, *Brian Metzke*

Another successful annual conference is in the books, and this year we had the pleasure of holding a joint meeting with the Illinois Lake Management Association. Members from both groups convened to share knowledge and interact socially.

Two hundred eighteen attendees from 73 agencies, organizations and institutions participated in the three-day conference. Sixty papers and 18 posters conveyed details of studies and programs on topics ranging from nutrient transport, efficacy of sportfish management, dam removals and mussel translocations. One of the conference's highlights was a keynote session with three speakers discussing Asian carp, algal blooms and mysterious sightings in Lake Michigan.

The raffle event was quite successful; more than 100 items were donated and more than \$3000 was raised for AFS student grants and awards. Thanks to all those that participated and donated.

We look forward to seeing you in Moline next year.





2016 Conference Recap, *Brian Metzke*



Jeremiah discussing life-lessons and what young professionals and students can learn from seasoned biologists.



Nerissa congratulating Phil on his 2015 Best Professional Paper award.



2016 conference attendees enjoy the raffle and libations.



Matt discusses seasonal Asian Carp movements.



Meet the new IL AFS Secretary

Secretary, Greg Whitledge, Southern Illinois University

Dr. Greg Whitledge was confirmed as the incoming ILAFS Secretary during the annual business meeting. His biography is below:

Greg Whitledge received his B.S. in Aquatic Biology from the University of Texas at Austin in 1993, and his M.S. and Ph.D. in Fisheries from the University of Missouri-Columbia in 1996 and 2001, respectively. His M.S. thesis investigated energy sources and ecological role of crayfishes in the Jacks Fork River, Missouri and his dissertation examined linkages between riparian shading and groundwater flows and bioenergetics of smallmouth bass and crayfishes in Ozark streams. After receiving his Ph.D., he spent one year as a Postdoctoral Research Associate at the University of Missouri working on a variety of projects in fish bioenergetics and large river fish ecology and two years as a Postdoctoral Fellow at Colorado State University studying non-native fishes in the upper Colorado River. In fall 2005, he entered his current position as a faculty member in the Center for Fisheries, Aquaculture, and Aquatic Sciences and Department of Zoology at Southern Illinois University. Dr. Whitledge's research interests include applications of stable isotopes in fisheries and aquatic sciences, fish bioenergetics and trophic interactions, fish-habitat relationships, aquatic invasive species, and sport fisheries management. Current and recent research projects in his lab include several applications of otolith and fin ray/spine chemistry as natural markers of fish environmental history. He teaches courses in fisheries management, ichthyology, advanced fisheries management, and stable isotopes in ecology. Greg has been a member of the American Fisheries Society since 2002 and a member of ILAFS since 2006. In his free time, he enjoys fishing (especially fly fishing and tying flies) and spending time with his wife and two daughters.



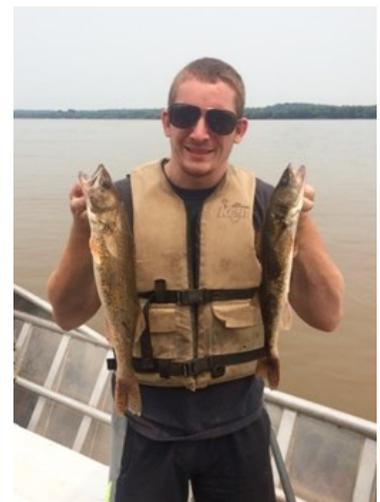


Snapshot of graduate student research at SIU, *Nick Abell, Devon Oliver, and Alex Loubere*

Calcified hard structures in fishes are a natural permanent tag that can be used to estimate age, as well as determine environmental history through analysis of trace element and stable isotope markers. The lifetime elemental tag in a hard structure can be linked to unique water chemical signatures in different systems. This can be used to determine natal origin, hatchery contribution (when a concern), natal dispersal, migration rates and growth differences between natal recruitment sources. Determining recruitment sources, dispersal rate and migration patterns and rates provides managers with empirical evidence to determine the spatial scale at which management actions should be conducted. Furthermore, determination of recruitment source and growth specific differences between systems will help inform where management action will be most beneficial.

Sauger and catfish (blue, channel and flathead) are recreationally important species to a number of states in the lower Ohio River drainage; additionally, catfish are commercially exploited. However, despite the popularity of these fisheries, relatively little is known about the life history of these species in terms of recruitment sources, tributary usage, and large-scale migration. Furthermore, the relative contribution of hatchery origin sauger that were stocked in tributaries to the population in the main river is unknown. Otolith microchemistry represents a mechanism by which all of these knowledge gaps can be filled. By analyzing the core of sauger and catfish otoliths, fish can be assigned origins based on unique chemical signatures of tributaries and main channel sections. Moreover, a cross section of the otolith can be analyzed to track movements through chemically distinct sections of the watershed throughout the individual's life. Finally, since hatchery water is chemically distinct from both tributary and main channel water, sauger that were born in the hatchery can be identified by analysis of otolith material that was grown before the fish was stocked.

Spotted bass are another popular sportfish within the Ohio River and its tributaries in southern Illinois. However, like catfish and sauger in the main stem of the Ohio river there is little information on the demographics, movement patterns, and recruitment sources of this species within lotic systems. Fin rays were used for our spotted bass study because fish sampling mortality was undesired by managers. Within the Ohio River watershed of southern Illinois, there are distinct differences in water chemistry parameters between the main river and tributaries that support spotted bass. Similar to our catfish and sauger studies, this will allow detection of fish movement between these systems, potentially indicating differences in seasonal system use, recruitment sources, and the degree of stock mixing.



Graduate students Nick Abell with a spotted bass, Devon Oliver with a flathead catfish, and Alex Loubere with two sauger.

Intersex condition in key recreational and commercial fish of the Illinois River, Jason DeBoer, Andrea Fritts, Mark Fritts, Madeleine VanMiddlesworth, and Andrew Casper, Illinois Natural History Survey

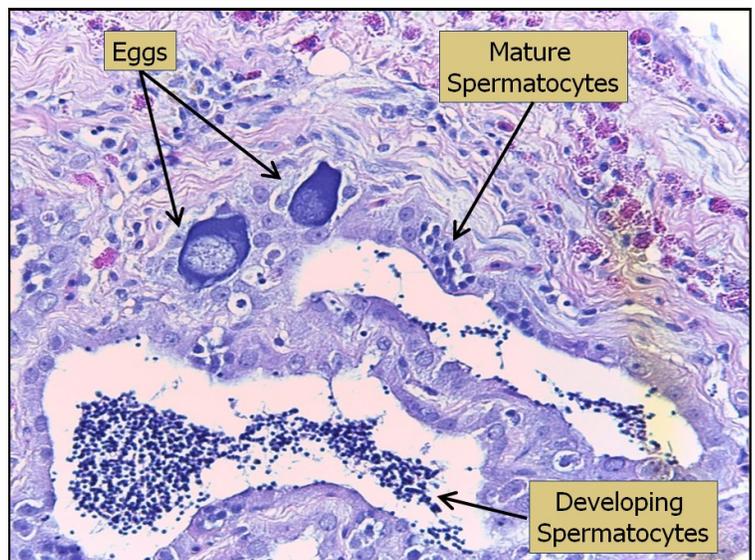
Environmental reforms – like the improved treatment of sewage brought about by the Clean Water Act during the last 50 years – have led to substantially improved water quality in the waterways of Illinois. During this same period, the Long-Term ElectroFishing (LTEF) program at the Illinois River Biological Station (IRBS) has documented a strong positive response from the native fish community, including increased diversity and abundance of native fish. Despite these observed improvements, emerging concerns are still developing in aquatic habitats, such as the presence of endocrine disrupting chemicals (EDCs) including hormones from municipal and agricultural sources, pharmaceuticals, and personal care products. The effects of increased exposure to EDCs could have significant implications for the sustainable management of recreationally and commercially valued fishes. In recent nationwide studies, one of the most commonly used biomarkers to assess the effects of EDCs on fishes is the presence of eggs in male fish testes (i.e., intersex condition). Studies in anthropogenically affected watersheds, where EDCs are common, are important to improving our understanding of the management implications of intersex condition.

Previous studies have indicated that Chicago-area streams have relatively high concentrations of EDCs; many of these streams feed eventually into the Illinois River Waterway. Thus, during spring of 2014, we launched a pilot study in the Dresden Island reach of the Illinois River, near Joliet, IL. Our objective was to survey the severity of intersex in male largemouth bass in an area directly affected by surface runoff and wastewater effluents from the Chicago Metropolitan Area. Largemouth bass are an important and valuable sportfish, and are also known to be very vulnerable to EDC exposure. We collected largemouth bass during April and May, when our probability of catching pre-spawn males – and therefore detecting intersex condition – would be greatest. Testicular tissue samples were processed by the Veterinary Diagnostic Lab at the University of Illinois-Urbana Champaign (UIUC).

We detected intersex in 21 of 51 (41%) male largemouth bass collected during 2014. Twelve of the 30 (40%) normal males (i.e., non-intersex) displayed external deformities or parasites, compared to 9 of 21 (43%) intersex males with external deformities or parasites. Interestingly, intersex males did not differ from normal males in length, weight, age, gonadal/somatic and hepatic/somatic indices of condition, or W_r . Although we observed no discernable differences in these metrics between intersex and normal males, we believe there could still be behavioral or reproductive differences that we did not study. A peer-reviewed manuscript of these results has been accepted, and will likely appear in the July 2016 edition of *American Midland Naturalist*. As a follow-up to our 2014 pilot data, we expanded the spatial and taxonomic resolution of our study during 2015.

During spring of 2015, we collected pre-spawn male largemouth bass, black crappie, and bluegill from the upper IL River and lower IL River, as well as from the Nature Conservancy's Emiquon Preserve. We detected intersex condition in all three species, though rates varied by species and location. We are currently working through landscape-scale analyses of the patterns we observed from 2015 samples, and a peer-reviewed manuscript is forthcoming.

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Intersex slide -- Microscopic view of stained and sectioned testis used for assessing severity of intersex. Note the presence of eggs, which are abnormal and indicative of intersex. Photo by Mark Fritts



Intersex condition in key recreational and commercial fish of the Illinois River
Jason DeBoer, Andrea Fritts, Mark Fritts, Madeleine VanMiddlesworth,
and Andrew Casper, Illinois Natural History Survey

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One of the important questions about EDCs is whether they affect all fish the same way. With the broad spectrum of life histories in our river fish assemblage – including abundant long-lived benthic feeders, large-bodied planktonic feeders, and piscivorous sportfish – as well as widely varied reproductive ecologies, routes of exposure and physiological response could be very diverse. Madeleine VanMiddlesworth, a graduate student working with professors in the Natural Resources and Environmental Science department from UIUC and IRBS staff, studied the reproductive ecology (including intersex condition) of two important commercial fish from the Illinois River – channel catfish and common carp. For these large-bodied fishes, whose exposure to EDCs most likely occurs via their benthic foraging in contaminated sediment, she observed rates of intersex much different than those of sportfish sampled in 2014 or described in the literature. Ms. VanMiddlesworth also surveyed the presence of vitellogenin, a female-specific protein often found in the blood of male fish that have been chronically exposed to estrogenic EDCs, which can also be used as a biomarker for EDC exposure. Much like the 2014 pilot-study fish, some of the fish she sampled during 2015 also displayed external deformations or parasites. Presently, Ms. VanMiddlesworth is compiling statistical models to understand the influence of land cover characteristics and metrics of permitted (NPDES) wastewater discharge on endocrine-related response variables in channel catfish and common carp. Ms. VanMiddlesworth's thesis and subsequent peer-reviewed manuscripts are forthcoming.

Although we are still elucidating likely management implications, the collective results and implications of these three companion studies highlight the importance of monitoring the aquatic health of Illinois River fish populations, encompassing a spectrum of physiological adaptations and reproductive strategies.



In memorial of Roland Steinhouser, *Ray Thompson*

I first met Rol in the late 70's, when I was a member of the Chicagoland Muskies Hunters, a local chapter of Muskies, Inc. Rol was the President of Midwest Musky Club. A few years after we met, Rol approached me with a novel idea. Muskie fishing was new to Illinois and, along with Don Griffen, the secretary of Midwest Musky, Rol proposed that we form a new club. The new club would be made up of not individual people but rather all of the muskie clubs in Illinois. The new club would bring a unified voice in dealings with the then, Illinois Department of Conservation.

After some time, we proposed a set of By-Laws, approached all of the organized muskie clubs in Illinois, incorporated as a non-profit organization and the Illini Muskies Alliance was born in the fall of 1982. We elected a Board of Directors, with Rol the 1st Chairman of the IMA.

Through the years that followed, we solidified our position with the state and donated thousands of dollars, manpower and ideas to the blossoming fishery. No matter the size of the club, our efforts were combined into a body that truly represented the best interests of not only muskie fishermen, but all Illinois fishermen in general.

Rol was a natural, having served in the Chicago Public School system for years. Later Rol also worked with the Urban fishing Program, teaching future generations his love of fishing. Rol was someone you could count on to get a needed job done right. With his wife Peggy (Peg) at his side, Rol was at home exploring new muskie waters, or fishing a local Forest Preserve lake for bluegills.

Rol was one of a handful of pioneers in the Illinois fishery. We all owe a debt of gratitude for Rols' foresight, thoughtfulness and generosity

He will be missed.



Rol Steinhouser