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President’s Message, *Blake Ruebush*

Greetings IL AFS Members. Thank you for the opportunity to serve as your 2020 IL AFS Chapter President. It is certainly an honor to represent our organization, and I look forward to working with our membership in this capacity over the next year. I would especially like to thank the previous officers for their service to the Chapter and for their work in fisheries science in Illinois. I have enjoyed working with and learning from Phil Willink and other Past-Presidents that have served the chapter. It’s great to have Joe Parkos back in Illinois, and we welcome him as the incoming IL AFS Secretary.

The IL AFS Chapter is a group that I have been proud to be a part of since joining in 2006. I was introduced to IL AFS as an undergraduate while attending the University of Illinois. At that time, it was intimidating for me to attend what felt like a large meeting of 100-150 professionals and students. Little did I know, 100 people at a meeting is not that many, fisheries is a relatively small field, and the professionals are generally excited and willing to talk to students. Attending meetings and getting involved as an undergraduate certainly opened my eyes to ongoing fisheries management/research opportunities in Illinois which have benefited my fisheries career.



I was pleased to see the strong participation of Illinois undergraduate and graduate students at the 80th Midwest Fish and Wildlife Conference (MWFWC). Our chapter was well-represented by students that presented research and/or participated in meeting activities. Many students took advantage of the Student/Professional Networking Luncheon which allowed over 200 students and nearly 100 professionals to engage and discuss fish and wildlife career options for the Illinois students!

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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: Blake Ruebush

President-Elect: Karen Rivera

Secretary: Joe Parkos

Treasurer: Rich Lewis

Past President: Phil Willink

Excom Members at Large: Rebekah Anderson, Seth Love

Committee Chairpersons:

Archival: Nathan Grider

Arrangements: Phil Willink

Awards: Tad Lochner

Continuing Education: Ben Lubinski

Environmental Concerns: Nathan Grider

IL Environmental Council: Diane Shasteen

IL Wildlife Action Team: Trent Thomas

Membership: Blake Bushman

Newsletter: Brian Metzke/Jason DeBoer

Raffle: Rebekah Anderson/Claire Snyder

Resolutions: Rob Hilsabeck

Student Concerns: Dan Grigas

Student Subunits:

Eastern Illinois: Rueben Frey

Southern Illinois: Dominique Turney

University of Illinois: Patrick Wilson

Western Illinois: Kenning Bruening

Website: Brian Metzke

NCD Committee Reports Representatives:

Centrarchid: Andrya Whitten

Esocid: Joe Parkos

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, Blake Bushman (blake.bushman@illinois.gov), for more information.

President's Message, continued from page 1, *Blake Ruebush*

I would be remiss if I didn't thank the MFWFC Executive Planning Committee for their efforts planning the 80th MFWFC. I'd especially like to thank our fisheries colleagues; thank you Ann Marie Holtrop, Mike McClelland, and Greg Whitlege. Many other IL AFS members served on committees and helped with various events. Thank you all for your assistance in making this meeting a success!

Our Annual Business Meeting went well as usual. We were fortunate to have three special guests in attendance – Scott Bonar (National AFS President), Jeff Kopaska (North Central Division President), and Doug Austen (National AFS Executive Director). It was great to hear from our National AFS Leadership about AFS efforts going on across the Nation. Thank you to all our committee chairs for presenting reports and updates to the Chapter. Our student subunits gave wonderful reports on fisheries activities going on at their campuses. Clearly the subunits are doing some great work, and they did an outstanding job soliciting donation items for the annual raffle. Wow! This year was likely the best year yet! We (IL AFS) raised \$7,600 for student travel grants and awards. The raffle was a joint effort between TWS and AFS, however we proportionally split the profits based on the donations brought in by each group. Thank you to Rebekah Anderson and Claire Snyder for organizing the raffle.

The Business Meeting is an opportunity for us to recognize professionals and students for the great work they are doing. We awarded Rich Lewis the IL AFS Meritorious Service Award. Rich Lewis has served as our Treasurer for several years now and he has been a dedicated member of our Chapter. Hailey Capone (UIUC) was awarded the Best Student Poster Award, and Dakota Radford (EIU) was awarded the Best Student Paper Award. I'd like to point out that Dakota also won the 2019 Best Student Paper Award. Winning the Best Student Paper Award back-to-back years is quite an accomplishment! Congratulations to all of the students that were recipients of travel grants and awards (See list further down in this newsletter). Thank you, Dan Grigas, for coordinating and presenting the awards and scholarships at the annual meeting.

Before long you will hear about an upcoming workshop that Ben Lubinski is planning. The topic will be 'Small Impoundment Management' and the workshop will be held in June. This workshop will be classroom and field-based and should offer some great learning opportunities for new biologists and students. I'm hopeful that some of the presentations from the workshop can also be presented at the 2021 IL AFS Meeting as part of the Management Presentation section. Planning for the 2021 IL AFS meeting is ongoing. We know it will be held in the North, however we are trying to decide between two locations. More details will come regarding next year's meeting.

As we move into 2020, I hope everyone is excited about a safe and successful field season. If there is any way that I can better serve you or the Chapter, please reach out to me with your ideas. Good luck fishing!

Sincerely,
Blake Ruebush

2020 Midwest Fish and Wildlife Conference Recap, *Brian Metzke, IDNR*

This year's Chapter meeting was held in conjunction with the Midwest Fish and Wildlife Conference. More than 700 fish and wildlife professionals and students met in Springfield, Illinois, and 332 scientific presentations were delivered to attendees. Illinois was well represented with 40% of all presentations provided by Illinoisans.

At the annual Chapter business meeting members received AFS and NCD updates from AFS President Scott Bonar, Executive Director Doug Austen and NCD President Jeff Kopaska. Blake Ruebush officially ascended to the Chapter Presidency as Phil Willink stepped down. Rich Lewis received a Chapter Meritorious Service award for providing years of stability at the Chapter Treasurer position.

The raffle this year was a joint effort between AFS and TWS, and it was a smash success, raising approximately \$7,000 for ILAFS student awards. A big thanks to all those who donated items, helped with the set-up and running of the event, and to our student subunits who assisted with ticket sales. This year, Southern Illinois University won the subunit competition for greatest value of donated raffle items. Bringing in approximately \$6,400 in donations, this was SIU's first win since winning the inaugural student competition in 2011.

Thanks to all those that planned, participated in and attended the 2020 meeting.



Blake Ruebush leading the annual meeting.



Mr. Lincoln visits with MFWC attendees

Meet Your New ExComm Member

Joe Parkos is an aquatic ecologist with the Illinois Natural History Survey (INHS), the Field Station Director of the Kaskaskia, Ridge Lake, and Sam Parr Biological Stations, and affiliate faculty at the University of Illinois at Urbana-Champaign (UIUC). He earned a B.S. in Biology from the University of Connecticut and M.S. and Ph.D. degrees in Biological Sciences and Animal Biology from UIUC. Prior to joining the INHS as a Field Station Director, Joe held positions as a fisheries technician with the Connecticut Department of Environmental Protection (since renamed Department of Energy and Environmental Protection) and as a postdoctoral research associate at Florida International University. Joe has worked in various capacities within the field of fisheries science for over 20 years and currently conducts research on the ecological underpinnings of effective conservation, restoration, and fisheries management. In his role as an INHS research scientist, he mentors graduate students and collaborates with scientists at other universities and biologists from county, state, and federal agencies.

2020 Best Student Presentation Awards, Dan Grigas

Dozens of student presentations were delivered by student of Illinois Universities at the 2020 Midwest Fish and Wildlife Conference. Thank you to all the participants and judges. Winners of the student awards are:

Dakota Radford, Lewis L. Osbourne Best Student Paper Award, Eastern Illinois University. “Relative precision of hard structures for estimating Blue Sucker ages and demographics.”

Hailey Capone, Best Student Poster, University of Illinois at Urbana-Champaign. “Metabolic recovery of fish in turbulent flow following exhaustive exercise.”

Western Illinois University Student Receives the Fenske Award, *Blake Ruebush*

Congratulations to Dominique Turney, Western Illinois University, for being awarded the Janice Lee Fenske Memorial Award at the 80th Midwest Fish and Wildlife Conference!

The Janice Lee Fenske Memorial Award was created in 2005 to recognize undergraduate and graduate students for their achievements in the field of fisheries or wildlife management. Each year, up to 25 Fenske Memorial Award finalists are selected based on their enthusiasm to protect fisheries and wildlife resources through management activities, selflessness and motivation to teach others, interest in professional involvement, integrity, positive attitude, and compassion. This award presented by Rebecca Krogman, Iowa Department of Natural Resources.



Spotlight on Graduate Student Research, *Dominique Turney, WIU*

Hello, my name is Dominique Turney! I am a Hoosier native navigating my way around the Land of Lincoln. I graduated from Purdue University in May 2016 with dual degrees in Wildlife Science and Fisheries and Aquatic Sciences. Currently, I am a master's student in Dr. Jim Lamer's Aquatic Ecology Lab at Western Illinois University, and I have a position with the Illinois Natural History Survey-Illinois River Biological Station as a Large River Fisheries Ecologist. My main research interests include large river ecology, invasive species management, and spatial ecology although I am always eager to learn something new!

My thesis research project at Western Illinois University is entitled "Paddlefish Frequency and Timing of Dam Passage in the Upper Mississippi River (Pools 14-19)". The focus of our project is to document passage frequency and timing of paddlefish (*Polyodon spathula*) at Lock and Dams (LD) 14-19 on the Upper Mississippi River using acoustic telemetry. The Upper Mississippi River (UMR) has changed drastically over the past century with the construction of navigational dams and has ultimately affected the way endemic fish species migrate through these barriers. By the 1940s, a system 29 navigational locks and dams were built on the UMR for the main purposes of transportation and navigation. Each lock and dam differ in design and the percentage of time it experiences open river conditions, or when spillways overflow and dam gates are raised from the water. Dams that experience more frequent open river conditions have been shown to have the highest rates of fish passage. Other factors that contribute to fish passage success include fixed-crest spillways, frequency of lock chamber openings, and dam gate composition. Given the unique design and passage opportunity of each navigation dam, our study aims to understand how fish are overcoming these obstacles to complete their life cycle requirements.

Although several studies have documented paddlefish movement and habitat use in the Mississippi River basin, there is lacking literature in the second reach of the UMR. This region is particularly important as it is home to three of our most restrictive dams, LD 14, 15, and 19. These pinch-points are infrequently at open river conditions which restricts the opportunities for fish to traverse these dams. It is critical to under-



Spotlight on Graduate Student Research, *continued from page 8*

stand how paddlefish are navigating these barriers to complete migration and spawning requirements. Findings from our study will provide preliminary data that will inform river managers on the effect of navigational dams on native and nonnative migratory species as well as play an important role in determining potential effects of fish deterrent technology at navigational dams in the UMR.

We acoustically tagged 121 paddlefish with Vemco V16 transmitters in June and July 2018 in Pool 14 (N=59) and Pool 16 (N=62). We manually tracked with Vemco VR100 receivers to assess habitat use and electivity in our study area. We utilized the stationary and real-time receiver networks provided through our partnerships with state and federal collaborators to collect most of our information on our paddlefish movements. We were able to identify the timing and frequency of passage from this extensive telemetry network.

We detected 118 of our 121 acoustically-tagged paddlefish between our manual and stationary receivers from September 2017 to November 2019 and we recorded over 2 million detections of our paddlefish. We observed 261 successful passages over dams occurring among 44 individuals. Eleven paddlefish dispersed outside our study area into Pools 4 through 12 in Spring 2019 during the spawning period. We observed three individuals moved into Pool 4 in Lake Pepin, MN in Spring 2019 and have overwintered in this pool. The furthest linear distance we observed our paddlefish traveling was 303.7 RM from Pool 16 to Pool 4 around April 2019!

The next steps in our research project are to model the hydraulic, physiological, and environmental conditions associated with the passage of paddlefish through Dams 14 through 19. We will also focus on the VEMCO Positioning System (VPS) array located at LD 15 to collect data on environmental conditions associated with passage through the lock chamber and gain insight on challenge events and residency times. In addition to my thesis research, my second project is entitled "Assessing Spatial Overlap Among Two Asian Carp and One Native Planktivorous Species in The Upper Mississippi River". Our study aims to quantify the degree at which these invasive planktivorous species compete by assessing their spatiotemporal overlap with paddlefish. Through this study, we hope to continue adding to our understanding of the direct and indirect interspecific competition that may occur between native and aquatic invaders in our riverine system.

I would like to extend special recognition to Dr. Jim Lamer for providing me an opportunity to work on this special project and grow as a biologist. I would like to acknowledge the UMR Asian Carp Partnership and IL AFS for your assistance in funding my research endeavors. Many thanks to USGS-UMESC, USFWS, IL DNR, MDC, and MN DNR for your support in providing stationary receiver data through our telemetry network partnership. Thanks to many undergraduates and graduate students at Western Illinois University for spending long hours on the river with me collecting manual tracking data. This project would not be possible without the support and encouragement of these partners. We hope to submit our thesis in May and submit a publication to a journal soon afterward, so be on the lookout!

Announcement: Continuing Education Opportunity

The IL AFS Continuing Education Committee is developing a continuing ed workshop, “**Management of Small Impoundments**”. The intended audience for this workshop will be early fisheries professionals, graduate students, and district biologists. For this workshop, the term ‘small impoundments’ will refer to any lake or pond, public or private, less than 100 acres. The workshop will be 2 days.

When: June 9-10, 2020

Day 1 will consist of classroom discussion and presentations. Location will be Jacksonville Area Convention & Visitors Bureau in Jacksonville, IL. Topics to be covered will include but not be limited to: pond construction and watershed consideration, stocking rates, regulations, aquatic vegetation management, how to evaluate and assess your water body, corrective measures, and case studies. Presentations and discussions will be led by various biologists from IL that have agreed to help participate in this workshop.

Day 2 will consist of a field day at Jim Edgar Panther Creek State Fish and Wildlife Area (about a 20-30min drive from Jacksonville). We will discuss and demonstrate herbicide applications. Using electrofishing and netting demonstrations, we will evaluate current fish assemblages in 2-3 different lakes and discuss current and future management of those lakes.

Additional details will be provided soon...



Announcement: Save the Date

The 2021 Annual IL AFS meeting is scheduled for March 10-12, 2021, at the Holiday Inn Gurnee Convention Center in Gurnee, IL.

This will be a joint meeting with the Illinois Lake Management Association.
<https://www.ihg.com/holidayinn/hotels/us/en/gurnee/chiwg/hoteldetail>

