



AMERICAN FISHERIES SOCIETY

146TH

Annual Meeting, August 21-25

WWW.2016.FISHERIES.ORG

Welcome To Kansas City!





Download the AFS Annual Meetings MOBILE APP!

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- Stay organized with up-to-the-minute Exhibitor, Speaker, and Event information
- Sync the app across all of your devices with Multi-Device Sync
- Receive important real-time communications from AFS
- Build a personalized schedule and bookmark exhibitors
- Take notes and download event handouts and presentations
- Rate the sessions you attend and comment on them, too
- Locate sessions and exhibitors on the host venue maps
- Find attendees and connect with your colleagues through
- Stay in-the-know and join in on social media with #AFS146
- And much, much more!



SEARCH: The App Store or Google Play for "AFS Annual Meetings"

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For All Other Device Types (including BlackBerry, Windows, and all other web browser-enabled devices): While on your smartphone, point your mobile browser to **m.core-apps.com/afs_2016** to be directed to the proper download version for your device.

Platform Compatibility: Android v4x+ and iOS v7x+

Should you have any questions, please contact support@core-apps.com



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Welcome to Kansas City 2016!



Welcome to Kansas City and the 146th Annual Meeting of the American Fisheries Society. Our state's nickname is the Show Me State and is usually traced to an 1899 speech by Willard D. Vandiver, a Missouri Congressman who said "I come from a country that raises corn, cotton, cockleburs, and Democrats. I'm from Missouri, and you've got to show me." We still raise corn and cotton in "good" years, cockleburs in "bad" years, and having a major election in 2016 there seems to be a surplus production of politicians from every party this year. So on behalf of the planning committee for the 146th Annual Meeting of AFS, we hope to "Show You" something that is informative and educational, as well as a great time. Finally, if you happen to see one of the meeting sponsors or a member of the planning committee, please "Show Them" your appreciation. This event would not have happened without their support and efforts.

Vince Travnichek 2016 AFS General Meeting Chair



AFS President's Welcome



I am honored to welcome you to the 146th annual meeting of the American Fisheries Society. The only other annual AFS meeting held in Kansas City was 50 years ago in 1966. So please keep this golden anniversary spirit in mind as you enjoy this fine city and the outstanding networking events expertly arranged by the local organizing committees.

The three invited plenary speakers will be focusing on the meeting theme "Fisheries Conservation and Management: Making Connections and Building Partnerships." Dr. Hal Schramm, Ms. Danielle Brigida, and Dr. Zeb Hogan will each touch on ways to communicate fisheries information to a variety of audiences. This meeting will feature separate short plenary sessions on each of the first three mornings with these speakers and awards presentations. Feel free to let me, other AFS officers, or AFS staff know your thoughts on this format versus the traditional single plenary session.

Please refer to the Schedule at a Glance (p.12) to plan your week ahead. There are a wide variety of continuing education classes and Section meetings that allow a deep dive into your favorite discipline. After the plenary sessions, there are 32 symposia and a total of over 700 technical presentations on fisheries science from high elevation streams to offshore marine waters around the globe. There are about 100 scientific posters set up during the week and an opportunity to chat with their authors at the trade show and poster social. And by all means, visit with the many vendors and organizations at the booths in the trade show during the week. Finally, please consider attending the business meeting which will feature many more AFS awards presentations.

So take full advantage of the terrific venue, enriching fisheries science sessions, and fabulous social networking events during your time in Kansas City. I sincerely hope that this meeting is enjoyable and allows you to make connections and build partnerships for your fisheries work ahead.

Ron Essig American Fisheries Society President

AFS 2016 TEAM

AFS President

Ron Essig

General Meeting Chair

Vince Travnichek

Program Co-Chairs

Quinton Phelps

Sara Tripp

North Central Division President

Melissa Wuellner

Missouri Chapter President

Greg Pitchford

PROGRAM

Quinton Phelps (Co-Chair)

Sara Tripp (Co-Chair)

Abigail Archer (Co-Chair)

Heather Garrison

Craig Paukert

Cari-Ann Hayer

Jacob Westhoff

Paul Michaletz

Iodi Whittier

Zach Ford

4 1 75

Andy Turner

ARRANGEMENTS

Travis Moore (Chair)

Denise Spencer (Staff)

Daniel Cassidy (Staff)

Megan Halford

Denise Otto

Jake Allman

Michelle Dalbey

Jake Colehour

Greg Pitchford

Jerry Wiechman

Jennifer Campbell

COMMUNICATIONS

Kat Lackman (Chair)

Amy Meier

Ange Corson

Alex Prentice

Paul Spurgeon

Eric Rahm

Blake Stephens

John Frantz

Kerrie Delanev

April Perry

April Perry

Yvonne Heerlein

Scott Ryan

NETWORKING

Wes Swee (Chair)

Kyle Winders

Kasey Whiteman

Mark Miller

Ioe McMullen

Darby Niswonger

Tom Whelan

James Civello

Ben Havens

Tory Mason

Mike Allen

Bob Distefano

Jen Girondo

Mike Bayless

Shane Bush

Clint Hale

Paul Cieslewicz

MASTER SCHEDULER

Kathi Moore

PRINTED PROGRAM

Kurt West (Staff)

TRADESHOW

Shawn Johnston (Staff)

AFS STAFF

Douglas Austen (Executive

Director)

Beth Beard

Thomas Bigford

Daniel Cassidy

Katrina Dunn

Iuanita Flick

Sarah Harrison

Laura Hendee

Mohammed Hossain

Shawn Johnston

Debby Lehman

Aaron Lerner

Jackie Machado

Jessica Mosley

Cynthia Oboh

Taylor Pool

Eva Przygodzki

Jasmine Sewell

Denise Spencer

Kurt West

Howard Williams

Martha Wilson

GETTING STARTED

REGISTRATION

Registration kiosks will be located in the **Terrace** on the Mezzanine Level of the **Sheraton Hotel** from Saturday through Thursday. Hours for registration are:

Saturday, August 20 12:00 PM - 6:00 PM

Sunday, August 21 10:00 AM – 6:30 PM

Monday, August 22 7:00 AM - 6:00 PM

Tuesday, August 23 7:00 AM - 6:00 PM

Wednesday, August 24 7:00 AM – 5:00 PM

Thursday, August 25 7:30 AM – 12:00 PM

Registration participants are required to wear their badges for all conference events. If you lose your badge, please return to Registration to receive a new one.

INFORMATION BOOTH

If you have questions about the meeting, or Kansas City in general, the Information Booth is your source. The Information Booth will be located near Registration in the Terrace, Mezzanine Level of the Sheraton Hotel.

INTERNET ACCESS

Internet Access is available in the Convention Center (Exhibit Hall A and B) and in your hotel room free of charge.

AFS has contracted with the Conference Exchange (CONFEX) for program and scheduling support. CONFEX provides and maintains a complete searchable program listing on the meeting website (2016.fisheries. org). Because of the size of the program, and in an effort to minimize our environmental impact, only the scheduling information is provided in this program guide. Abstracts for all oral presentations and posters and the full list of authors are included online as well as on the AFS Annual Meetings mobile app. The Program Committee will update the program listing throughout the meeting as changes occur.

Our attendees can also use the AFS Annual Meetings mobile app by Core-apps to view and schedule all other meeting activities on their laptops, tablets, or Apple and Android mobile phones. From the mobile app you

can browse and select the workshops, meetings, and events that you plan to attend. The AFS Annual Meetings mobile app can be downloaded to your phone from Google Play or the Apple Store; simply search for "AFS Annual Meetings" to find the app. Once downloaded, you will not need Internet service to access the app.

INSTRUCTIONS FOR PRESENTERS AND MODERATORS

Presenters should be aware that talks are to last 15 minutes, with the remaining 5 minutes allocated to questions and for room changes (total of 20 minutes).

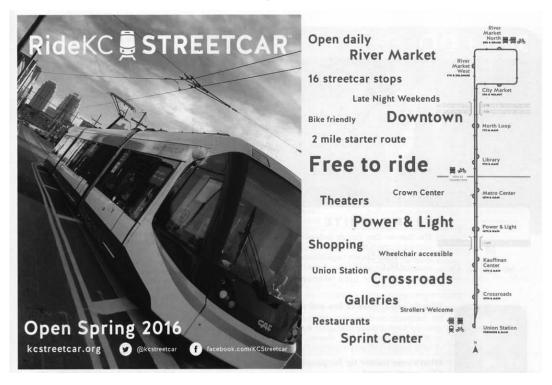
Moderators are responsible for ensuring that talks start and end on time. Detailed instructions for moderators will be posted on each podium.

Computers and projectors are provided in each presentation room. Each room is equipped with a podium, LCD Projector (1024x768), Laptop with pre-loaded oral presentation files, Projection Screen, Laser Pointer, Podium Microphone, and PCDI for Computer Audio. Information about room size can be found on the Sheraton Kansas City and Crown Center website: http://www.sheratonkansascityhotel.com/floor-plans

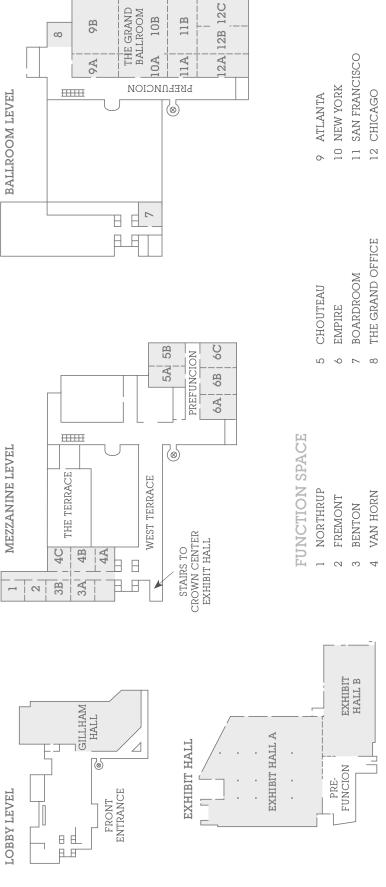
Presentations are saved on computers that are set up in each presentation room in the early morning and remain the entire day there: this means all presentations must be loaded no later than the day before your talk. You cannot use your personal computer for presentations.

TRANSPORTATION AROUND KANSAS CITY

RideKC Streetcar is free public transportation to various venues utilized by the conference. For more information about RideKC Streetcar: http://kcstreetcar.org/about-streetcar/

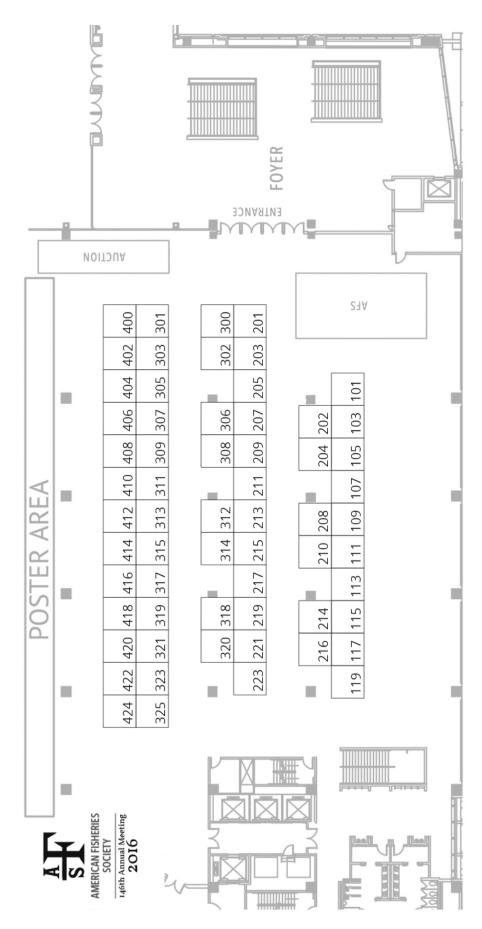


MAPS

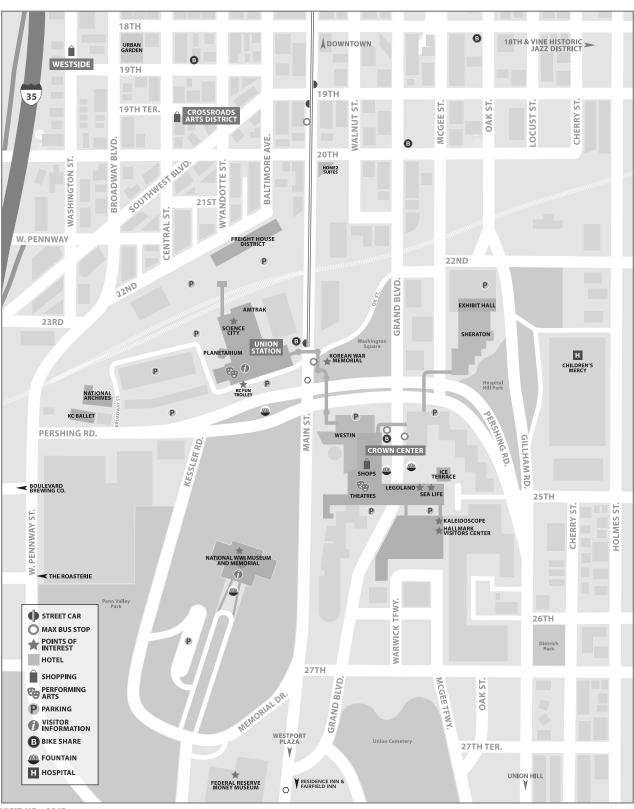


SHERATON FLOOR PLAN

EXHIBIT/TRADESHOW MAP



CROSSROADS/CROWN CENTER



VISIT KC • 2015

SCHEDULE AT A GLANCE

Last updated July 20, 2016

See http://2016.fisheries.org/events-2/ or check the mobile meeting app for the most current schedule. All events take place in the Sheraton Crown Center unless otherwise noted.

Friday August 19

Time		Event	Room
8:00 AM	12:00 PM	AFS Officers Meeting (Invitation Only)	Presidential Suite
1:00 PM	5:00 PM	Management Committee Meeting	Fremont
Saturday Aug	gust 20		
Time		Event	Room
7:30 AM	5:00 PM	AFS Governing Board Meeting	Chouteau A/B
8:00 AM	12:00 PM	Continuing Education - Electrofishing I: Power-Based Standardization in Electrofishing	Gillham Hall
8:00 AM	12:00 PM	Continuing Education - NEW! Imaging Technologies in Fisheries: Side Scan Sonar in Management and Research	Chicago B
8:00 AM	5:00 PM	Continuing Education - Age and Growth Analysis with R	Chicago A
8:00 AM	5:00 PM	Continuing Education - Bayesian I: Intro to Bayesian Inference Using Gibbs Sampling (BUGS) for Fish Biologists	Chicago C
8:00 AM	5:00 PM	Continuing Education - Beginning and Intermediate GIS for Fisheries Scientists	University of Central Missouri (shuttle)
12:00 PM	6:00 PM	Registration and Information	The Terrace
1:00 PM	5:00 PM	Continuing Education - Electrofishing II: Electrofishing Equipment Operations and Troubleshooting	Gillham Hall
5:00 PM	6:00 PM	AFS Governing Board Reception (Invitation Only)	Chouteau A/B

Sunday August 21

Time		Event	Room
8:00 AM	12:00 PM	Continuing Education - Human Dimensions and Conflict Resolution in Fisheries	Chicago B
8:00 AM	12:00 PM	Continuing Education - Leadership at All Levels in AFS (FREE)	New York B
8:00 AM	5:00 PM	Continuing Education - Bayesian II: Intermediate Bayesian Inference Using Gibbs Sampling (BUGS) for Fish Biologists	Chicago C
8:00 AM	5:00 PM	Continuing Education - Bioenergetics	Chicago A
10:00 AM	6:00 PM	Speaker Check-in and AV Loading	Van Horn A
10:00 AM	6:30 PM	Registration and Information	The Terrace
12:00 AM	2:30 PM	Journal Editors Luncheon (Invitation Only)	Fremont
1:00 PM	2:30 PM	Fisheries Administration Section Meeting	Chouteau A/B
1:00 PM	5:00 PM	Continuing Education NEW! - Fisheries Information Network System (FINS) Application and Analysis Tools	Chicago B
1:00 PM	5:00 PM	Continuing Education - Scientific Publishing and Communications (FREE)	New York B
2:00 PM	5:00 PM	Fish Culture Section Meeting	Van Horn B
2:00 PM	6:00 PM	Tradeshow Exhibit Move-in	Exhibit Hall A
2:30 PM	3:30 PM	Fisheries Administration and Fisheries Management Sections Joint Meeting	Chouteau A/B
3:30 PM	5:00 PM	Fisheries Management Section Meeting	Chouteau A/B
3:30 PM	6:00 PM	Mississippi Interstate Cooperative Resource Association (MICRA) Meeting	Van Horn C
4:00 PM	5:00 PM	Imperiled Aquatic Species Section Meeting	Empire B
4:00 PM	6:00 PM	Estuaries and Marine Sections Joint Meeting	Benton A
4:00 PM	6:00 PM	Poster Set-up	Exhibit Hall A
5:00 PM	7:00 PM	Education Section Meeting	Empire A

Sunday August 21

Time		Event	Room
6:00 PM	9:30 PM	Welcome Networking Event and Aquarium	Crown Center Square and Sea Life Aquarium
Monday Au	gust 22		
Time		Event	Room
7:00 AM	6:00 PM	Registration and Information	The Terrace
7:00 AM	6:00 PM	Speaker Check-in and AV Loading	Van Horn A
7:00 AM	8:00 AM	Plenary Speakers Breakfast (Invitation Only)	Fremont
7:30 AM	9:00 AM	Tradeshow Exhibit Move-in / Poster Set-up	Exhibit Hall A
8:00 AM	9:20 AM	Plenary (Dr. Hal Schramm) and The Carl R. Sullivan Fishery Conservation Award Presentation	Exhibit Hall B
9:00 AM	8:30 PM	Tradeshow Open and Cyber Café	Exhibit Hall A
9:40 AM	11:40 AM	Genetics (Contributed Papers)	Chicago C
9:40 AM	2:20 PM	Fisheries Management from the Great Lakes to the Gulf: Sea Grant's Role in Research, Outreach and Building Partnerships along the Mississippi River (Symposium)	Van Horn B
9:40 AM	3:00 PM	Sturgeon and Paddlefish (Contributed Papers)	Chicago B
9:40 AM	4:00 PM	Management Strategy Evaluation, Decision Analysis, and Ensemble Modeling: Tools for Addressing Assessment and Management Uncertainty (Symposium	Van Horn C
9:40 AM	4:40 PM	Pop-Up Satellite Tagging - Challenges and Solutions (Symposium)	Empire B
9:40 AM	4:40 PM	Documented and Documenting the Effects of Climate Change on Inland Fish and Fisheries (Symposium)	Empire C
9:40 AM	5:00 PM	Best Student Paper and Poster (Symposium)	Chouteau A
9:40 AM	5:00 PM	Ecological Flow Science and Policy: Protecting Stream Systems Today; Preparing for Tomorrow (Symposium	New York A

Monday August 22

Time		Event	Room
9:40 AM	5:00 PM	Effects of Diploid Grass Carp and State Grass Carp Stocking Policies on Aquatic Ecosystems (Symposium)	New York B
9:40 AM	5:00 PM	Angling for Dinosaurs: Status and Future Study of the Ecology, Conservation and Management of Ancient Fishes (Symposium)	Chicago A
9:40 AM	5:00 PM	Fish Research and Conservation in the "Scapes": Needs, Progress, Challenges, and Opportunities (Symposium)	Empire A
9:40 AM	5:00 PM	Reservoir Fisheries Habitat Restoration: Innovative Techniques to Restore Habitat in our Nation's Impoundments (Symposium)	Atlanta
9:40 AM	5:00 PM	Cooperative Fisheries Research in Marine and Freshwater Systems: From Policy to Practice (Symposium)	Chouteau B
12:00 PM	1:00 PM	Socioeconomics Section Meeting	Boardroom
12:00 PM	2:00 PM	Equal Opportunities Section Meeting and Luncheon (Invitation Only)	Benton A/B
12:30 PM	2:30 PM	Plenary Speakers & Award Recipients Luncheon (Invitation Only)	Exhibit Hall B
1:00 PM	5:00 PM	Global Importance and Threats to Floodplain Fisheries: Potential Mitigation Measures to Reconnect Floodplains, Including Synergistic Benefits of Working with other Water Resource Sectors (Symposium)	Chicago C
2:20 PM	5:00 PM	Translating Essential Fish Habitat (EFH) Science into Fishery Management Decisions (Symposium)	Van Horn B
3:00 PM	5:00 PM	Fisheries Information and Technology Section Meeting	Benton B
3:00 PM	5:00 PM	Missouri Chapter of AFS EXCOM Meeting	TBD
3:20 PM	5:00 PM	Sampling Strategies (Contributed Papers)	Chicago B
3:30 PM	5:30 PM	Journal Editorial Board Meeting	Fremont
4:00 PM	5:00 PM	Water Quality Section Meeting	Benton A

Monday August 22

Time		Event	Room
4:00 PM	5:00 PM	Hutton Oversight Committee Meeting	Boardroom
5:30 PM	6:30 PM	Genetics Section Meeting	Chouteau A
5:30 PM	7:00 PM	Michigan State Fisheries & Wildlife Alumni and Friends Social	Empire A
5:30 PM	7:30 PM	Introduced Fishes Section Meeting	Van Horn C
6:00 PM	8:30 PM	Tradeshow and Poster Networking Event	Exhibit Hall A

Tuesday August 23

Time		Event	Room
7:00 AM	6:00 PM	Registration and Information	The Terrace
7:00 AM	6:00 PM	Speaker Check-in and AV Loading	Van Horn A
8:00 AM	9:20 AM	Plenary (Danielle Brigida) and Meritorious Service, Excellence in Fisheries Education, 2016 Fellows, and Emmeline Moore Prize Presentations	Exhibit Hall B
9:00 AM	6:00 PM	Tradeshow Open and Cyber Café	Exhibit Hall B
9:30 AM	11:30 AM	AFS—Future of the Nation's Fisheries: Recommendations for Next President	Benton A
9:30 AM	12:30 PM	Missouri Department of Conservation Walleye Planning Team Meeting	Boardroom
9:30 AM	4:00 PM	Wild Jobs Café	Exhibit Hall B
9:30 AM	5:00 PM	Mississippi Interstate Cooperative Resource Association (MICRA) Meeting	Benton B
9:40 AM	11:40 AM	Stephen Weithman: His Life Honored Through the Student Award (Symposium)	Chicago B
9:40 AM	1:00 PM	Actions to Increase the Engagement of Underrepresented Minorities in Fisheries and Aquatic Sciences (Symposium)	New York A

Tuesday August 23

Time		Event	Room
9:40 AM	1:40 PM	Cooperative Fisheries Research in Marine and Freshwater Systems: From Policy to Practice (Symposium)	Chouteau B
9:40 AM	2:20 PM	Reservoir Fisheries Habitat Restoration: Innovative Techniques to Restore Habitat in our Nation's Impoundments (Symposium)	Atlanta
9:40 AM	4:00 PM	Hatchery Fish Biologist A Career for the Future (Symposium)	Van Horn B
9:40 AM	5:00 PM	Fisheries Science in 140 Characters: The Role of Social Media in Our Science (Symposium)	Chouteau A
9:40 AM	5:00 PM	Interactions Between Hydrology and Nonnative Aquatic Species (Symposium)	Empire C
9:40 AM	5:00 PM	Freshwater Fisheries Management (Contributed Papers)	Chicago A
9:40 AM	5:00 PM	Movement and Aquatic Organism Passage (Contributed Papers)	Chicago C
9:40 AM	5:00 PM	Managing Centrarchid Fisheries in Rivers and Streams (Symposium)	New York B
9:40 AM	5:00 PM	An Examination into Influencing the Future of Angling Participation to Sustain Conservation Support (Symposium)	Empire A
9:40 AM	5:00 PM	Release and Discard Mortality Estimation: Lessons from Freshwater and Saltwater Environments (Symposium)	Empire B
12:00 PM	2:00 PM	Best Student Paper and Poster Judges Luncheon (Invitation Only)	Van Horn C
12:00 PM	2:00 PM	World Council of Fisheries Societies Luncheon (Invitation Only)	Fremont
1:00 PM	4:40 PM	Blue Catfish: Lessons from a Large Riverine Opportunistic Catfish (Symposium)	Chicago B
1:40 PM	5:00 PM	Inland Drivers of Coastal Hypoxia (Symposium)	Chouteau B
2:30 PM	3:30 PM	AFS Book Editorial Advisory Board Meeting	Boardroom

Tuesday August 23

Time		Event	Room
3:00 PM	5:00 PM	Biologically-Based Design and Evaluation Initiative for Hydropower	Benton A
3:20 PM	5:00 PM	General Fisheries (Contributed Papers)	New York A
4:00 PM	5:00 PM	Student Speed Mentoring	Exhibit Hall B
4:00 PM	6:00 PM	Fisheries Editorial Reception (Invitation Only)	Presidential Suite
5:00 PM	6:30 PM	International Fisheries Section Meeting	Chouteau B
5:00 PM	7:00 PM	VEMCO Acoustic Telemetry Demonstration and Social	Atlanta A
5:30 PM	6:30 PM	Fish Habitat Section Meeting	Johnny's Tavern
6:00 PM	9:00 PM	Student Networking Event—Cowboy and Cowgirl Up	PBR Big Sky – KC Power & Light District

Wednesday August 24

Time		Event	Room
7:00 AM	5:00 PM	Registration and Information	The Terrace
7:00 AM	5:00 PM	Speaker Check-in and AV Loading	Van Horn A
7:00 AM	9:00 AM	Spawning Run and Carcass Crawl	Berkley Riverfront Park and Heritage Trail
8:00 AM	9:20 AM	Plenary (Dr. Zeb Hogan) and William E Ricker Resource Conservation Award, President's Fishery Conservation Awards (Member and Non-Member), and Award of Excellence Presentations	Exhibit Hall B
9:00 AM	2:00 PM	Tradeshow Open and Cyber Café	Exhibit Hall A
9:30 AM	11:30 AM	AFS—Future Direction for Resource Policy Efforts	Benton A
9:40 AM	11:40 AM	Fish and Cooling Water Intakes (Contributed Papers)	Van Horn B
9:40 AM	11:40 AM	Release and Discard Mortality Estimation: Lessons from Freshwater and Saltwater Environments (Symposium)	Empire B
9:40 AM	2:00 PM	Movement and Aquatic Organism Passage (Contributed Papers)	Chicago C
18		American Fisheries Society 146th Annual Meeting	

Wednesday August 24

Time		Event	Room
9:40 AM	3:00 PM	Coupled Interactions between Natural and Human Systems—On the Interplay between Aquatic Ecosystem Health, Human Behavior and Decision- Making, and Aquatic Invasive Species (Symposium)	Atlanta
9:40 AM	3:00 PM	Managing Riverscapes: Conservation Tools to Assess and Improve Stream Fisheries (Symposium)	Chouteau A
9:40 AM	3:00 PM	Salmonids (Contributed Papers)	Empire C
9:40 AM	3:00 PM	Freshwater Fisheries Management (Contributed Papers)	Chicago A
9:40 AM	3:00 PM	Managing Centrarchid Fisheries in Rivers and Streams (Symposium)	New York B
9:40 AM	3:00 PM	An Examination into Influencing the Future of Angling Participation to Sustain Conservation Support (Symposium)	Empire A
9:40 AM	3:00 PM	Effects of Drought on Aquatic Resources, Fisheries Management, and Mitigation Strategies (Symposium)	Chicago B
9:40 AM	3:00 PM	Preparing Fisheries Professionals with Depth and Breadth (T-Shaped Professionals) (Symposium)	New York A
9:40 AM	3:00 PM	Ecology and Life History (Contributed Papers)	Chouteau B
10:00 AM	12:00 PM	AFS Chapter Presidents Meeting	Benton B
11:40 AM	1:00 PM	LOTEK Luncheon—New Technology and Product Overview (Invitation Only)	Van Horn C
12:00 PM	2:00 PM	AFS Past-Presidents Luncheon (Invitation Only)	Fremont
1:00 PM	3:00 PM	General Fisheries (Contributed Papers)	Empire B
2:00 PM	3:30 PM	Tradeshow and Poster Takedown	Exhibit Hall A
3:30 PM	5:30 PM	AFS Business Meeting	Exhibit Hall B
6:00 PM	10:00 PM	The Grand Networking Event	Union Station

Thursday August 25

Time		Event	Room
7:00 AM	8:30 AM	Incoming AFS Governing Board Breakfast (Invitation Only)	Fremont
7:30 AM	12:00 PM	Registration and Information	The Terrace
7:30 AM	12:00 PM	Speaker Check-in and AV Loading	Van Horn A
7:00 AM	8:30 AM	Incoming AFS Governing Board Breakfast (Invitation C	Only)
8:00 AM	11:00 AM	River Restoration (Contributed Papers)	Van Horn B
8:00 AM	11:40 AM	Carp Ecology and Management (Contributed Papers)	Chouteau B
8:00 AM	11:40 AM	Managing Centrarchid Fisheries in Rivers and Streams (Symposium)	New York B
8:00 AM	1:40 PM	Fish Conservation (Contributed Papers)	Atlanta
8:00 AM	2:00 PM	Modeling and Statistics (Contributed Papers)	New York A
8:00 AM	4:20 PM	Protecting Fish at Cooling Water Intakes: New Rules and Science-based Solutions (Symposium)	Chouteau A
8:00 AM	4:20 PM	Applications of Methods and Techniques and Collaborations in Managing and Conserving Large River Basin Fishery Resources and Environment (Symposium)	Empire B
8:00 AM	4:20 PM	Salmonids (Contributed Papers)	Empire C
8:00 AM	4:40 PM	Theory and Application of Behavioral Guidance Technologies to Deter Invasive and Native Fish (Symposium)	Chicago C
8:00 AM	5:00 PM	Understanding Pallid Sturgeon Population Dynamics and Stressors in the Missouri and Mississippi Rivers (Symposium)	Chicago A
8:00 AM	5:00 PM	Effects of Drought on Aquatic Resources, Fisheries Management, and Mitigation Strategies (Symposium)	Chicago B
8:00 AM	5:00 PM	An Examination into Influencing the Future of Angling Participation to Sustain Conservation Support (Symposium)	Empire A

Thursday August 25

Time		Event	Room
12:00 PM	2:00 PM	Kansas City—Tampa Hand-off Luncheon (Invitation Only)	TBD
1:00 PM	5:00 PM	Fish Culture (Contributed Papers)	Van Horn B
1:00 PM	5:00 PM	Marine Fisheries Management (Contributed Papers)	New York B
1:00 PM	5:00 PM	Ecology and Life History (Contributed Papers)	Chouteau B
2:00 PM	5:00 PM	What Data are Needed to Ensure Freshwater Mollusk Conservation into the Future? (Symposium)	Atlanta
3:20 PM	5:00 PM	Preparing Fisheries Professionals with Depth and Breadth (T-Shaped Professionals) (Symposium)	New York A

PLENARY SESSIONS

Exhibit Hall B 8:00 AM - 9:20 AM

Monday August 22

8:00	Opening remarks
8:05	Welcome and Introductions - Ron Essig, AFS President
8:30	We Only Manage What has Value: Establishing Value for Fisheries Resources
	Dr. Hal Schramm, Jr.
9:00	Carl R. Sullivan Fishery Conservation Award presentation – Jesse Trushenski, AFS Second
	Vice-President
9:10	Carl R. Sullivan Fishery Conservation Award recipient comments
9:20	Close session and Break
Tueso	day August 23
8:00	Opening remarks
8:10	Using Social Media and Technology to Inspire and Educate
	Danielle Brigida
8:40	Awards presentations - Steve McMullin, AFS First Vice-President
	Meritorious Service Award
	Excellence in Fisheries Education Award
	2016 AFS Fellows
9:00	Emmeline Moore Prize presentation – Steve McMullin, AFS First Vice-President
9:10	Emmeline Moore Prize recipient comments
9:20	Close Session and Break
Wedr	nesday August 24
0.00	
8:00	Opening remarks
8:10	Using Science and Storytelling to Create a Global Voice for Freshwater Fish Conservation
0.40	Dr. Zeb Hogan
8:40	Awards presentations – Joe Margraf, AFS President-Elect
	William E. Ricker Resource Conservation Award
	President's Fishery Conservation Award – Member Category
0.00	President's Fishery Conservation Award – Non Member Category
9:00	Award of Excellence presentation – Joe Margraf, AFS President-Elect
9:10	Award of Excellence recipient comments
9:20	Close Session and Break

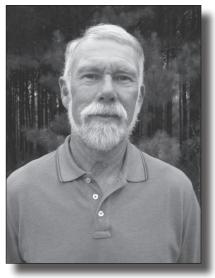
PLENARY SPEAKERS

Hal Schramm, Jr.

Mississippi State University and Mississippi Cooperative Fish and Wildlife Research Unit

We Only Manage What Has Value: Establishing Value for Fisheries Resources

Hal Schramm is leader of the Mississippi Cooperative Fish and Wildlife Research Unit and professor in the Department of Wildlife, Fisheries, and Aquaculture at Mississippi State University. The Mississippi River provides a diverse and abundant fishery resource, but the contemporary conservation and management of this resource is really a tale of three rivers that differ geomorphically, hydrologically, and, most importantly, socio-economically. Schramm will use the Mississippi River as an example of conservation and management driven by value and extend this axiom to other fisheries resources. He will discuss some fisheries management successes and remaining challenges, describe the essentiality of partnerships for establishing value, and explore future options for expanding partnerships.





Danielle BrigidaU.S. Fish and Wildlife Service

Using Social Media and Technology to Inspire and Educate

Social media allows us to share experiences, connect with others, and discuss the very important topics (or cat videos). It's up to us to find a way to engage respectfully and distribute meaning through our interactions. I'll talk about techniques for meaningfully engaging in social media so that we educate and inspire those interested in our topic. I'll also discuss how we can use social media, content strategy, and connectivity to build meaningful relationships.

Zeb Hogan College of Science, University of Nevada, Reno

Using Science and Storytelling to Create a Global Voice for Freshwater Fish Conservation

Zeb Hogan is an assistant professor at the University of Nevada, Reno, a National Geographic Society Fellow, and a United Nations Convention on Migratory Species Scientific Councilor for Fish. He also hosts the National Geographic television series, "Monster Fish." His research includes contributions to understanding the migratory patterns and population status of vulnerable fish species, designation of the giant Mekong catfish as Critically Endangered on the IUCN Red List, and awareness-raising through international media and local communications about the plight of endangered fish species and their habitats. He will discuss his work with the National Geographic Society and other partners to merge conservation science with outreach and action.



2016 AWARDS

EMMELINE MOORE PRIZE



Mamie A. Parker

AWARD OF EXCELLENCE



Kurt Fausch

EXCELLENCE IN FISHERIES
EDUCATION



Donald Orth

MERITORIOUS SERVICE



Gwen White

WILLIAM E. RICKER
RESOURCE CONSERVATION



Michael Jones

CARL R. SULLIVAN
FISHERY CONSERVATION

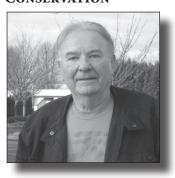


Bill Hogarth

PRESIDENTS' FISHERY CONSERVATION



Mark Hudy



Richard Dyrland

DISTINGUISHED SERVICE AWARD



Donald W. Gabelhouse Jr.

EXCELLENCE IN PUBLIC OUTREACH AWARD



Rob Neumann

EMERGING LEADERS MENTORSHIP AWARD



Michael Moore



Dan Nelson



Patrick Shirey



Sara Turner

OUTSTANDING CHAPTER AWARD



Oregon Chapter

OUTSTANDING STUDENT SUBUNIT AWARD



University of Maine

J. Frances Allen Scholarship Award



Katrina Cook

J. Frances Allen Scholarship Runner-Up



Vivan Nguyen

AFS STUDENT WRITING AWARD



Robert Lennox



Nicole Watson

SKINNER MEMORIAL HONORABLE MENTIONS



Stephanie Berkman



Adam Herdrich



Nicholas Kramer



Elizabeth Tristano



Casey Pennok



Christopher Sullivan

JOHN E. SKINNER MEMORIAL SCHOLARSHIP RECIPIENTS



Zachary Beard



David Bogner



Philip Branigan



Kyler Hecke



Lisa Izzo



Robert Mollenhauer



Kasey Pregler



Gretchen Stokes

STEVEN BERKELEY MARINE CONSERVATION FELLOWSHIP AWARD

Wendel Raymond

STEVEN BERKELEY MARINE CONSERVATION RUNNERS-UP

Camrin Braun Katrina Cook

2016 AFS FELLOW AWARDS

Jeff Boxrucker
David O. Conover
Reginal M. Harrell
Robert M. Hughes
Robert T. Lackey
Donald J. Orth
Donna L. Parrish
Harold L. Schramm, Jr.

CLASS OF 1967 GOLDEN MEMBERSHIP

Warren Alward	Robert Denoncourt	David Jude	Raymond Morgan	Malcolm Shealy
Alan Baracco	William Dwyer	Richard Keiser	Loren Moseley	Kenneth Sherman
John Boaze	Richard Kroger	Donald Kline	Stephen Rideout	William Tietjen
Robert Brown	John Griffith	Mark Konikoff	Fredric Serchuk	Harold Tyus
Richard Crone	Bernard Griswold	Dilip Mathur	Clifford Schneider	Robert Werner
Stephen Crooke	Gary Hudson	Robert May	Carl Schreck	Lynn Wixom
Paul Cross	Robert Johnson	James Mayhew	Victor Schuler	Loyd Wright
Donald Danila		•		

PUBLICATION AWARDS

ROBERT L. KENDALL BEST PAPER IN TRANSACTIONS OF THE AMERICAN FISHERIES SOCIETY

Scott A. Pavev

Growth, female size, and sex ratio variability in American Eel of different origins in both controlled conditions and the wild: implications for stocking programs

MERCER PATRIARCH BEST PAPER IN NORTH AMERICAN JOURNAL OF AQUACULTURE

Louis R. D'Abramo

Preharvest feeding strategy to enhance long-chain polyunsaturated and polyunsaturated fatty acid composition of the tail muscle of freshwater prawns Macrobrachium rosenbergii grown in earthen ponds

BEST PAPER IN NORTH AMERICAN JOURNAL OF FISHERIES MANAGEMENT

Pei Haung

Management evaluation for the Chesapeake Bay Blue Crab fishery: an integrated bioeconomic approach

BEST PAPER IN MARINE AND COASTAL FISHERIES

David D. Chagaris

Simulating the trophic impacts of fishery policy options on the West Florida shelf using Ecopath with Ecosim

BEST PAPER IN JOURNAL OF AQUATIC ANIMAL HEALTH

David J. Wise

Oral vaccination of Channel Catfish against Enteric septicemia of catfish using a live attenuated Edwardsiella ictaluri isolate

EVENTS

NETWORKING EVENTS

Welcome to Kansas City

Sunday, August 21, 6:00 PM – 9:30 PM Crown Center Square and Sea Life Aquarium

This welcoming event will be held at the Hallmark Pavilion in Crown Center Square. Catch up with old friends and meet new ones in this outdoor courtyard in the heart of downtown Kansas City. Dinner and drinks will be available from 6:30 to 9:00 PM on Sunday, August 21. Be sure to try out some of Missouri's unique carp entrees in addition to traditional evening fare.

Trade Show and Poster Networking Event

Monday, August 22, 6:00 PM – 8:30 PM Exhibit Hall A

See what is new and exciting in the world of fisheries. Exhibiters will be present on Monday night in the Crown Center exhibit hall. Also, over 100 posters will be on display to see what the next generation of fisheries professionals has been exploring. Drinks and appetizers will be served from 6:00 to 8:30 PM Monday evening.

The Grand Networking Event at Union Station

Wednesday, August 24, 6:00 PM – 10:00 PM Union Station

Just a short walk from the Sheraton hotel in the enclosed breezeway is the historic Union Station of Kansas City. On Wednesday from 6:00 to 10:00 PM you will be served the best barbecue Kansas City has to offer. Jack Stack BBQ is catering a full course dinner buffet in addition to a selection of assorted beverages.

SOCIETY BUSINESS MEETING

Wednesday, August 24, 3:30 PM – 5:30 PM Exhibit Hall B

The annual AFS Business Meeting will be held from 3:30 to 5:30 PM on Wednesday, August 24 in Exhibit Hall B. The meeting will include reports by President Ron Essig, Executive Director Doug Austen, and Constitutional Consultant John Boreman; presentation of awards and scholarships; information on plans for the 2017 meeting in Tampa, Florida; installation of elected officers; and other aspects of Society business. Be sure to attend this meeting to honor award and scholarship recipients, and to hear plans for the upcoming year from incoming President Joe Margraf.

STUDENT ACTIVITIES

Students play a vital role in the American Fisheries Society, representing future professionals responsible for conservation of our aquatic resources around the world. Students are encouraged to participate in these events to get the most out of their AFS 2016 Annual Meeting experience.

Best Student Paper and Poster Symposium

The Best Student Paper Symposium will be held Monday afternoon, August 22, 2016, and Tuesday morning, August 23, 2016. The Best Poster Symposium will be held on Monday, August 22, 2016, in the evening. Award recipients will be announced at the AFS Business Meeting on Wednesday, August 24, 2016.

Wild Jobs Café

Students are invited to join mentors on Tuesday afternoon for a speed mentoring session prior to the Student Networking Event Tuesday evening. Mentors from all walks of the fisheries profession will be on hand for face to face interaction, answering questions and relaying advice on what it takes to land that first job. Throughout the conference, students can also peruse current job opportunities available and get familiar with the qualifications needed for jobs at all levels in the fisheries field.

Student Networking Event—Cowboy and Cowgirl Up

Tuesday, August 23, 6:00 PM – 9:00 PM PBR Big Sky – KC Power & Light District

The AFS 2016 Student Social will be at PBR Big Sky from 6:00 to 9:00 PM on Tuesday, August 23, 2016. Located in the Kansas City Power & Light District, with more than 50 unique and captivating shops, restaurants, bars and entertainment venues, PBR Big Sky is Missouri's favorite "Cowboy Bar." Join students from across the nation while enjoying music, drinks, and KC-BBQ; or cowboy up, try your hand at the 'toughest sport on dirt' and see if you can stay on the in-house mechanical bull for a full 8 seconds.

SPAWNING RUN AND CARCASS CRAWL(5K)

Wednesday, August 24, 7:00 AM – 9:00 AM Berkley Riverfront Park and Heritage Trail

Join us for the 2016 Spawning Run and Carcass Crawl to be held along the banks of the Missouri River in Kansas City's Berkley Riverfront Park. Beginning at 7:00 a.m., participants are invited to dash along the riverside in this 5-kilometer fun run. For those who are a bit less ambitious, the Carcass Crawl allows for a leisurely walk along the same course. Visit our website, 2016.fisheries.org/spawning-run for the event description as well as more detailed information. Refreshments will be provided after the race.

Register online and check in at the Spawning Run booth in the Terrace to receive race information and your t-shirt. Late registration will be accepted at the registration booth until 4:00 PM on Monday, August 22, but t-shirt size will not be guaranteed.

SILENT AUCTION

Fundraising is an important part of bringing together the Annual Meeting. Most importantly, it provides funds to the John E. Skinner Memorial Fund, which provides monetary travel awards for students to attend the AFS Annual Meetings. This year's auction will be a silent auction with items up for bid that range from equipment that can be used in the field to trips that take you into the areas that inspire us in our work. Please join us in this activity that supports the next generation of fisheries researchers and managers.

LOCAL ATTRACTIONS

Along every boulevard and around every corner, there's something to do that's unique to Kansas City. With a thriving creative arts scene, eclectic mix of entertainment and die-hard sports—it's safe to say there's something for everyone. Find your way in KC by doing it all... or, at least trying to.

Unique attractions throughout KC beckon locals and visitors alike to find the city's hidden gems. Explore the nationally recognized World War I Museum. Let curiosity guide you at Union Station. Walk in the steps of America's 33rd President in Independence. Be inspired at the Nelson-Atkins Museum of Art.



In operation since 1857 and open seven days a week, the City Market is the largest farmers' market in the region with an annual attendance of nearly 600,000 and bursting with more than 140 farmer stalls filled with a wide variety of fresh produce, meats, baked goods, flowers, specialty foods, and other items from all over the world.

The City Market is home to a unique collection of gift shops, authentic restaurants, and the Arabia Steamboat Museum, which houses the largest collection of pre-Civil War artifacts in the world, recovered from a Missouri River steamboat which sank in 1856.

If you're a live music fan, the Crossroads KC @ Grinders in the Crossroads Arts District features a diverse array of musical groups, from rock to reggae and bluegrass to hip hop. When you come to the Crossroads, you'll find lots of free parking, colorful art, delicious dining options, and the beautiful skylines of downtown and Crown Center all under starry skies.

You can experience Major League action at Kauffman Stadium, home of the 2015 World Series Champion Kansas City Royals. "The K" opened April 10, 1973 and is recognized throughout baseball as one of the game's most beautiful ball-parks.

The City of Fountains is practically overflowing with adventure. Whether it's the scent of smoldering BBQ luring you to a plate of ribs, the sweet echo of jazz welcoming an evening of entertainment, or the spray of fountains inviting you to kick off your shoes and make a splash, you'll sense inspiration in the air – and find it along every boulevard. Consider this just a sneak peek of all you'll see, hear, feel and taste when you discover KC. Learn more about the wonders and attractions of Kansas City at https://www.visitkc.com.

Tradeshow

EXHIBITOR LISTING

Advanced Telemetry Systems Booth 211

470 1st Ave N Isanti, MN 55040 www.atstrack.com

Advanced Telemetry Systems (ATS) offers innovative and reliable wildlife tracking products designed for researchers world-wide. Our customized product line includes: VHF transmitters, satellite collars, GPS collars & loggers, receivers/dataloggers with DSP technology, programmable archive tags and more. Go to www.atstrack.com to live chat with a consultant or to receive a same day product quote.

Affymetrix Booth 406

3420 Central Expressway Santa Clara, CA 95051 www.affymetrix.com

Affymetrix, now part of Thermo Fisher Scientific, is transforming genomics in agriculture and offers a powerful range of genotyping and gene expression profiling solutions. Researchers and breeders can cost-effectively identify, validate, and screen complex genetic traits in animals and plants – diploids or polyploids. Visit our booth to learn about our new genotyping solutions for complex genomes, an expanded selection of transcriptome expression profiling solutions, and molecular biology reagents.

Alpha Mach

101-2205 Bombardier Ste-Julie, QC J3E 2J9, Canada

www.alphamach.com

Alpha Mach specializes in miniature and low cost archival tags used in fisheries and biology research. Our instruments offer the opportunity to economically tag a large number of animals or monitor rivers, lakes & tributaries. Our newest logger, the Weetag®, are RFID, implantable and have a large capacity memory.

American Fisheries Society – Publications *AFS Booth*

425 Barlow Place, Ste. 110 Bethesda, MD 20814 301-897-8616 www.fisheries.org/bookstore

The Books Program publishes textbooks, reference books, manuals, handbooks, and conference proceedings. Indepth studies on fisheries and interdisciplinary subjects, thematically-related collections of papers, and general interest books are produced for classroom learning, continuing professional development, and public education. Videos, computer software, and CDs are also offered. The latest aspects of research, management, policy, and techniquest are addressed by AFS books on fish biology and ecology, biodiversity and ecosystem management, restoration and conservation, introduced species, native species, genetics, evolution, statistics and mathematics, administration, sampling, engineering, aquaculture, and more. Also covered are sociology, economics, water quality, and other related aspects of aquatic science.

Big Fin Scientific Booth 301

7200 Highway 71 West, Suite B Austin, TX 78735 www.bigfinscientific.com

Big Fin Scientific manufactures top-quality fish-study systems, comprised of electronic wireless fish-measurement boards and highly adaptive software that runs on Android tablets. Customize your studies to exactly match your processes. Electronic data-capture avoids transcription errors and allows for real-time feedback and instantaneous data availability. No more waiting! High-quality data. We call it: Digital Fish Science.

BioBase Navico Booth 115

1229 Tyler St. NE, Suite 120 Minneapolis, MN 55413 651-204-0640 www.cibiobase.com

BioBase is a cloud-based mapping platform for professionals that automates the processing of acoustic files from consumer Lowrance or Simrad sounders and creates aquatic habitat maps. Users can map habitat while simultaneously conducting fisheries surveys with no additional work. Multiple users in an organization can contribute data to a centralized account. Come to the BioBase booth and ask if the sonar you may already have on your survey boat is compatible.

Biomark Inc. Booth 207

705 S. 8th St. Boise, ID 83702 208-288-0011 www.biomark.com

Biomark specializes in RFID (PIT tag) and related PIT tagging equipment and services for the fisheries and wild-life communities. Biomark serves the research community by designing, manufacturing, installing and maintaining the systems that detect the tags at strategic locations for comprehensive data collection and measurable results. Biomark also provides additional specialized services including tagging, statistical analysis, software development, study design and execution, report writing and computational model development to support analysis and decision making.

BioSonics Booth 308

4027 Leary Way NW Seattle, WA 98107 206-782-2211 www.biosonicsinc.com

BioSonics, Inc., Seattle, WA, has been pioneering creative solutions for monitoring and assessing fisheries and the aquatic habitat using their proven scientific echosounders and advanced software since 1978. BioSonics echosounders are versatile, reliable, easy to operate, and used by resource managers and researchers worldwide. ANNOUNCING FREE SOFTWARE RELEASE! VisAcq AutoTrack, to automatically build and record fish track lists, AND Visual Habitat, to assess and produce maps of aquatic vegetation, substrate type, and/or bathymetry data. (biosonicsinc.com).

Central Life Sciences

Booth 215

Attn. Gary Ross P.O. Box 3432 Burleson , TX 76097 682-300-0949 www.zoecon.com

Central Life Sciences a leading manufacturer of pesticides in the USA purchased the rotenone product line from Prentiss/Envincio in 2014. We are the leading supplier of both liquid and powder rotenone formulations including CFT Lequmine the low odor 5% liquid rotenone formulation that contains a more environmentally friendly solvent mix. Our other products include Prenfish Toxicant 5% liquid rotenone, and our Rotenone Fish Toxicant Powder.

CLS America Booth 404

4300 Forbes Blvd., Suite 110 Lanham, MD 20706 301-925-4411 www.clsamerica.com

CLS America is a global leader in satellite data communications, ARGOS, wildlife tracking, Iridium, vessel monitoring systems, Thorium, LRIT.

Desert Star Systems LLC *Booth 420*

3261 Imjin Rd. Marina, CA 93933 831-384-8000 desertstar.com

Desert Star Systems is a pioneer in the tagging industry. We manufacture ARGOS tags equipped with advanced magnetometers to give you better geolocation data. We've also partnered with CLS to provide better automated processing of that data (with access to raw data of course!). SeaTags and TinyTags available.

Echoview Software Pty Ltd. *Booth 319*

P.O. Box 1387 Hobart, TAS 7001, Australia Phone: 1 206-691-8293 www.echoview.com

Echoview is the world's premier software package for hydroacoustic data processing, delivering powerful and flexible capabilities for water-column and bottom echosounder and sonar data processing. With its broad scope and continued commitment to delivering cutting-edge capabilities, Echoview has been widely adopted as the global industry standard by fisheries scientists, aquatic ecologists and environmental managers who need to monitor, understand and manage marine and freshwater environments.

EcoAnalysts Inc. Booth 219

1420 S Blaine Suite 14 Moscow, ID 83843 208-882-2588 www.ecoanalysts.com

We are North America's leading provider of freshwater, estuarine, and marine taxonomy services. Using biological communities such as fish, benthic invertebrates, periphyton, zooplankton, phytoplankton and ichthyoplankton, our taxonomy laboratory helps a wide variety clients to understand the biological condition of surface water systems. With a highly skilled team of taxonomists and laboratory technicians, we process over 10,000 taxonomy samples per year.

ETS Electrofishing Systems, LLC *Booth 323*

1240 E. Washington Ave. Madison, WI, 53703 608-661-0599 www.etselectrofishing.com

ETS has provided quality boat, stream barge, and back-pack electrofishing systems to federal, state, and private agencies for over 25 years. Our systems feature accurate peak metering and continuously adjustable direct dial controls, allowing fast and precise setting of parameters without wading through computer-style menus and buttons. We offer excellent customer service and custom design each system to meet the needs of your agency, reducing needless complexity and cost.

Fatsack Outdoors Inc. *Booth 402*

311 Kings Mountain Drive Greer, SC 29650 864-270-4038 www.fatsackoutdoors.com

The Company's first product is a mobile application that serves as a fishing log book designed to help anglers with both their organization and expanding their access to analytics. The product also features robust social and ecommerce components.

Fishiding Reclaimed Artificial Fish Habitat *Booth 307*

9011 Ramble Rd Wonder Lake, IL 60097 815-693-0894 fishiding.com

Fishiding.com has been producing uniquely abstract and densely intricate models of artificial fish habitat from reclaimed pvc since 2007. Diverse models with substantially flat limbs of unlimited thickness, textures, sizes and shapes, focusing on periphyton growth, fish protection, reproduction and overall stress relief. Dense and impenetrable shallow water fry/forage cover, mid depth transition habitat, up to tall spires of vertical HighRise habitat, all models self weighted, bend to shape lasting decades in /out of water.

Florida Chapter of the American Fisheries Society

Booth 204

http://sdafs.org/flafs/

Promotional booth for the 2017 AFS Meeting in Tampa, Florida.

Floy Tag & Manufacturing *Booth 105*

4616 Union Bay Place NE Seattle, WA 98105 206-524-2700 www.floytag.com

Floy Tag and Mfg., Inc. has been in the fisheries research tag business for over 50 years. We specialize in the external, visual tags that are manufactured in Seattle, WA.

Freshwater, Fish and the Future

425 Barlow Place, Ste. 110 Bethesda, MD 20814 301-897-8616 inlandfisheries.org

As recently supported at the Committee on Fisheries (COFI) meeting at the UN Food and Agriculture Organization (FAO), the "Rome Declaration: Ten Steps to Responsible Inland Fisheries" outlines much needed international actions to improve the global sustainability of freshwater fisheries and maintain the livelihoods and nutrition security of those who depend on them. Stop by for a free copy of the Ten Steps pamphlet.

Frigid Units Inc.

Booth 320

5072 Lewis Ave Toledo, OH 43612 419-478-4000 frigidunits.com

Frigid Units manufactures various Fiberglass Tanks and Water Chiller/Heater Units. Including our closed re-circulating "Living Stream" which cools, aerates and filters in one operation & our Min-O-Cool's. Versatile STREAM MODULES (now in 3 sizes) for a continuous flow of water in limited space and Patented CHILLER/HEATER Units with dual digital thermostat for consistent temperature control. Need something special? We have the flexibility to custom manufacture to special needs.

Halltech Aquatic Research Inc.

Booth 209

129 Watson Rd South Guelph, ON N1L 1E4, Canada 519-766-4568 www.halltechaquatic.com

Halltech has been building quality Fisheries and Aquatic Research Equipment since 1991. Our reputation as a highly attentive manufacturer and supplier of a very wide variety of technical field supplies is a source of great pride. Our client base of the very popular HT2000MKV Battery Powered Backpack Electrofisher and all it's conversion kits is growing rapidly worldwide. Our Electrofishing Boats featuring the Midwest Infinity Box are performing flawlessly in all types of water bodies.

Hydroacoustic Technology, Inc. *Booth 408*

715 NE Northlake Way Seattle, WA 98105 206-633-3383 www.HTIsonar.com

From fine-scale acoustic tag tracking systems to advanced hydroacoustic echo sounders to fisheries consulting & training, HTI provides scientific research solutions for fisheries worldwide. Monitor fish passage, behavior, and survival with acoustic tag systems or detect predation events with predation detection acoustic tags. Accurately determine fish presence, counts, and distribution/density with echo sounders. HTI's team of biologists & consultants are available to conduct studies, provide support & training to help reach your research objectives. www.HTI-sonar.com

Hydrolox Booth 217

New Orleans, LA 70123 866-586-2825 www.hydrolox.com

Hydrolox[™] engineered polymer chainless traveling water screens deliver long lasting, cost-effective, virtually maintenance-free performance. Proven to exclude debris and reduce harm to aquatic life, these 316(b) compliant, easy to install solutions are built to withstand extreme debris events and eliminate uneven wear and mistracking. Backed by expert project management and industry-leading warranties, Hydrolox screens address the needs of water-extracting facilities across all industries.

Intake Screens, Inc. *Booth 418*

8417 River Rd. Sacramento, CA 95832 916-665-2727 intakescreensinc.com

Wedgewire fish protection screens for water diversions. ISI provides engineered self-cleaning intake screen systems for regulatory compliance and intake reliability. Our proven brush-cleaned systems are designed for fine slot applications at new and existing sites.

The Japanese Society of Fisheries Science *Booth 109*

4-5-7 Konan, Minao Tokyo 108-8477, Japan 81-3-3471-2165 http://jsfs.jp/en

Since 1934, JSFS has been dedicated to the field of fisheries sciences. In 2017, an international symposium will be held September 22–24 celebrating the association's 85th anniversary, and any participants from overseas are welcome. Information is announced in https://www.gakkai-web.net/gakkai/jsfs/sympo/index.html.

Kasco Marine

Booth 315

Contact: Megan Wolf 800 Deere Road Prescott, WI 54021-1241 www.kascomarine.com

Kasco, a leader in the aquaculture and fish rearing industries, offers several products to make your farm, ponds, or tanks more productive with healthier, faster growing fish. Our surface aerators, Robust-Aire Diffused Aeration and circulators will help improve the health and growth rate of your fish, prevent winter kills and improve your overall water quality. Whether you're a production farmer, researcher, or hobbyist, Kasco will provide the best water quality management possible.

Little Pond Nature Prints

Booth 213

322 SE Harney St. Newport, OR 97365 541-961-7567 http://koikebruce.wix.com/koike-fish-prints

Little Pond Nature Prints specializes in the Japanese art of Gyotaku (Fish Printing). Original art is executed with acrylic paint on rice paper. This technique involves the use of the actual fish, shellfish or botanical. No odor is left behind!! Visit us at the AFS-2016 Trade Show.

Little River Research & Design Booth 325

550 N. University Ave. Carbondale, IL 62901 618-529-7423 www.emriver.com

Little River Research & Design builds innovative movable-bed river process simulators for hands-on teaching and research. Study river habitat hydraulics including substrates and flow around structures with the Emflume1, a turnkey, portable, desktop flume system. As a complement to the flume, teach and explore river geomorphology and engineering concepts in our 2, 3, and 4-meter length Emriver geomodels. Our models are used around the world and are uniquely trouble-free, easy to use, and portable.

Lotek Wireless Inc.

Booth 309

Attn: Joseph Di Lullo 115 Pony Drive Newmarket, ON L3Y 7B5, Canada 905-836-2904 lotek.com

Lotek is a world leader in the design and manufacture of fish and wildlife monitoring systems. These include radio, acoustic, archival and satellite technology

Marel Seattle

Booth 309

2001 W Garfield St. Terminal 91 Building A1 Seattle, WA 98119 619-977-3144 www.marel.com

Marel is the leading global provider is advanced processing systems and services to the Fish, Meat, and Poultry industries. We offer the convenience of single source to meet every need. In partnership with our customers we are transforming the way food is processed. Our vision is of a world where quality food is produced sustainably and affordably.

Media Cybernetics Booth 103

401 N Washington St., Suite 350 Rockville, MD 20871 301-495-3305 www.mediacy.com

Media Cybernetics' Image-Pro® Premier image analysis software is particularly suited for fisheries research and quality assurance. Premier's selection of automated, semi-automated and manual options enables fish biologists and research technicians to extract valuable qualitative and quantitative information from images at different scales of both fresh and salt water species. To learn more/download the Otolith app, please visit the Media Cybernetics App Center today at www.mediacy.com.

Midwest Lake Electrofishing Systems Booth 201

7561 SW Prairie Ridge Rd. Polo, MO 64671 816-804-50604 www.midwestlake.com

Midwest Lake Electrofishing Systems Manufacturers of the most versatile electrofishing systems in the industry-the Infinity Control Box, the Infinity HC-80 and the Infinity Xstream Backpack Electrofisher. Through innovation and superior customer service, we are changing the way fisheries managers and researchers do business. We design, fabricate, and distribute sampling equipment, including top-notch electrofishing boats, to meet the needs of the fisheries professional. Our biologists also perform contract consulting and fish sampling.

Miller Net Company, Inc.

Booth 205

P.O. Box 18787 Memphis , TN 83181 800-423-6603 www.millernets.com

Miller Net Company is a family business with a product line developed from four generations of experience. Our hand-crafted nets are built in our net shop located in Memphis, Tennessee. We have years of experience in the art of hanging nets. We use only the finest materials in our nets—no seconds or inferior netting is ever used. Miller Net Company never substitutes material. We have years of experience specializing in trap/fyke nets, experimental gill nets, hoops nets, etc.

Mossback Fish Habitat *Booth 50*

1853 W Henride Tonti Blvd. Springdale, AR 72762 479-751-4100 www.mossbackrack.com

Mossback Fish Habitat is a full line of artificial habitat designed by fishermen for fishing and fisheries management with products custom-manufactured to meet your specific habitat needs. Whether you are looking for habitat to hang from an individual dock to improve your catch rates, provide safe havens for fry and baitfish survival and recruitment, or a complete lake restoration project, Mossback Fish Habitat can meet your needs.

National Fish Habitat Partnership Booth 318

1100 First St, NE Suite 825 Washington, DC 20002 www.fishhabitat.org

Since 2006, the National Fish Habitat Partnership has been a partner in 417 projects in 46 states benefiting fish habitat. The National Fish Habitat Partnership works to conserve fish habitat nationwide, leveraging federal, state, tribal, and private funding resources to achieve the greatest impact on fish populations through priority conservation projects. The national partnership implements the National Fish Habitat Action Plan and supports 19 regional grassroots partner organizations.

National Oceanographic Partnership Program *Booth 317*

www.nopp.org

The National Oceanographic Partnership Program (NOPP) is an innovative collaboration of Federal agencies that supports and coordinates ocean research partnerships among state and tribal governments, academia, private industry, and non-governmental organizations (NGOs). Under the inter-agency guidance of the NOPP, these sectors are able to form partnerships that more efficiently pursue the Nation's most pressing research needs on ocean science and technology priorities.

NOAA Fisheries Booth 424

1315 East-West Highway Silver Spring, MD 20910 www.fisheries.noaa.gov

NOAA Fisheries is responsible for the stewardship of the nation's ocean resources and their habitat. We provide vital services for the nation: productive and sustainable fisheries, safe sources of seafood, the recovery and conservation of protected resources, and healthy ecosystems—all backed by sound science and an ecosystem-based approach to management.

NOAA LMRCSC (Living Marine Resources Cooperative Science Center)

Booth 422

1 Backbone Rd., Carver Hall Room 1103 Princess Anne, MD 21853 410-621-2270 https://www.umes.edu/lmrcsc/

The NOAA Living Marine Resources Cooperative Science Center (LMRCSC) trains and graduates students from underrepresented communities in marine science for careers in research, management, and public policy that support the sustainable harvest and conservation of our nation's living marine resources. With its partner institutions, the LMRCSC conducts research on marine and estuarine systems congruent with the interests of NOAA Fisheries.

Northwest Marine Technology, Inc. *Booth 221*

955 Malin Lane SW Tumwater, WA 98501 360-468-3375 www.nmt.us

NMT specializes in implant tags for live fish, crustaceans, reptiles and amphibians, and other aquatic animals in a manner that minimizes biological impact while providing clear and unbiased data. All of our tags are injected internally and include Coded Wire Tags, Visible Implant Elastomer Tags, and Visible Implant Alpha Tags. NMT also offers fish counters for juveniles and adults.

Oregon RFID Booth 208

4246 SE Ogden St. Portland, OR 97206 503-929-2706 www.oregonrfid.com

Oregon RFID manufactures equipment for tracking fish and wildlife using low frequency PIT tags and readers. Our products are used worldwide for scientific research and commercial operations. We have been providing our customers with quality products and support since 2003. Oregon RFID is a government certified Woman Owned Small Business.

OTT Hydromet Booth 216

5600 Lindbergh Drive Loveland, CO 80539 512-869-2977 www.ott.com

OTT Hydromet helps water resource professionals generate reliable data throughout the entire water cycle. We go beyond simply providing solutions by partnering with our customers in designing effective answers to the challenges they encounter in their vital role of monitoring the world's water. OTT Hydromet offers the combined strength & expertise of leaders in the water quality, quantity & telemetry fields & over 140 years of experience in environmental measurement.

Pacific Netting Products, Inc. Booth 313

25993 United Rd. NE Kingston, WA 98346 360-297-0858 www.pacificnettingproducts.com

Pacific Netting Products designs, manufactures and installs high-tech, flexible barriers for fish passage, fish exclusion and fish guidance. Our products can help you protect fish, guide them and keep them healthy as they migrate past hydroelectric dams; exclude fish from being trapped at water intake structures used for industrial cooling; exclude birds from energy sites, polluted water, crops, gardens, or buildings or secure animals in enclosures at aquaculture or other marine enclosures.

Quantum Spatial, Inc. *Booth 210*

10033 MLK St. N, Suite 200 ST. Petersburg, FL 33716 727-576-9500 www.quantumspatial.com

Quantum Spatial is the most technically advanced geospatial solutions provider in North America. Our capabilities encompass the acquisition, analysis, integration, and management of geospatial data. We offer a diverse portfolio of advanced imaging and remote sensing technologies, backed by powerful modeling, visualization, and GIS tools. We help federal clients use geospatial data to better understand and manage land, water, and wildlife resources. We also provide timely, geospatial data to the U.S. defense and intelligence community.

Smith-Root Electrofishing Solutions *Booth 312*

140114 NE Salmon Creek Ave. Vancouver, WA 98686 360-573-0207 www.smith-root.com

Smith-Root was honored to receive the "Dedication Award" from AFS at the 2015 American Fisheries Society Conference in Portland, Oregon. It has always been an honor to partner with fisheries scientists to develop solutions for the fisheries conservation and management community. Thank you all for your dedication to improving aquatic environments.

Sonotronics

Booth 223

3169 S. Chrysler Ave. Tucson, AZ 85713 Phone: 520-746-3322 www.sonotronics.com

Sonotronics is celebrating 45 years as a pioneer in acoustic telemetry for animal tracking, providing ultrasonic transmitters, receivers and hydrophones for tracking animals and equipment underwater.

Taylor & Francis Booth 311

530 Walnut Street, Suite 850 Philadelphia, PA 19106 215-625-8900 www.tandfonline.com

For two centuries, Taylor & Francis has been fully committed to the publication of scholarly research. We publish the official journals for the American Fisheries Society, and also a variety of similar titles relevant to the field of aquatics. Visit the Taylor & Francis booth to learn about our products and services, and to request free sample copies of our journals.

Trovan, Ltd. Booth 305

175 Santa Elena Ln. Santa Barbara, CA 93108 805-565-1288 www.trovan.com

Trovan, Ltd. offers turnkey RFID solutions for identification of fish and crustaceans. With over 280 million tags using TROVAN technology sold to date, Trovan is the leading supplier of tagging equipment and automation solutions for fish identification globally. Miniature TROVAN tags will work where others won't, offering superior read performance for size of tag. Use Trovan transponders to safely identify individual specimens for life, with minimal impact on the animals.

UID Identification Solutions

Booth 306

500 Park Ave., Suite 109 Lake Villa, IL 60046 http://www.uidevices.com/

Founded by research scientists, UID specializes in unique solutions for the identification and tracking wildlife animals using PIT Tags. Customize your research with different solutions using UID PIT tags and readers to complement your research needs. Each PIT tag is ISO 11784/85 and ICAR Compliant to ensure the highest quality and non-repeating unique numbers. 15 year minimum life expectancy for ensured long term reading. UID also provides custom software support to develop your specific application for research. Ask about our Free Reader Program.

USDA Forest Service Booth 303

1400 Independence Ave., SW Washington, DC 20250 1-800-832-1355 http://www.fs.fed.us/

The USDA Forest Service manages and protects 154 national forests and 20 grasslands in 44 states and Puerto Rico, including thousands of stream miles and lake acres. Our mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations. We work with a diverse group of partners, including Federal, State, and Tribal agencies, universities, NGOs, and international cooperators, to enhance aquatic conservation.

Utah State University Quinney College of Natural Resources

Booth 107

5200 Old Main Hill Logan, UT 843220 435-797-2452 http://qcnr.usu.edu/mnr/index

The Quinney College of Natural Resources at Utah State University offers undergraduate degree programs in Fisheries and Aquatic Sciences, and graduate programs in Fisheries Biology and the Master of Natural Resources (MNR). The MNR is a professional degree targeted to students who are currently employed by natural resource agencies, consulting firms, or non-profit organizations. Utah State University is located in Logan, Utah, a scenic mountain town of 50,000 people.

VEMCO Booth 414

20 Angus Morton Dr. Attn: Nancy Edwards Halifax, NS B4B 0L9, Canada 902-450-1700 x279 www.vemco.com

VEMCO is the world leader in the development of underwater acoustic telemetry monitoring and tracking systems used by researchers worldwide for behaviour, migration and positioning studies of aquatic animals in fresh and saltwater environments. Products include acoustic transmitters, automated receivers for long term studies, receivers that deliver high-resolution positioning, and temperature data loggers. Learn more about our newest receivers, the VR2Tx with built-in transmitter and the VR2AR with built-in transmitter and acoustic release.

West Marine Products Inc DBA Port Supply Booth 113

800-621-6885 https://www.portsupply.com/

Port Supply the wholesale division of West Marine is one of the largest wholesale distributors of marine and boating related products and accessories in the world. We carry a broad selection of marine accessories and products from over 1000 major marine vendors. Our product offering represents virtually every quality marine manufacturer in the industry. We offer pro-forma and open terms wholesale accounts to Institutions, Non-Profits and Marine Research organizations without minimum annual spending thresholds.

Whooshh Innovations

Booth 412

2001 West Garfield St. Seattle, WA 98119 206-810-3565 www.whooshh.com

Whooshh Innovations is revolutionizing fish passage and fish rescue through our proprietary, proven, watersparing Whooshh™ technology—moving live fish over and around barriers gently, reliably, and cost-effectively through hands-free, assisted, or hand-fed solutions. The company has a patent portfolio that includes 20 patents issued with another 100 patents pending worldwide.

Wildscapes Inc.

Booth 321

1835 Ridge Rd. Clover, SC 29710 304-280-5428 www.wildscape.com

I raise the caddisfly larva in a simulated stream and give them gemstones to build their stone cases with. The results are beautiful unique designs created by the caddisfly!

YSI, a Xylem Brand Booth 410

1725 Brannum Ln. Yellow Springs, OH 45387 937-688-4255 ysi.com

YSI Incorporated, a subsidiary of Xylem Analytics, designs and manufactures water quality equipment for sampling and monitoring applications. YSI is committed to developing and supporting innovative technology that will contribute to the sustainability of global fisheries. Whether conducting continuous monitoring and control or spot sampling, YSI instruments make your job more efficient. Parameters include; conductivity, chlorophyll, dissolved oxygen, pH, ORP, salinity, chloride, turbidity, flow, temperature, level, blue-green algae and more.

Zerion Software

Booth 111

13665 Dulles Technology Dr., Suite 110 Herndon, VA 20171 www.zerionsoftware.com

Zerion transforms the way organizations capture, use, and manage their data. We are dedicated to creating technology that enables teams to improve on their inspections, exceed compliance regulations, and make better business decisions.

Symposia and Contributed Paper Sessions

For space-saving reasons, only the title, organizers, moderators, and chairs are shown. Details about each session, inleuding symposium descriptions, are available online at https://afs.confex.com/afs/2016/webprogrampreliminary/SYMP.html or on the mobile app.

SYMPOSIA

Actions to Increase the Engagement of Underrepresented Minorities in Fisheries and Aquatic Sciences

Tuesday, August 23 9:40 AM – 1:00 PM Room: New York A

Moderator: Mamie Parker

Organizers: Ambrose Jearld, Christine M. Moffitt,

Steve E. Lochmann, and Gwen White

An Examination into Influencing the Future of Angling Participation to Sustain Conservation Support

Session I: Tuesday, August 23

9:40 AM – 5:00 PM Room: Empire A

Session II: Wednesday, August 24

9:40 AM – 3:00 PM Room: Empire A

Session III: Thursday, August 25

8:00 AM – 5:00 PM Room: Empire A

Moderators: Tom Lang, J. Wesley Neal, Rebecca M.

Krogman, John Taylor, and Ken Kurzawski

Organizers: Tom Lang, J. Wesley Neal, Kevin Hunt, John Taylor, Ken Kurzawski and Rebecca M. Krogman

Angling for Dinosaurs: Status and Future Study of the Ecology, Conservation and Management of Ancient Fishes

Monday, August 22 9:40 AM – 5:00 PM Room: Chicago A

Moderators: Sarah Huck, Solomon David ,and Jeffrey

Stein

Organizers: Sarah Huck, Solomon David, and Jeffrey

A. Stein

Applications of Methods and Techniques and Collaborations in Managing and Conserving Large River Basin Fishery Resources and Environment

Thursday, August 25 8:00 AM – 4:20 PM Room: Empire B

Moderators: Duane Chapman, Quinton Phelps,

Michael Eggleton and Yushun Chen

Chair: Yushun Chen

Organizers: Yushun Chen, Duane Chapman,

Quinton Phelps, Michael Eggleton, Daqing Chen and

Zhongjie Li

Best Student Papers and Posters Symposium

Monday, August 22 9:40 AM – 5:00 PM Room: Chouteau A

Organizers: Mark Fincel, Amanda Rosenberger, and

Daniel E. Shoup

Blue Catfish: Lessons from a Large Riverine Opportunistic Catfish

Tuesday, August 23 1:00 PM – 4:40 PM Room: Chicago B

Moderators: Joseph Schmitt and Martha E. Mather

Organizer: Donald J. Orth

Cooperative Fisheries Research in Marine and Freshwater Systems: From Policy to Practice

Session I: Monday, August 22

9:40 AM – 5:00 PM Room: Chouteau B

Session II: Tuesday, August 24

9:40 AM – 1:40 PM Room: Chouteau B

Moderators: Richard S. McBride, Nick Trippel, Angela Collins, Chris Bradshaw, Travis Tuten, Kim

Bonvechio and Dave Herzog

Chairs: Angela Collins, Richard S. McBride and Nick Trippel

Organizers: Angela Collins, Richard S. McBride, Nick Trippel, Quinton Phelps and Dave Herzog

Coupled Interactions between Natural and Human Systems—on the Interplay between Aquatic Ecosystem Health, Human Behavior and Decision-Making, and Aquatic Invasive Species

Wednesday, August 24 9:40 AM – 3:00 PM Room: Atlanta

Chairs: Hongyan Zhang and Doran M. Mason

Organizers: Hongyan Zhang, Victoria Campbell-Arvai, Doran M. Mason, and Edward S. Rutherford

Documented and Documenting the Effects of Climate Change on Inland Fish and Fisheries

Monday, August 22 9:40 AM – 4:40 PM Room: Empire C

Moderators: Bethany Bethke, Kristen Bouska, and

Bonnie Myers

Organizers: Craig P. Paukert, Abigail J. Lynch, Michelle D. Staudinger and Joanna Whittier

Ecological Flow Science and Policy: Protecting Stream Systems Today; Preparing for Tomorrow

Monday, August 22 9:40 AM – 5:00 PM Room: New York A

Moderators: Paul Blanchard, Jason Persinger and

Emily Tracy-Smith

Organizers: Jason Persinger and Emily Tracy-Smith

Effects of Diploid Grass Carp and State Grass Carp Stocking Policies on Aquatic Ecosystems

Monday, August 22 9:40 AM – 5:00 PM Room: New York B

Moderators: Greg Conover and Ron Brooks

Chair: Greg Conover

Organizer: Greg Conover

Effects of Drought on Aquatic Resources, Fisheries Management, and Mitigation Strategies

Session I: Wednesday, August 24

9:40 AM – 3:00 PM Room: Chicago B

Session II: Thursday, August 25

8:00 AM – 5:00 PM Room: Chicago B

Moderators: Karin E. Limburg, Matthew Altenritter

and Timothy H. Bonner

Chairs: Stephan Magnelia and Kevin Mayes

Organizers: Stephan Magnelia, Kevin Mayes, Tom Lang, Ryan Roberts, Matthew Altenritter, Lindsay A.

Campbell and Karin Limburg

Fish Research and Conservation in the "Scapes": Needs, Progress, Challenges, and Opportunities

Monday, August 22 9:40 AM – 5:00 PM Room: Empire A

Moderators: Jordan Hofmeier, Sean Hitchman and

Ryland Taylor

Organizers: Sean Hitchman, Martha Mather and

Iordan Hofmeier

Fisheries Management from the Great Lakes to the Gulf: Sea Grant's Role in Research, Outreach and Building Partnerships along the Mississippi River

Monday, August 22 9:40 AM – 2:20 PM Room: Van Horn B

Moderators: Jayson Beugly and Matthew Bethel

Chair: Jayson Beugly

Organizers: Laura Kammin, Matthew Bethel, Abigail

Archer and C. Eliana Brown

Fisheries Science in 140 Characters: The Role of Social Media in Our Science

Tuesday, August 23 9:40 AM – 5:00 PM Room: Chouteau A

Moderators: Sean M. Lucey, Abigail J. Lynch, Patrick

B. Cooney and Brandon Peoples

Chair: Sean M. Lucey

Organizers: Sean M. Lucey, Abigail J. Lynch, Patrick

B. Cooney and Brandon Peoples

Global Importance and Threats to Floodplain Fisheries: Potential Mitigation Measures to Reconnect Floodplains, Including Synergistic Benefits of Working with other Water Resource Sectors

Monday, August 22 1:00 PM – 5:00 PM Room: Chicago C

Moderators: Quinton Phelps and Ian G. Cowx

Organizers: Quinton Phelps and Ian G. Cowx

Hatchery Fish Biologist... A Career for the Future

Tuesday, August 23 9:40 AM – 5:00 PM Room: Van Horn B

Moderators: Steve Lochmann, Mike Barnes and Carl

Kittel

Chairs: Steve Lochmann, Mike Barnes and Carl Kittel

Organizers: Steve Lochmann, Mike Barnes and Carl

Kittel

Inland Drivers of Coastal Hypoxia

Tuesday, August 23 1:40 PM – 5:00 PM Room: Chouteau B

Moderator: Gwen White

Organizers: Thomas Bigford, Mary C. Fabrizio, Karin

Limburg and Benjamin Walther

Interactions Between Hydrology and Nonnative Aquatic Species

Tuesday, August 23 9:40 AM – 5:00 PM Room: Empire C

Moderators: Duane Chapman and Scott A. Bonar

Chairs: Duane Chapman and Scott A. Bonar

Organizers: Duane Chapman and Scott A. Bonar

Management Strategy Evaluation, Decision Analysis, and Ensemble Modeling: Tools for Addressing Assessment and Management Uncertainty

Monday, August 22 9:40 AM – 5:00 PM Room: Van Horn C

Moderator: Teresa A'mar

Chair: Richard D. Methot

Organizers: Richard D. Methot and Teresa A'mar

Managing Centrarchid Fisheries in Rivers and Streams

Session I: Tuesday, August 23

9:40 AM – 5:00 PM Room: New York B

Session II: Wednesday, August 24

9:40 AM – 5:00 PM Room: New York B

Session III: Thursday, August 25

8:00 AM – 11:00 AM Room: New York B

Moderators: Robert Humston, Michael Siepker,

Christopher Middaugh, Amy Cottell, Brett Timmons, Jan-Michael Hessenauer, Matthew

Wegener, Jonathan Watson, Wes Porak, Jeffrey Quinn

and Patrick Shirey

Chairs: Michael Siepker and Jeffrey Quinn

Organizer: Michael Siepker

Managing Riverscapes: Conservation Tools to Assess and Improve Stream Fisheries

Wednesday, August 24 9:40 AM – 3:00 PM Room: Chouteau A

Moderators: David Schumann and Katie Bertrand

Chair: David Schumann

Organizer: Katie Bertrand

Pop-Up Satellite Tagging—Challenges and Solutions

Monday, August 22 9:40 AM – 4:40 PM Room: Empire B

Moderator: Timothy F. Sheehan

Organizers: Mark D. Renkawitz and Timothy F.

Sheehan

Preparing Fisheries Professionals with Depth and Breadth (T-Shaped Professionals)

Session I: Wednesday, August 24

9:40 AM - 3:00 PM Room: New York A

Session II: Thursday, August 25

3:20 PM - 5:00 PM Room: New York A

Moderators: Erin Jarvie and Heather Triezenberg

Chair: Heather Triezenberg

Organizers: Erin Jarvie and Heather Triezenberg

Reservoir Fisheries Habitat Restoration: Innovative Techniques to Restore Habitat in our Nation's Impoundments

Session I: Monday, August 22

9:40 AM - 5:00 PM Room: Atlanta

Session II: Tuesday, August 23

9:40 AM - 2:20 PM Room: Atlanta

Moderator: Jeff Boxrucker

Chair: Jeff Boxrucker

Organizers: Jeff Boxrucker and Tom Lang

Protecting Fish at Cooling Water Intakes: New Rules and Science-based Solutions

Thursday, August 25 8:00 AM - 4:20 PM Room: Chouteau A

Moderators: Terry E. Cheek, Ronald Heun, Chuck Coutant, William Dey and Douglas A. Dixon

Chairs: Jon Black and Daniel Giza

Organizers: Terry E. Cheek, Ronald Heun, Chuck Coutant, William Dey, Douglas A. Dixon, Jon Black,

and Daniel Giza

Stephen Weithman: His Life Honored Through the Student Award

Tuesday, August 23 9:40 AM - 11:40 AM Room: Chicago B

Moderator: Keith Criddle

Organizers: Tom Lang, Heather Triezenberg, and

Vince Travnichek

Release and Discard Mortality Estimation: Lessons from Freshwater and Saltwater Environments

Session I: Tuesday, August 23

9:40 AM - 5:00 PM Room: Empire B

9:40 AM - 11:40 AM Room: Empire B

Session II: Wednesday, August 24

Moderators: Lee Benaka and David Rudders

Organizers: Lee Benaka, Noelle Yochum, David Rudders, and Derek Orner

Theory and Application of Behavioral **Guidance Technologies to Deter Invasive** and Native Fish

Thursday, August 25 8:00 AM - 4:20 PM Room: Chicago C

Moderators: Daniel Zielinski, Peter W. Sorensen, and

Clark Dennis

Chair: Peter W. Sorensen

Organizers: Daniel Zielinski and Peter W. Sorensen

Translating Essential Fish Habitat (EFH) Science into Fishery Management Decisions

Monday, August 22 2:20 PM – 5:00 PM Room: Van Horn B

Moderators: Anthony R. Marshak and Lauren

Latchford

Organizers: Lauren Latchford, Anthony R. Marshak, Christopher Meaney, Terra Lederhouse, and Kirsten

Larsen

Understanding Pallid Sturgeon Population Dynamics and Stressors in the Missouri and Mississippi Rivers

Thursday, August 25 8:00 AM – 5:00 PM Room: Chicago A

Moderators: Tim L. Welker, Todd Gemeinhardt,

Joseph Bonneau, and George A. Williams

Chairs: Nathan Gosch and Tim L. Welker

Organizers: Nathan Gosch and Tim L. Welker

What Data are Needed to Ensure Freshwater Mollusk Conservation into the Future?

Thursday, August 25 3:20 PM – 5:00 PM Room: Atlanta

Moderator: Wesley Daniel, PhD

Chair: Wesley Daniel, PhD

Organizers: Wesley Daniel, PhD; Arthur R. Cooper;

and Dana M. Infante, PhD

CONTRIBUTED PAPER SESSIONS

Fish Culture

Carp Ecology and Management

Thursday, August 25th 1:00 PM – 5:00 PM Room: Van Horn B

Thursday, August 25th 8:00 AM – 11:40 AM Room: Chouteau B

Moderator: Rod May

Moderator: Brett Landwer

Freshwater Fisheries Management—Tuesday

Ecology and Life History—Wednesday

Tuesday, August 23rd 9:40 AM – 5:00 PM Room: Chicago A

Wednesday, August 24th 9:40 AM – 3:00 PM Room: Chouteau B

Smith

Moderators: Nick Girondo and Mike Reed

Moderators: Dave Michaelson and Emily Tracy-

Freshwater Fisheries Management— Wednesday

Ecology and Life History—Thursday

Wednesday, August 24th 9:40 AM – 3:00 PM Room: Chicago A

Thursday, August 25th 1:00 PM – 5:00 PM Room: Chouteau B

Moderators: Scott Williams and Lynn Schrader

Moderator: Nicole Farless

General Session—Tuesday

Fish and Cooling Water Intakes

Tuesday, August 23rd 3:20 PM – 5:00 PM Room: New York A

Wednesday, August 24th 9:40 AM – 11:40 AM Room: Van Horn B

Moderator: Molly Sobotka

Moderator: Mike Mitchell

General Session—Wednesday

Fish Conservation

Wednesday, August 24th 1:00 PM – 3:00 PM Room: Empire B

Thursday, August 25th 8:00 AM – 1:40 PM Room: Atlanta

Moderator: Brian Todd

Moderator: Hope Dodd

Genetics

Monday, August 22nd 9:40 AM – 11:40 AM Room: Chicago C

Moderator: Dave Woods

Marine Fisheries Management

Thursday, August 25th 1:00 PM – 5:00 PM Room: New York B

Moderator: Rich Cook

Modeling and Statistics

Thursday, August 25th 8:00 AM – 2:00 PM Room: New York A

Moderator: Doug Novinger

Movement and Aquatic Organism Passage— Tuesday

Tuesday, August 23rd 9:40 AM – 5:00 PM Room: Chicago C

Moderators: Matt Matheney and Jason Persinger

Movement and Aquatic Organism Passage— Wednesday

Wednesday, August 24th 9:40 AM – 2:00 PM Room: Chicago C

Moderator: Craig Fuller

River Restoration

Thursday, August 25th 8:00 AM – 11:00 AM Room: Van Horn B Moderator: Del Lobb

Salmonids—Wednesday

Wednesday, August 24th 9:40 AM – 3:00 PM Room: Empire C

Moderators: Tom Whelan and Laura Ruman

Salmonids—Thursday

Thursday, August 25th 8:00 AM – 4:20 PM Room: Empire C

Moderators: Andy Cornforth and Andy Austin

Sampling Strategies

Monday, August 22nd 3:20 PM – 5:00 PM Room: Chicago B

Moderator: Darren Thornhill

Sturgeon and Paddlefish

Monday, August 22nd 9:40 AM – 3:00 PM Room: Chicago B

Moderators: Adam McDaniel and Jason Goeckler

SCHEDULE OF ORAL PRESENTATIONS

Consult the AFS Annual Meetings mobile app for the latest schedule changes.

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Reservoir Fisheries Habitat Restoration I	Angling for Dinosaurs: Status and Future Study of the Ecology, Conservation and Management of Ancient Fishes (Symposium)	Sturgeon and Paddlefish	Genetics
9:40 AM	Reservoir Fisheries Habitat Restoration Is Too Big a Job for Any One Agency to Tackle: Partnering and the Reservoir Fisheries Habitat Partnership's Role in Its' Promotion Jeff Boxrucker	Introductory Remarks Solomon David	Dispersal of Lake Sturgeon from a Connecting Channel: Implications for Restoration in the Great Lakes Justin Chiotti	Global Population Genomic Structure of Yellowfin Tuna (Thunnus albacares) Carlo Pecoraro
10:00 AM	The Challenge of Reservoir Fish Habitat Improvement in Texas: It's Going to Take a Village Dave Terre	Morphological Variation Among Bowfin (<i>Amia</i>) Populations from the Carolinas and Laurentian Great Lakes: Taxonomic and Conservation Implications Jay Palumbo	The Role of Lake Sturgeon in a Dreissenid Dominated Ecosystem Andrew S. Briggs	Marine Suture Zones As Evidence of Postglacial Recolonization in an Indo- Pacific Aquarium Fish Ellen Biesack
10:20 AM	Inspiring the Will to Revitalize a Reservoir Tom Lang	Success of Morphometric Gender Identification of Alligator Gar Dusty McDonald	Quantifying Summer Residency Times and Variation in Diel Behaviors of Lake Sturgeon in Buffalo Harbor, NY Rachel Neuenhoff	Genetic Diversity Among Great Lakes Cisco Species: Exploring Taxonomic and Population Boundaries Wendylee Stott
10:40 AM	So Why Should a Fish Biologist Want to Play in the Dirt? Mark T. Porath	Primer Designs for Identifying Seven Species of Gars and Potential Hybrids at the Belle Isle Aquarium Richard Kik IV	Lake Sturgeon Recovery Efforts in the Upper Mississippi River Quinton Phelps	Population Genomics and Local Adaptation of Invasive Sea Lamprey (<i>Petromyzon marinus</i>) in the Great Lakes <i>Trevor Krabbenhoft</i>
11:00 AM	Best Management Practices for Reservoir Fish Habitats Leandro E. Miranda	Population Genetics of Bowfins (Amiidae) Across the Laurentian Great Lakes and Carolinas Madeline Clark	Age Structure of Atlantic and Shortness Sturgeon in the Cooper River Using the Minimally Invasive Pectoral Fin Ray Victoria Ruddle	Phylogenetic Relationships Between the Members of the Genus Notropis (Family Cyprinidae) Using Cytochrome b and Cytochrome c Oxidase Subunit I Ryan Vazquez

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Reservoir Fisheries Habitat Restoration I	Angling for Dinosaurs: Status and Future Study of the Ecology, Conservation and Management of Ancient Fishes (Symposium)	Sturgeon and Paddlefish	Genetics
11:20 AM	Development of a National Reservoir Database of Geographical, Physical, and Morphological Metrics for Classification and Discrimination for Fisheries Habitat Assessment Kirk Rodgers	Connecting the Spots: Life History and Ecology of the Spotted Gar Lepisosteus Oculatus from an Oklahoma Reservoir Bryan Frenette	Shovelnose Sturgeon Population Attributes in the Cedar River, Near Mt. Vernon, IA Kyle Bales	Genetic Management of the USFWS Lnfh Pilot Peak Strain Brood Stock of Lahontan Cutthroat Trout Used in Recovery Activities in the Western Basin Gmu Mary M. Peacock
11:40 AM		Lunch Break		
12:40 PM				
				Global Importance and Threats to Floodplain Fisheries
1:00 PM	Potential Use of Remotely Sensed Data for Indexing Fish Habitat in Lakes and Reservoirs: Faster, Cheaper, Better? Rebecca M. Krogman	Development of a Stage- Specific Floodplain Inundation Model to Predict Suitable Spawning Habitat Availability for Assessing Alligator Gar Recruitment Success Clint Robertson	Sturgeon and Paddlefish Migration: Evidence to Support the Need for Inter-Jurisdictional Management Sara Tripp	Confronting centuries of change: a synopsis of restoration challenges for Midwestern Rivers Jason DeBoer
1:20 PM	Evaluating Effectiveness of Side Scan Sonar in Assessing Littoral Habitat Diversity in Arizona Reservoirs Amberle Jones	Juvenile Alligator Gar Movement Patterns in a Disconnected Floodplain Habitat in Southeast Missouri Levi Solomon	Lake sturgeon (Acipenser fulvescens) of the upper St. Lawrence River – Resurgence, distribution, and habitat associations John Casselman	Floodplain Ecosystem Productivity on a Large Restricted River: Warm Season Flooding on the Mississippi Molly Sobotka
1:40 PM	Testing Hypotheses Linking Coarse Woody Habitat, Fish Populations, and Food Webs in Experimental Ecosystems Corey S. DeBoom	Movement Patterns and Home Range Fidelity of Bowfin in Oneida Lake, New York James R. Jackson	Movement, Habitat Selection, and Commercial Harvest of Paddlefish in Lake Dardanelle, Arkansas Adam Geik	Development and Potential Use of Broad-Scale Inundation Metrics to Evaluate the Role of Floodplain Inundation on Fishes in the Lower Missouri River Kristen Bouska

Reservoir Fisheries Habitat Restoration I Time Reservoir Fisheries Habitat Restoration I Status and Future Study of the Ecology, Sturgeon and Paddlefish Threats to I Fisheries	ortance and
Habitat Restoration I Status and Future Study Time Status and Future Study of the Ecology, Fisheries	
Time of the Ecology, Fisheries	Floodplain
	Tooupium
Conservation and	
Management of Ancient	
Fishes (Symposium)	
Towards a Predictive Growth and Ecology of Natal Origin and Exploratory	Analysis of
	Parameters for
	Silvery Minnow
· ·	Recruitment, and
Collin Moratz Ryan Hupfeld Population	
Michael Po	
Changes in Utility and Precision of A Systemati	c Evaluation of
	Effects on 22
Growth, Condition, Used to Estimate Age of Exploited Fi	
and Behavior in Spotted, Shortnose, and Amazonian	
2:20 PM Response to a Large- Longnose Gars Floodplains	
Scale Habitat	
Enhancement in an	
Aging Reservoir	
Chance Kirkeeng	
	ne Mekong Delta:
and Spatiotemporal Coastal Zone: Long-Term Death By a	-
2:40 PM Factors on Fish Use of Trends and Ian G. Cow.	
Artificial Habitat Environmental	•
Daniel Daugherty Influences	
Daniel Daugherty	
3:00 PM Break	
Sampling	
Strategies	
	and Fish
Wildlife Habitat in Management, and Hydroacoustic Research Migration; A	A Fishery's
3:20 PM New Florida Reservoir Restoration of Alligator Vessels in Lake Erie Response to	•
Dustin Everitt Gar in Alabama Patrick Kocovsky Management	nt
David Armstrong Jr. Sui Chian F	Phang
Evaluating Fisheries Modeling the Responses Subsampling Stations Floodplain	Connectivity, and
Habitat Improvements of Alligator Gar with High Sea Scallop Ecological E	•
in a Newly Flooded Populations to Harvest: Density from Video Curse	-
3:40 PM Reservoir Implications for Meeting Surveying Techniques Mark Hemp	pel
Brad Fontaine the Needs of a Diverse Kyle Cassidy	
Angling Constituency	
Nathan Smith	
Artificial Habitat in Research and Revelations Accounting for Sampling Use of a Bac	kwater Lake with
* * *	teral Hydrologic
· ·	y By Invasive
· · ·	l Silver Carp
Reproduction Mark R. DuFour Alison Coul	ter
David Ewald	

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Reservoir Fisheries Habitat Restoration I	Angling for Dinosaurs: Status and Future Study of the Ecology, Conservation and Management of Ancient Fishes (Symposium)	Sampling Strategies	Global Importance and Threats to Floodplain Fisheries
4:20 PM	Evaluating Degradation and Temporal Effectiveness of Juniperus Ashei Used As Fish Habitat in a Texas Hill Country Reservoir Marcos J. De Jesus	Discussion Solomon David	Electrical Threshold Parameters for Immobilization of Nile Tilapia Jan Dean	Expectations and Insights about Large River Floodplain Restorations: Floods, Invasive Species and Stakeholder Tradeoffs Andrew F. Casper
4:40 PM			Understanding How Standardized Spring Electrofishing Surveys Index Reservoir Largemouth Bass Density and Size Structure Stephen Tyszko	Discussion

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	Best Student Papers and Posters (Symposium)	Cooperative Fisheries Research I	Fisheries in the "Scapes"	PSAT Challenges and Solutions
9:40 AM	Lake Sturgeon Movements after Passage Upstream of Two Hydroelectric Dams on the Menominee River, Wisconsin-Michigan Joshua Schulze	A Framework for Cooperative Research and Management Richard S. McBride	From the Land to the Sea: What Can Landscape Ecology Do for the Study of Waterscapes? Kimberly With	An Overview of the Argos System Thomas Gray
10:00 AM	Inter-Individual Differences in Stress Responsiveness Drive Vulnerability to Angling in Largemouth Bass Michael Louison	Cooperative Research at the Northwest Fisheries Science Center: Improving Fisheries Management through Scientific Partnerships Keith L. Bosley	The Need for Relevant Hydrologic and Environmental Data for Studies of Freshwater Species Distributions and Diversity Jason Knouft	Tagging Atlantic Salmon with Psats in West Greenland Mark D. Renkawitz
10:20 AM	Using Occupancy Modeling to Improve the Accuracy of Electrofishing Abundance Estimates for Riverine Smallmouth Bass Robert Mollenhauer	Cooperative Research in the Gulf of Mexico, Providing Data for Stock Assessments Linda Lombardi	Mobile Organisms in the 'Scape': Patterns, Consequences, and Challenges Martha Mather	Inferring Marine Distribution of Adult Atlantic Salmon Using a Hidden Markov Model John Fredrik Strøm
10:40 AM	Guild Based Habitat Use and Environmental Drivers of Fish Community Change in the Upper Mississippi River System Christopher Schwinghamer	Cooperative Fisheries Research and Management in Missouri's Big Rivers Dave Herzog	Effective Aquatic Conservation Requires Fisheries Research for the "Scape" Jason Luginbill	Getting a Bigger Picture: Combining Acoustic and Satellite Telemetry to Document Migration and Habitat Use of Immature Female Blue Sharks (<i>Prionace glauca</i>) Fred Whoriskey
11:00 AM	Relationships Among Biotic Indices and Their Responses to Ecological Gradients in Least- Disturbed Ozark Streams Jacob Schwoerer	50 Years of Collaboration: The National Marine Fisheries Service Cooperative Shark Tagging Program <i>Brian Gervelis</i>	Big River Fisheries in the 'Scapes' Dave Herzog	Development and Validation of an Hmm-Based Geolocation Method Using Archival Tagging Data for Atlantic Cod Chang Liu
11:20 AM	Bre	eak	Viewing Streams As a Habitat Mosaic; Implications for Riverscape Ecology and Stream Conservation Sean Hitchman	Assessing the Accuracy of Light-Based Underwater Positioning Algorithms Using Data from ARGOS- Tracked Leatherback Sea Turtles Rémy Lopez
11:40 AM		Lunch Break		

Room	Chouteau A	Chouteau B	Empire A	Empire B
	Best Student Papers	Cooperative Fisheries	Fisheries in the "Scapes"	PSAT Challenges and
Time	and Posters	Research I		Solutions
	(Symposium)			
	Physiological	The Importance of		
	Differences in	Stakeholder		
	Largemouth Bass	Collaboration to		
	Populations from	Marine Fisheries		
	Thermally Influenced	Research in Mississippi		
12:40 PM	Powerplant Cooling	Jeremy M. Higgs		
	Reservoirs Suggest			
	Rapid Adaptation to			
	Increased Thermal			
	Regimes			
	Dalon White			
	Using Food Web	Collaborative Is the	Effects of Riparian Patch	Assessing Movement of
	Modeling to Determine	New Cooperative: An	Structure on Cumulative	Adult Silver Carp and
	Effects of Increased	Example from Cod	Network Thermal Regimes	Bighead Carp in the Upper
	Exploitation on	Spawning Research in	Valerie Ouellet	Illinois Waterway System
1:00 PM	Invasive Carps in the	the Gulf of Maine		Using GPS Satellite and
	Middle Mississippi	Christopher McGuire		Radio Telemetry
	River			Andrew Mathis
	Nick Kramer			
	Habitat Use of	Using Socio-Economic	Banded Sculpin (Cottus	Determining Location from
	Macrhybopsis Chubs	and Fisheries	carolinae) Life History	Pop-up Satellite Archival
	and Population	Involvement Indices to	Trait Variation Across a	Transmitters When Earth
	Structure of Shoal Chub	Understand Alaska	Stream Size Gradient	Main Field Geomagnetic
	in the Upper	Fishing Community	Amy Gebhard	Data Is Insufficient: A Case
1:20 PM	Mississippi River Basin	Well-Being		Study with Lake Sturgeon in
	Sarah Gaughan	Stephen Kasperski		Eastern Lake Erie Lori Davis
	Relation of Intersex and	The Great Lakes to Gulf	Effects of Large Wood and	Using Pop-up Satellite Tags
	Fish Health to	Observatory –	Log Jams on Eastern Slope	to Uncover Bathymetric and
	Contaminants in	Facilitating the	Rocky Mountain Trout	Environmental Habitat
	Riverine Fishes	Progression of Data to	Populations	Selection in Lake Trout
1:40 PM	Casey A. Grieshaber	Knowledge to Policy	Adam Herdrich	Morphotypes in Lake
1.40 FWI	Sussey III Gricomuci	Edward Kratschmer	Treestile TTO I MI POIL	Superior
				Frederick Goetz
	Effects of Habitat	Collaboration to	Do Light Levels Affect the	Methods for Successful
	Rehabilitation Activities	Address Community	Movement of Topeka	Recovery of Pop-up Satellite
	on Fish Assemblages	Change: The Bass-	Shiner and Other Prairie	Tags: Finding a Needle in a
	and Populations in the	Walleye Project in	Stream Fishes through	Haystack
2:00 PM	Kootenai River, Idaho	Wisconsin	Long Box Culverts?	Michael Seider
	Philip Branigan	Daniel Isermann	Britney Mosey	

	Room	Chouteau A	Chouteau B	Empire A	Empire B
Ì		Best Student Papers	Cooperative Fisheries	Fisheries in the "Scapes"	PSAT Challenges and
	Time	and Posters (Symposium)	Research I		Solutions
		Effects of Habitat	Collaboration to	Do Light Levels Affect the	Methods for Successful
		Rehabilitation Activities	Address Community	Movement of Topeka	Recovery of Pop-up Satellite
		on Fish Assemblages	Change: The Bass-	Shiner and Other Prairie	Tags: Finding a Needle in a
		and Populations in the	Walleye Project in	Stream Fishes through	Haystack
	2:00 PM	Kootenai River, Idaho	Wisconsin	Long Box Culverts?	Michael Seider
Ļ		Philip Branigan	Daniel Isermann	Britney Mosey	
- 1		A Half-Moonlight	Estimation of Survival	Larval Fish Communities	Marine Movements of Dolly
- 1		Feast: Trophic Function	and Run Timing of	Differ Among Great Lakes	Varden in Northern Alaska,
- 1		of Postlarval	Adult Spring/Summer	Rivermouths	Evaluated Using Satellite
- 1		Amphidromous Goby	Chinook Salmon from	Jeffrey S. Schaeffer	Telemetry
- 1		Recruitment in	the Columbia River		Brendan Scanlon
- 1	2:20 PM	Caribbean Freshwater-	Estuary to Bonneville		
- 1		Marine Ecotones	Dam: A Cooperative		
- 1		Augustin C. Engman	Effort Between NOAA		
- 1			Fisheries and Columbia		
- 1			River Commercial		
- 1			Fishermen		
ŀ			Michelle Rub	T1 1 1 1 T 0	0 1 1 1
- 1				Islands in the Ice Stream:	Oceanic Movement, Behavior
- 1	2.40 DM	Bro	a a le	Were Spawning Habitats for Native Salmonids in the	and Mortality of Chinook Salmon Off Alaska,
- 1	2:40 PM	DIC	eak	Great Lakes Created By	Elucidated with Pop-up
- 1				Paleo-Ice Streams?	Satellite Tags
				Stephen C. Riley	Andrew Seitz
ı		Hybridization and	Integrating Fishermen's	1	
- 1		Replacement of	Knowledge with		
- 1		Roanoke Bass with	Empirical Data: The		
- 1		Invasive Rock Bass in	Case of Cod (Gadus		
- 1	3:00 PM	Virginia: A Genetic	morhua) Spawning	В	reak
- 1		Analysis of the	Groups and Alosines		
- 1		Problem	Edward Ames		
- 1		Jackman			
L		Eschenroeder			
		Environmentally-	The Eel Passage	Concentrated Animal	The Use of Geomagnetic
		Driven Fluctuations in	Research Center: Bi-	Feeding Operations and	Field Strength Measurements
		Condition Factor of	National Collaboration	Urban Effects in Nitrogen	to Produce Geo-Position
	3:20 PM	Adult Gulf Menhaden	at the Interface of	Isotopic Signatures of Fish	Estimates for PSAT Tagged
		(Brevoortia patronus) in	Research, Resource	in a Coastal Oligohaline	Marine Animals Beyond the
		the Northern Gulf of	Management, and	Estuary	Euphotic Zone
		Mexico	Regulatory Compliance	Jason J. Clermont	Marco Flagg
		Grant Adams	Paul T. Jacobson		

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	Best Student Papers and Posters (Symposium)	Cooperative Fisheries Research I	Fisheries in the "Scapes"	PSAT Challenges and Solutions
3:40 PM		The Influence of a Cooperatively Developed Portside Sampling and Bycatch Communication Program on Fisheries Management Policies" Bradley Schondelmeier	Can Freshwater Rivers and Offshore Reefs Contribute to the Resiliency of a Productive Estuarine Sport Fishery in Florida? Ross Boucek	Migratory Behavior for Black Marlin (Istiompax indica) and Blue Marlin (Makaira nigricans) in Northwestern Pacific Ocean Wei-Chuan Chiang
4:00 PM		Cooperative Research to Evaluate and Improve a Potential Incidental Catch Reduction Strategy Sara Turner	Understanding Spatial Linkages Between Terrestrial and Coastal Systems: Improving Conservation of Coastal Habitats Janet Hsiao	Utilization of Psat Technology in the Northern Indian Ocean: Hurdles and Prospects Kumar Nimit
4:20 PM		Using Collaborative Research to Better Manage the Nova Scotian Sea Cucumber Resource N. David Bethoney	Operationalizing Riverscapes Joseph Smith	
4:40 PM		NOAA Fisheries Cooperative Research Program Mark Chandler	Panel Discussion	

	Room	Empire C	Exhibit Hall B	New York A	New York B
	Time	Climate Change Effects on Inland Fish	No sessions scheduled in this room on Monday	Ecological Flow Science	Grass Carp Regulation and Management
	9:40 AM	Climate Change Effects on North American Inland Fish Physiology, Populations, and Assemblages Abigail J. Lynch		Ecological Water Science, Law, Policy, and Awareness: Instream Flow and Water Level Conservation - 50 Years of Challenges and Progress Christopher C. Estes	Micra's Recommendation for a National Policy Strategy for Grass Carp <i>Greg Conover</i>
	10:00 AM	Global Synthesis of Climate Change Effects on Inland Fish Bonnie Myers		Ups and Downs in Negotiating Stream Flow Management at the Taum Sauk Pumped Storage Project Del Lobb	Grass Carp Distribution and Status in the US <i>Pam Fuller</i>
	10:20 AM	Assessing Climate Impacts Based on Observed Fish Responses to Stream Temperature and Flow Metrics Nicholas Sievert		Developing a Baseline for Flow Releases below a Water Supply Reservoir on an Ungaged Stream Jason Persinger	Current Status of Reproducing Populations of Grass Carp in the United States Duane Chapman
	10:40 AM	Fish Trophic Interactions As Indicators of Climate Change in the Great Lakes Richard Kraus		Longitudinal Differences in Stream Habitat and Fish Assemblages Downstream of a Hydropeaking Dam Brett Landwer	Results of a U.S. National Ecological Risk Assessment for the Grass Carp Michael Hoff
	11:00 AM	Climate Change As a Driver of the Homogenization of New York's Stream Fish Fauna James R. Jackson		Development of a Stage-Specific Floodplain Inundation Model at a Large River Basin Scale: Comparison of Methods Based on Best Available Data Karim Aziz	Status of Grass Carp in the Canadian Waters of the Great Lakes Becky Cudmore
	11:20 AM	Climate Change and Flow Regulation Alter Fish Community Structure through Species-Specific Effects on Reproductive Phenology Trevor Krabbenhoft		Relationship Between Base Flow and Fish Communities within Karst Spring Complexes Cody Craig	The Measured Ecological Impact of Grass Carp <i>Marion Wittmann</i>
Ì	11:40 PM		Luncl	n Break	
ľ	12:40 PM				

Time On Some Service of Some S	imate Change Effects Inland Fish Inderstanding and edicting eterogeneous Thermal sponses of Inland eters to Climate earming etan Read Examination of Costs d Benefits for pturing Meaningful etro-Geomorphic iteria for Aquatic ota in Rivers	No sessions scheduled in this room on Monday	Using Existing Data to Examine Fish Community Changes Due to Stream Flow Alterations Emily Tracy-Smith The Relationships Between Flow Alteration	Grass Carp Regulation and Management A Synopsis of the National Triploid Grass Carp Inspection and Certification Program William Wayman Implementing a Triploid Grass
1:00 PM Res Wa Wa Jore An and Cap 1:20 PM Hye Cri Bio Gan Nat Dat Hel I:40 PM	edicting eterogeneous Thermal sponses of Inland atters to Climate arming edan Read Examination of Costs d Benefits for pturing Meaningful edro-Geomorphic iteria for Aquatic ota in Rivers		Examine Fish Community Changes Due to Stream Flow Alterations Emily Tracy-Smith The Relationships	Triploid Grass Carp Inspection and Certification Program William Wayman Implementing a Triploid Grass
and Cap 1:20 PM Hyo Cri Bio Gan Nat Dat Hel 1:40 PM Imp	d Benefits for pturing Meaningful vdro-Geomorphic iteria for Aquatic ota in Rivers		±	
Dat Hel 1:40 PM Imp	ırth Lindner		and Fish-Trait Combinations in a Large Great Plains River Shannon K. Brewer	Carp Program in Illinois Steve Shults
	tional and Regional ta Assets and Needs to lp Assess Climate pacts on Fish uniel Wieferich		Spatial Auto-Correlation of Fish Traits Across Hydrologic Regimes and Implications for Developing Ecological-Flow Relationships Lindsey Bruckerhoff	Grass Carp Management and Regulation in Kansas Doug Nygren
2:00 PM Clin	n We Get a Pulse? Ita Needs to Detect Imate Change Impacts Fish Populations Iniel B. Hayes		The Influence of Drought on Flow-Ecology Relationships in Ozark Highland Streams Daniel Magoulick	A Review of Grass Carp in Iowa: Commercial Harvest Trends, Vegetation Response after Lake Renovation, and Recent Efforts Regarding Policies and Rules Kim Bogenschutz
Stra Rec 2:20 PM Res Cha	ency Adaptation rategies and Inland creational Fishers sponse to Climate lange aig Paukert		The Role of Hydrology, Water Quality and Temperature in Determining Juvenile Atlantic Salmon Population Status Thomas Worthington	Minnesota's Efforts to Prevent Grass Carp Establishment Nick Frohnauer
2:40 PM Ada Cha	n the Front Lines: How e Florida Fish and ildlife Commission lapts to Climate nange bert Glazer	Break	Exploring Relationships Between Flow Variability and Low Flow Occurrence and Fish Assemblages in the Susquehanna River Basin Brianna Hutchison	Grass Carp and Neighborly Relations in Lake Erie <i>Tammy Newcomb</i>

Room	Empire C	Exhibit Hall B	New York A	New York B
Time	Climate Change Effects on Inland Fish	No sessions scheduled in this room on Monday	Ecological Flow Science	Grass Carp Regulation and Management
2:20 PM	Agency Adaptation Strategies and Inland Recreational Fishers Response to Climate Change Craig Paukert		The Role of Hydrology, Water Quality and Temperature in Determining Juvenile Atlantic Salmon Population Status Thomas Worthington	Minnesota's Efforts to Prevent Grass Carp Establishment Nick Frohnauer
2:40 PM	On the Front Lines: How the Florida Fish and Wildlife Commission Adapts to Climate Change Robert Glazer		Exploring Relationships Between Flow Variability and Low Flow Occurrence and Fish Assemblages in the Susquehanna River Basin Brianna Hutchison	Grass Carp and Neighborly Relations in Lake Erie <i>Tammy Newcomb</i>
3:00 PM		Break		
3:20 PM	Can Resilience Concepts Improve Management and Restoration? a Resilience Assessment of the Upper Mississippi River System Kristen Bouska		Addressing Flow Regime at a Regional Scale in the Southeast Jessica Graham	Population Demographics and Early Life History of Grass Carp in the Upper Mississippi River <i>Christopher J. Sullivan</i>
3:40 PM	Managing for Smallmouth Bass in a Changing Climate Cindy Chu		Opportunities for Protecting and Restoring Environmental Flows and Water Levels in Texas Kevin Mayes	Grass Carp Population Dynamics in the Middle Mississippi River Michael Wolf
4:00 PM	Impact of Climate Variability on the Spawning Migrations of American Shad in the Connecticut River – a Multidecadal View Jason Boucher		Validation of an Environmental Flow Recommendation in Texas David Ruppel	A Novel Field Technique to Assess Ploidy in Introduced Grass Carp (Ctenopharyngodon idella) Michael Durkalec
4:20 PM			Protecting Aquatic Life from Effects of Streamflow Alteration Jonathan Kennen	Grass Carp Industry Perspective: Impacts and Consideration <i>Mike Freeze</i>
4:40 PM			History of AFS Advocacy for Instream Flow, Water Level Conservation and Policy Development and What's Next Dennis Riecke	Panel Discussion

Room	Van Horn B	Van Horn C
Time	Sea Grant's Role in Research, Outreach and Building Partnerships along the Mississippi River	MSE, Assessment, and Uncertainty
9:40 AM	Keynote Presentation – Fisheries Management from the Great Lakes to the Gulf: Sea Grant's Role in Research, Outreach and Building Partnerships Along the Mississippi River Robert Twilley	Using Time-Varying Asymptotic Length and Body Condition of Top Piscivores to Indicate Ecosystem Regime Shift in the Main Basin of Lake Huron: A Bayesian Hierarchical Modeling Approach Ji X. He
10:00 AM	Bridging the Gap: The Role of University Centers in Moving Nutrient Science to Decision Making Brian Miller	Simulation-Based Evaluation of Assessment Approaches for Intermixing Fish Populations Matthew Vincent
10:20 AM	Sea Grant's Involvement in Mississippi River Valley Collaborative Efforts Michael Liffmann	Sensitivity of a Multisystem Length Limit Model Andrew Shamaskin
10:40 AM	Wisconsin Sea Grant's Efforts to Stop Aquatic Hitchhikers! <i>Titus Seilheimer</i>	Improved State-Space Models for Pacific Salmon Stock-Recruitment Analysis Zhenming Su
11:00 AM	The Duality of Asian Carp Monitoring: Protecting the Great Lakes While Providing Insight into Fish Species Distribution and Abundance in the Chicago Area Waterway System *Tristan Widloe**	Conservation and Yield Performance of Harvest Control Rules for the Transboundary Pacific Hake Fishery in U.S. and Canadian Waters Allan Hicks
11:20 AM	Louisiana Master Farmer Program: Conservation Stewardship with Education, Demonstration, and Implementation Ernest Girouard	Management Strategy Evaluation to Compare Sampling Programs in the Southeastern U.S <i>Michael J. Wilberg</i>
11:40 AM	Lunch Break	
12:40 PM		
1:00 PM	Ohio's Clean Marinas Program: Impacting Water Quality through Outreach Sarah Orlando	Multiple Models for Marine Fisheries Management: What Fisheries Science Can Learn from Other Disciplines Howard Townsend
1:20 PM	Land Grant Universities in Mississippi River Basin Collaborative Response to Hypoxia in Gulf of Mexico John Westra	Performance of Catch-Only Models at Providing Management Guidance for Unassessed Data-Limited Fish Stocks Jessica Walsh
1:40 PM	A Unique Solution to a Common Problem - Solving Agricultural Runoff into Two Great Water Bodies of the US Robert Kröger	Quantitative Decision-Support Tools for Dam Passage Performance Standards in the Northeast US <i>Dan Stich</i>
2:00 PM	Discussion	Long Term O&M Cost Benefit Analysis of Implementing 316(b) Compliant Alternatives Dagoberto Solis

Room	Van Horn B	Van Horn C
Time	Sea Grant's Role in Research, Outreach and Building Partnerships along the Mississippi River	MSE, Assessment, and Uncertainty
1:20 PM	Land Grant Universities in Mississippi River Basin Collaborative Response to Hypoxia in Gulf of Mexico John Westra	Performance of Catch-Only Models at Providing Management Guidance for Unassessed Data-Limited Fish Stocks Jessica Walsh
1:40 PM	A Unique Solution to a Common Problem - Solving Agricultural Runoff into Two Great Water Bodies of the US Robert Kröger	Quantitative Decision-Support Tools for Dam Passage Performance Standards in the Northeast US Dan Stich
2:00 PM	Discussion	Long Term O&M Cost Benefit Analysis of Implementing 316(b) Compliant Alternatives <i>Dagoberto Solis</i>
	EFH Science into Management	
2:20 PM	Looking Ahead for Habitat Assessments in NOAA Fisheries Stephen Brown	Efficiency of the Maine Lobster Fishery Mackenzie Mazur
2:40 PM	Revising the Essential Fish Habitat Conservation Areas of the Pacific Coast Groundfish Fishery Management Plan John Stadler	Discussion
3:00 PM	Break	
3:20 PM	Using Acoustic Telemetry to Map Atlantic Cod Spawning Activity and Inform Fishery Management in the Gulf of Maine Douglas Zemeckis	
3:40 PM	Exploring Essential Fish Habitat Delineation for Atlantic Highly Migratory Species – Methods, Challenges, and Future Research Needs Jennifer Cudney	
4:00 PM	Assessing Essential Fish Habitat for a Marine Pelagic Fish Stephen Brandt	
4:20 PM	Bioeconomic Optimization of Hawaiian Bottomfish Restricted Fishing Areas: An Application of Habitat-Based Species Distribution Modeling Zack Oyafuso	
4:40 PM		

Room	Atlanta	Chicago A	Chicago B	Chicago C
	Reservoir Fisheries	Freshwater Fisheries	Weithman Legacy	Movement and Aquatic
Time	Habitat Restoration II	Management I	Symposium	Organism Passage I
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	Alternative Fish Habitat		A. Stephen Weithman –	Temporal Shift in Sheepshead
	Funding within the	Fingerling Stocking to	His Legacy Remembered	Movement Patterns in Texas
	Community: A	Walleye Abundance in	Vince Travnichek	in 20th Century
9:40 AM	Partnership with Shell	Northern Wisconsin		Gary C. Matlock
	Appalachia	Lakes		
	Ben Page	Dan Dembkowski	E . D 1	D : (137:1-36-11
	Small Reservoirs Can	Stock Structure,	Ecosystem-Based	Environmental Niche Models:
	Still Present Large	Dynamics, and	Fisheries Management:	Distribution and Seasonal
	Rehabilitation	Demographics of	The 2016 Context for	Movements of the Ocean
	Challenges!	Walleyes Spawning in	New England and Mid-	Sunfishes
	Caleb Huber	Tributaries to Green	Atlantic Fishery	Natasha Phillips
10:00 AM		Bay Daniel Isermann	Management Council and Stakeholder 2013	
		Daniei Isermann		
			Perspectives	
	Largescale Habitat	Estimating Genetic	Ingrid S. Biedron Using Fish Consumption	A Bayesian Model to Estimate
	Improvement on Table	Diversity Levels and	Data to Estimate Inland	Movement Rates from
	Rock Lake	Sampling Effort	Fisheries Harvest	Historical Tagging Data and
	Michael J. Allen	Required for	So-Jung Youn	Catch per Unit Effort Data for
10.20 434	Michael J. Allen	Wisconsin's Walleye	So-jung 10un	Atlantic Tropical Tunas
10:20 AM		Propagation Program		Michelle Sculley
		Michael Vaske		Michelle Scalley
	Installation and	Identifying	A Mixed Logit Model	Multi-Scale Examination of
	Evaluation of Fish	Recruitment	Approach to Investigate	Estuarine Habitat Use and
	Habitat Structures in	Bottlenecks for Age-0	Trout Angler Preferences	Migration of Southern
	Bull Shoals Lake,	Walleye Sander	for Fishing Site Attributes	Flounder (Paralichthyes
10:40 AM	Missouri	Vitreus in Northern	Scott Knoche	lethostigma) with Implications
10.10 11.11	Nathan Recktenwald	Wisconsin Lakes		for Novel Fisheries
		Jason Gostiaux		Management Approaches
				Lisa Hollensead
	Sticks and Stones: A	Assessment of Growth	2007 Weithman Winner:	Oceanographic and Climate
	Cooperative Effort to	and Relative Survival	Implications of Reduced	Effects on Migratory
	Increase Fish Habitat in	of Diploid and	Stocking Frequencies on	Propensity of a Hawaiian
	Smithville Lake,	Triploid Saugeye in	Fishing Quality in the	Freshwater Fish
11:00 AM	Missouri	Kansas	Arkansas Urban Fishing	Heidi Heim-Ballew
	Eric Dennis	Impoundments	Program	
		Jeff Koch	Tom Lang	
	Winter Brushpile	Vertical Habitat Use of		Movement of Tagged Gizzard
	Installation in Small	Walleye Conflicts with		Shad in a Large Missouri River
	Missouri Reservoirs	Expectations from Gill		Reservoir
11:20 AM	Tory Mason	Net Surveys		Hilary Meyer
		Ann Marie Gorman		
11:40 AM		Lunch Break		
12:00 PM				
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Room	Atlanta	Chicago A	S—Tuesday, August 23 Chicago B	Chicago C
	Reservoir Fisheries	Freshwater Fisheries	Weithman Legacy	Movement and Aquatic
Time	Habitat Restoration II	Management I	Symposium	Organism Passage I
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	Winter Brushpile	Vertical Habitat Use of		Movement of Tagged Gizzard
	Installation in Small	Walleye Conflicts with		Shad in a Large Missouri River
11.00.434	Missouri Reservoirs	Expectations from Gill		Reservoir
11:20 AM	Tory Mason	Net Surveys Ann Marie Gorman		Hilary Meyer
11.40.434				
11:40 AM		Lunch Break	T	
12:00 PM			Blue Catfish	
			Management &	
	T	DCC . CFD 1 . 1	Opportunism	P.1.1. CO. 17
	Engaging Anglers in	Effects of Turbidity on	Unwanted Guests and	Relations of Crappie (Pomoxis
	Missouri through	Foraging of Black and	Stomach Contents:	spp.) Abundance and Size
	Mobile Apps and GIS	White Crappie	Trophic Dynamics of	Structure to Hydrologic
	Technologies	Sara Andree	Sympatric Native (White	Connectivity of Oxbows in the
	Alex Prentice		Catfish <i>Ameiurus catus</i>) and Non-Native (Blue	Dale Bumpers White River
1:00 PM			· ·	National Wildlife Refuge, Arkansas
			Catfish <i>Ictalurus furcatus</i>) in Chesapeake Bay	
			Rob Aguilar	Billy Justus
1:20 PM	Building Them Right	Effect of Elevated	Blue Catfish Gut	Watershed Structure and
1:20 PM	the First Time:	Nutrients and	Contents: An Assessment	Isolation-By-Distance Drives
	Nebraska's New	Sediments on Growth	of Feeding Adaptation in	Genetic Structure of a
	Reservoir Technical	of Juvenile Black and	Response to Asian Carp	Dispersal Limited Species, the
	Assistance Program	White Crappies	Invasion in the	Rocky Mountain Sculpin
	Tony J. Barada	David Bogner	Mississippi River Basin	(Cottus sp.)
	Tony J. Darwa	Buriu Bogner	Tad Locher	Jonathan Ruppert
	Kentucky's Fish Habitat	Elucidating the	Omnivory or Piscivory in	Survival, Movement, and
	Program: Past, Present,	Mechanisms of	Non-Native Blue Catfish	Distribution of Juvenile
	Future	Juvenile Fish	in Tidal Rivers	Burbot in a Tributary of the
1:40 PM	Jeremy Shiflet	Recruitment in the	Jason Emmel	Kootenai River
		Middle Mississippi		Zachary S. Beard
		River		,
		Tyler Ham		
	Development of	Implementation of a	Identifying Overall,	Exposure to Elevated CO2
	Indiana's Reservoir	23 Cm Crappie	Seasonal, and Diel	Alters Diel Movement
	Enhancement Program	Minimum Length	Patterns for Reservoir-	Patterns of Largemouth Bass
	through the Creation of	Limit at Two Indiana	Wide Distribution of Blue	over Short Time Scales
	a Habitat Enhancement	Impoundments	Catfish: Filling Critical	Caleb Hasler
2:00 PM	Zone	Andrew Bueltmann	Gaps for Fish Ecology and	
	Sandra Clark-Kolaks		Fisheries Management	
			Kayla Gerber	

Room	Atlanta	Chicago A	Chicago B	Chicago C
	Reservoir Fisheries	Freshwater Fisheries	Blue Catfish	Movement and Aquatic
Time	Habitat Restoration II	Management I	Management &	Organism Passage I
			Opportunism	
		Impact of Water	Providing Enhanced	Movements and Habitat Use
		Temperature on the	Protection for Blue	of Guadalupe Bass Using
		Survival of Angler-	Catfish at Truman	Radio Telemetry in the Lower
2:20 PM		and Tournament-	Reservoir and Lake of the	Colorado River, Texas
		Caught Largemouth	Ozarks MO	Jessica Pease
		Bass	Mike Bayless	
		Kevin R. Keretz Assessment of	Correlates of the Whole-	Diel and Seasonal Activity of
		Channel Catfish	System Distribution of a	the American Eel (Anguilla
		Population Dynamics	Reservoir Predator (Blue	Rostrata) in the Upper St.
		and Tandem Hoop	Catfish, Ictalurus	Lawrence River Determined
		Nets As a Standard	furcatus)	By Acoustic and Radio
2:40 PM		Sampling Method in	Martha Mather	Telemetry
		Tennessee Reservoirs		Colleen Burliuk
		Cole Harty		
3:00 PM		Break		
		Behavioral Syndromes	Seasonal and Diel	How Changes in Passage
		and Learned Hook	Patterns of Depth and	Efficiency of Alewife at Main
		Avoidance in	Temperature Distribution	Stem Dams Can Influence
3:20 PM		Ambloplites Rupestris	of Blue Catfish in Milford	Nutrient Dynamics in the St.
		Alexis Fedele	Reservoir, KS Joseph Smith	Croix River, ME Betsy Barber
		700 1 7 1 1		,
		Effective Population	Recruitment and	The Fate of Hatchery-
		Control of Invasive	Population Dynamics of Blue Catfish in the Ohio	Spawned Atlantic Salmon Released into the Penobscot
3:40 PM		Largemouth Bass in Japanese Reservoirs, in	River	River, ME
5:40 PM		Relation to Water	Devon C. Oliver	Joseph Zydlewski
		Level Management	Beron G. ouver	Joseph Zyulewski
		Katsuki Nakai		
		Physiological	Spatiotemporal	Migratory Delay of
		Justification for Using	Variability in Individual	Anadromous River Herring at
		Air-Based Degree-	Blue Catfish Growth	Anthropogenic Obstacles on a
		Days to Describe	during Introduction and	Small Coastal Stream
4:00 PM		Annual Fish Growth	Expansion in Virginia	Derrick Alcott
		Andrew Honsey	Tidal Rivers	
		A Diversified	Corbin D. Hilling	
		Management	Population Dynamics Variation of Blue Catfish	
		Approach Address	during Its Introduction	
4:20 PM		Heterogeneous	and Expansion in Virginia	
7.20 1 1/1		Anglers in	Tidal Rivers: A Bayesian	
		Recreational Fisheries	Hierarchical Approach	
		Brett T. van Poorten	Yan Jiao	

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Reservoir Fisheries Habitat Restoration II	Freshwater Fisheries Management I	Blue Catfish Management & Opportunism	Movement and Aquatic Organism Passage I
4:40 PM		Individual-Based Model Describes Behavioral Feedbacks Between Anglers and Sportfish Nicholas Cole		

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	140 Character Fisheries Science	Cooperative Fisheries Research II	Angling Participation Symposium I	Release and Discard Mortality Estimation- Tuesday
9:40 AM	The Role of Modern Communications Technology in Marine Science and Conservation David Shiffman	Ecosystem Services and Cooperative Fisheries Research to Address a Complex Fishery Problem Joel Hoffman	Introduction: An Examination into Influencing the Future of Angling Participation to Sustain Conservation Support Tom Lang	Using a Simple Multi- Attribute Rating Technique to Prioritize Release and Discard Mortality Needs Lee Benaka
10:00 AM		Micra's Role in Cooperative Asian Carp Management and Control in the Mississippi River Basin Greg Conover	Angling and the North American Model of Wildlife Conservation J. Wesley Neal	When Dead Fish Keep Swimming: Short-Term Biotelemetry of Walleye and Sauger after Catch and Release Christopher Somers
10:20 AM	Blogs: A New(ish) Niche in the Scientific Communication Ecosystem Jeremy Fox	Cooperative Implementation of Florida's Black Bass Management Plan Allen Martin	Efforts and Vision of the Blue Ribbon Panel on Sustaining America's Diverse Fish & Wildlife Resources Ryan Roberts	Post Release Survival and Behavior of Deep-Dwelling Rockfishes (genus Sebastes) Suffering from Barotrauma: Using Recompression Devices to Reduce Bycatch Mortality Nick Wegner
10:40 AM		Florida's Tarpon Genetic Recapture Study – a Citizen Science Success Story Kathryn Guindon	Cohort driven social change: Understand the broad shift away from hunting and fishing <i>Loren Chase</i>	A Science-Industry Based Partnership to Estimate Discard Mortality and Derive Best Catch-and-Release Guidelines for Haddock in the Gulf of Maine Rod-and- Reel Fishery John Mandelman
11:00 AM	Should You (or your journal) be Tweeting about Your Research? a Quantitative Analysis Brandon Peoples	Incorporating Expertise from the Recreational Fishery to Determine Discard Mortality Estimates for Gray Snapper in a West-Central Florida Estuary and Adjacent Nearshore Gulf of Mexico Waters <i>Kerry Flaherty-Walia</i>	Will the Baby Boom Bust Us? a Consideration of the Impacts on Revenue from an Aging Customer Population Alejandro Farias	Hooking and Handling Mortality of Trout Captured in the Bald Eagle Creek Tournament Robert Carline
11:20 AM	Is Social Media Being Used Effectively to Educate Anglers? Julie Claussen	Evaluating Cooperative Research Longline Vs. Bottom Trawl Survey Results: Improving Stock Assessments Loretta O'Brien	From Across the Pond: Angling participation and angling's social benefits in the UK Adam Brown	Evidence of Low Discard Mortality for a Deep-Water, Demersal IUCN Red List Fish Species Caught Via Hook-and-Line Todd Kellison, PhD

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	140 Character Fisheries Science	Cooperative Fisheries Research II	Angling Participation Symposium I	Release and Discard Mortality Estimation- Tuesday
11:20 AM	Is Social Media Being Used Effectively to Educate Anglers? Julie Claussen	Evaluating Cooperative Research Longline Vs. Bottom Trawl Survey Results: Improving Stock Assessments Loretta O'Brien	From Across the Pond: Angling participation and angling's social benefits in the UK Adam Brown	Evidence of Low Discard Mortality for a Deep-Water, Demersal IUCN Red List Fish Species Caught Via Hook-and-Line Todd Kellison, PhD
11:40 AM		Lunch Break		Effects of Multiple Capture Events on Estimation of Discard Mortality and Number of Releases in Southeastern US Reef Fishes Jeffrey A. Buckel
12:00 PM				Discard Mortality of Black Crappie in Florida <i>Andrew Schaefer</i>
1:00 PM	Norman the Sturgeon and Other Fish Stories <i>Travis Moore</i>	Gulf of Maine Data-Poor Species Assessments Enhanced By a Cooperative Bottom Longline Survey W. David McElroy	Working Toward a Better Understanding of Angler Behavior Thru Human Dimensions Research Kevin Hunt	
1:20 PM	Using Social Media to Promote and Interact with Anglers for Trophycatch John Cimbaro	Utilizing Local Angler Groups for Dissolved Oxygen Data Collection in Large Highland Reservoirs Paul Port	Net Economic Values for Bass, Trout, and Walleye Fishing Richard Aiken	
		Inland Drivers of Coastal Hypoxia		
1:40 PM	Marlin in the Media: The Benefits of Social Media to Igfa's Billfish Tagging Program Leah Baumwell	Effects of Hypoxia and Co-Stressors on Early Life-Stages of Estuarine Fishes: Examples from NE USA Estuaries R. Christopher Chambers	A Statewide Assessment of Florida Freshwater Anglers: Motivations, Preferences, Attitudes, and Value Orientations <i>Nia Morales</i>	Estimating the Discard Mortality Rate of Sea Scallops Following Capture and Handling in the Commercial Dredge Fishery David Rudders

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	140 Character Fisheries Science	Inland Drivers of Coastal Hypoxia	Angling Participation Symposium I	Release and Discard Mortality Estimation- Tuesday
2:00 PM	The International Pacific Halibut Commission and Social Media: Lessons Learned from the First 3 Years on Facebook and Twitter Ed Henry	Effects of Sublethal Hypoxia Exposure Recorded in Otoliths of the Ubiquitous Atlantic Croaker (Micropogonias undulatus) in the Northern Gulf of Mexico Matthew Alterritter	Customer Segmentation of Catfish Anglers Using a Survey of Stated Preferences to Guide Management Decisions and Ensure Optimal Customer Service John Taylor	Determining Incidental Discard Mortality of Atlantic Sea Scallops in the Scallop Dredge Fishery in the Mid- Atlantic Bight Eleanor Bochenek
2:20 PM	Hashtag Fish: Garnering Connections Among Peers, the Public, and Conservation Solomon David	Effects of Productivity Gradients on Fish- Community Structure in Lake Erie Casey Yanos	Applying Human Dimensions Insights to Establish Recreational and Conservation Balance for a Trophy Fish Species Corey A. Jager	Evaluating the Condition and Discard Mortality of Winter Skate, Leucoraja Ocellata, Following Capture and Handling in the Sink Gillnet Fishery James Sulikowski
2:40 PM	Face-Booked: The Role of Social Media in Wildlife Law Enforcement Daniel Schepis	Corn & Shrimp: Mississippi Basin Landscape Design for Wildlife, Water Quality and Agriculture Gwen White	Bowfishing Anglers: A Missing Piece of the Angler Recruitment Pie Dustin Martin	Incorporation of Discard Mortality in Walleye Stock Assessment for Saginaw Bay, Lake Huron David G. Fielder
3:00 PM		Break		Development of a Multi-Fish Descending Device in the Mid-Atlantic: Cooperative Barotrauma Research with the Recreational for-Hire Industry Susanna Musick
3:20 PM	How to Maximize Science Communications Resources through Social Media Martha Wilson	Agricultural Producer Motivations for Adopting Conservation Practices for Wildilife and Water Quality in Iowa and Indiana Ajay Singh	Recruitment and Retention of Anglers: Opportunities and Barriers Christian Waters	Impaired Reflexes As a Measure of Delayed Mortality in Recreationally Caught Yellowtail Snapper (Ocyurus chrysurus) Francesca Forrestal
3:40 PM	Trials and Tribulations of Social Media in College Education Donald Orth	Implications of Future Bioenergy Production for Water Quality and Quantity in the Mississippi River Basin Henriette Jager	Do Fish Drive Recreational Fishing Licence Sales? Len Hunt	Tuesday Afternoon Break

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	140 Character Fisheries Science	Inland Drivers of Coastal Hypoxia	Angling Participation Symposium I	Release and Discard Mortality Estimation- Tuesday
4:00 PM	Riding the wave of social: tips and tactics for listening on social media <i>Danielle Brigida</i>	Runoff Risk: A Decision Support Tool for Nutrient Application Timing Dustin Goering	Angler Demographics and Participation at a Leased Fishing Access Site in Texas Greg Cummings	Size-Related Mortality of Largemouth Bass Released at Various Stages in a Tournament J. Warren Schlechte
4:20 PM	Synthesizing the Roles of Social Media in Fisheries Science: A Call-to- Action Patrick B. Cooney	Restored Oxbows Provide Multiple Benefits for Water and Wildlife Karen Wilke	Catch and Release: The Effectiveness of an Educational Class on Anglers Caught with Fishing Citations Steven Saul	Evaluating the Efficacy of Descender Devices in Increasing the Survival of Deepwater Groupers Using Telemetry Brendan Runde
4:40 PM	Panel Discussion	Panel Discussion	Combining Actual and Stated Behavior Data to Measure the Economic Impacts of Catch and Release Regulations in a Vulnerable Recreational Fishery Richard Melstrom	The Use of Acoustic Telemetry and Conditional Reasoning to Estimate the Discard Mortality of Atlantic Cod in the Gulf of Maine Recreational Rod-and-Reel Fishery Connor Capizzano

Room	Empire C	Exhibit Hall B	New York A	New York B
Time	Hydrology and Nonnative Aquatic Species	Wild Jobs Café Michelle Dobbins, Moderator	Increasing Participation of Minority Groups in Fisheries	Centrarchids in Streams I
9:40 AM	The Illinois Waterway: A View of the Hydrodynamics and Habitat through the Eyes of Bigheaded Carp James Duncker		Introductory Remarks	A Transition of Management Strategies for Native Riverine Black Bass Species Vance Crain
9:50 AM			Introduction of Guests	
10:00 AM	Assessing Spawning and Hatch Locations of Naturally Spawned Grass Carp Eggs in a Great Lakes Tributary Holly Embke	How to Dress for Success	Short Presentations from Accepted Papers	
10:20 AM	Fore- and Back-Casting Recruitment Potential of Grass Carp in the Sandusky River Using Known Recruitment Events Patrick Kocovsky		Panel Discussion	Evaluating the Status and Trends of Smallmouth Bass Populations in Michigan Streams and Rivers Jan-Michael Hessenauer
10:40 AM	Grass Carp Reproduction in Small, Hydrologically Erratic Reservoir Tributaries: Implications for Range Expansions and Establishment of Asian Carps in Novel Habitats <i>Michael Bayless</i>			
11:00 AM	Evaluating Upstream Passage and Associated Movement Patterns of Adult Asian Carp at a Gated Dam on the Illinois River Matthew Lubejko	Resume Review and Interview Tips		Assessing Smallmouth Bass Trophic Position in a Hierarchical River Network Using Stable Isotope Methods Oliver Nettere
11:20 AM	Timing and Hydrological Conditions Associated with Bigheaded Carp Movement Past Navigation Dams on the Upper Mississippi River Jon Vallazza	Lunch B	Concluding Remarks	Population Characteristics, Connectivity and Recruitment Sources of Spotted Bass in Southern Illinois Streams Nicholas Abell
11:40 AM		Lunch B	геак	

Room	Empire C	Exhibit Hall B	New York A	New York B
Time	Hydrology and Nonnative Aquatic Species	Wild Jobs Café Michelle Dobbins, Moderator	Increasing Participation of Minority Groups in Fisheries	Centrarchids in Streams I
1:00 PM	First Reproduction of Asian Carps Revealed in an Artificial Canal Network of Western Europe Marco Milardi	Resume Review and How to Dress for Success		Population and Life-History Characteristics of Two Black Bass Species in the Flint River System, Georgia Steven Sammons
1:20 PM	Insights into the 2015 Invasion of Mississippi River Tributaries in Arkansas By Young-of- Year Silver Carp (Hypophthalmichthys molitrix) Casey Cox			Using Species Distribution Models to Infer Potential and Restricted Ranges of a Fluvial- Specialist Black Bass Species Andrew T. Taylor
1:40 PM	Predicting Potential Asian Carp Spawning in the Tributaries and Nearshore of the Canadian Great Lakes Basin Tej Heer			Genetic Relationships of Largemouth Bass from Different Habitats within Coastal Rivers of Northwest Florida Matthew Wegener
2:00 PM	Assessing Bigheaded Carp on the Southeastern Leading Edge of Their North American Invasion Josey Ridgway			Life History Information of Choctaw Bass <i>Micropterus</i> <i>Haiaka</i> , a Newly Described Species of Black Bass <i>Katie Woodside</i>
2:20 PM	Hydrological Conditions Associated with Bigheaded Carp Spawning in Two Iowa Tributaries to the Upper Mississippi River Kyle Mosel	Interview Tips		
2:40 PM	Native Congener Richness, Not Abiotic Factors, Predicts Cyprinid Introductions Stephen Midway			Analysis of Factors Influencing Rock Bass Population Dynamics in an Ozark Border Stream Joshua G. Ward
3:00 PM	Break	Mock Interviewing	Break	Break
3:20 PM	Success in Lakes and Failure in Streams: The Rusty Crayfish Invasion William Perry		General Fisheries I	Recovery of River Herring Alosa Spp. Influences Smallmouth Bass Micropterus Dolomieu Diet and Growth in the Penobscot River, Maine Jonathan Watson

Room	Empire C	Exhibit Hall B	New York A	New York B
Time	Hydrology and Nonnative Aquatic Species	Wild Jobs Café Michelle Dobbins, Moderator	General Fisheries I	Centrarchids in Streams I
3:40 PM	Hydrologic Factors Associated with Detection and Occupancy of Riparian Areas By Asian Swamp Eel in the Chattahoochee River System, Georgia Jeffery Johnson		Lampricide Control of Sea Lampreys in the Great Lakes Shawn Nowicki	Long-Term Fish Community Response to a Reach-Scale Stream Restoration Patrick Shirey
4:00 PM	An Overview of Stream Flow Effects on Western Native/Nonnative Fish Interactions Scott A. Bonar		Control of Quagga Mussels with Potash: Trials of Efficacy in Different Source Waters Christine M. Moffitt	A Multifaceted Approach to Guadalupe Bass (<i>Micropterus</i> <i>treculii</i>) Restoration in a Texas Hill Country River <i>Stephan Magnelia</i>
4:20 PM	Consequences of an Altered Hydrologic Regime for Colorado River Fishes in Grand Canyon David Ward		Percent Contribution of Stocked Freeze-Branded Largemouth Bass to Age-1 Year Class in Arkansas Lakes Jeffery Buckingham	Reintroduction of the Extirpated Guadalupe Bass into a Newly Restored Reach of the Upper San Antonio River, Texas Christopher Vaughn
4:40 PM	Hydrological Disturbances Regimes and Their Impacts on Native and Non-Native Fish Communities in Aravaipa Canyon, Arizona Peter Reinthal		Directed Harvest of Asian Carps in Ukraine Dmytro Khrystenko	Success, Failure, or Somewhere in Between: Assessing Genetic Restoration of an Endemic Black Bass Population Paul Fleming

Room	Van Horn B	Van Horn C
Time	Hatchery Fish Biologist A Career for the Future	No Sessions scheduled in this room on Tuesday
9:40 AM	Charting a New Course for Fisheries Undergraduates in Alaska <i>Trent M. Sutton</i>	
10:00 AM	Fish Hatchery Biologist: A Career for the Future with Texas Parks and Wildlife Department Carl Kittel	
10:20 AM	Knowledge, Skills, and Competencies for a Fish Hatchery Biologist Steve Lochmann	
10:40 AM	Michigan DNR Fish Culture Professionals: What Additional Training Is Desirable? Ed Eisch	
11:00 AM	Texas a&M University Aquaculture/ Fisheries Curriculum <i>Michael Masser</i>	
11:20 AM	Fisheries Science at South Dakota State University – Building on History and Developing the Future in the Preparation of Fisheries Professionals Michael Brown	
11:40 AM	Lunch Brea	ak
12:00 PM		
1:00 PM	Training Future Fish Hatchery Scientists: Three Decades of Experience at the University of Arkansas at Pine Bluff Michael Eggleton	
1:20 PM	High Expectations and Great Opportunities: Changing the Culture of Fish Culture <i>Mike Barnes</i>	
1:40 PM	The Future Across the Interview Table: How Are Fish Hatcheries Hiring to Meet Tomorrow's Needs? Gary Byrne	
2:00 PM	Observations of a New Hatchery Biologist: Lessons Learned and Visions for the Future Jeremy Kientz	
2:20 PM	Preparation of Students As Fish Hatchery Biologists: An Academic Perspective from Auburn University Dennis R. DeVries	
2:40 PM	Developing Skill Sets for a Hatchery Career: What Makes You Marketable? Doug Aloisi	
3:00 PM	Breal	k
3:20 PM	A Career in the National Fish Hatchery System David Miko	

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Invasive Species Effects on the Coupling of Natural and Human Systems	Freshwater Fisheries Management II	Drought Impacts to Fisheries I	Movement and Aquatic Organism Passage II
9:40 AM	Coupling Recreational Fisheries and Phosphorous to Estimate Impacts of Nutrient Loadings on Freshwater Fishing Demand and Value Frank Lupi	Realized and Stated Preferences of Bank Angler Fishing Location within a Waterbody Brian S. Harmon	Welcoming Remarks	Effects of a New Fishway on Discontinuity of the Arkansas River Fish Community Casey Pennock
10:00 AM	Ecosystem and Fisheries Impacts of Asian Carp on Lake Michigan - the Atlantis Ecosystem Model Approach Hongyan Zhang	Evaluation of Vehicle Counters for Monitoring Angler Effort on Small Inland Lakes Janice Kerns	Tackling the Hydro-Illogic Cycle: Summary of Local, Regional, and National Drought Initiatives and Actions Christopher C. Estes	Hydraulic IMPACT on FISH Migration in Sariakandhi FISH PASS of Bangladesh Bijoy Kumar Ghosh
10:20 AM	Exploring the Tensions Challenging Asian Carp Management: The Role of Social and Scientific Uncertainty Adam Kokotovich	Angler Survey of the Regulated Reaches of the Tallapoosa River Fishery in Eastern Alabama Clint Lloyd	Freshwater Inflows for Bays and Estuaries: The Texas Approach Cindy Loeffler	Fishway Entrance Gate Orientation Effect on Upstream Migrating Adult American Shad (Alosa Sapidissima) Kevin Mulligan
10:40 AM	Property Owners' Willingness to Accept Natural Shoreline Conservation Programs on Their Inland Lake Properties in Michigan Joel Nohner	Understanding and Predicting Impacts of Commercial Harvest on White Suckers in Maine Megan Begley	Never Waste a Drought Crisis – Creating Instream Flow By Re-Routing Irrigation Water Jonathan H. Kohr	You Shall Not Pass!: Achieving Selective Fish Passage in the Presence of Invasive Species John Hume
11:00 AM	A New Process-Based System-Wide Model for Policy Exploration and Optimization Steven Saul	How Does Spatial Variability, Rewards, and Tag-Loss Impact Tag-Recapture Estimates of Exploitation Rate? Dana Sackett	Water Allocation in the Southeast: Stakeholder Governance and Decision Making Elise Irwin	Technical Developments in Fish Exclusion & Fish Passage <i>Andy Peters</i>
11:20 AM	Livelihood Interventions As Conservation Tools in Harvested Predator- Prey Systems Micah Cameron-Harp	Spatio-Temporal Variability in Size of Age-0 Blue Catfish in Chesapeake Bay Subestuaries Vaskar Nepal	Maintaining Mission Focus in the Face of a Historic Texas Drought Tom Lang	Migratory Behavior of Adult Sea Lamprey and Cumulative Passage Performance through Four Fishways Theodore Castro-Santos
11:40 AM		Lunch Bre	ak	

Schedule of Oral Presentations—Wednesday, August 24

Room	Atlanta	Chicago A	—wednesday, August 24 Chicago B	Chicago C
Time	Invasive Species Effects on the Coupling of Natural and Human Systems	Freshwater Fisheries Management II	Drought Impacts to Fisheries I	Movement and Aquatic Organism Passage II
1:00 PM	Farming an Invasive Species: Challenges and Benefits of Rapidly Expanding Cage Aquaculture in Lake Victoria Sarah Glaser	Hierarchical Bayesian Approach to Standardize Catch Rates of Blue Catfish in Tidal Rivers of Virginia from Multiple Surveys Using Multiple Gears Donald J. Orth	Utilizing Side-Imaging Sonar and GIS to Quantify Impacts of Reservoir Water-Level Fluctuations on Littoral Habitat and Recreational Access Daniel Bennett	Estimating Spatial Heterogeneity and Temporal Stability of Strontium Isotope Signatures for Use in Tracking Fish Movements Lindsy Ciepiela
1:20 PM	Changes in the Immature Growth Rates of a Native Salmonid in Response to an Experimental Caged Aquaculture Operation Patrick J. Kennedy	Electrofishing Catchability of Juvenile Muskellunge in Northern Wisconsin Lakes Janice Kerns	Hydrologic Impacts on a Natural Reproducing Population of Striped Bass: Lake Texoma Case History Matt Mauck	Traditional Considerations for Contemporary Tagging Studies: Factors Influencing Acoustic Telemetry Recaptures and Recoveries When Estimating Mortality Components Christopher S. Vandergoot
1:40 PM		Coastal Wetland- Nearshore Linkages of Green Bay Sportfishes Christopher Houghton	The Impacts of Drought on White Bass Fisheries in Central Texas Marcos J. De Jesus	Estimating Incision Healing Rate for Surgically Implanted Acoustic Transmitters from Recaptured Walleye Abby Schoonyan
2:00 PM	Coevolutionary Patterns of the VHS- IVb Fish Virus: Still in the Great Lakes and Mutating! Carol A. Stepien	The First Ten Years: A Review of Florida's Freshwater Fisheries Long Term Monitoring Program Kevin Johnson	Marine Aquaculture Production of Unfed Organisms Has Important Opportunities in Future Ecosystem Management Christine M. Moffitt	
2:20 PM	Submerged Aquatic Vegetation and Yellow Perch Population Collapse in Lake St. Pierre (St. Lawrence River): A Thirty-Year Tale of Fish Community Evolution Matteo Giacomazzo	Kentucky Lake: An Opportunity for Long Term Monitoring of Fish Communities Bradley Hartman	Day One Summary	
2:40 PM	Identifying Land-Lake Linkages for Fish Communities in Nearshore Zones of Lake Erie Martin Simonson	An Analysis of Risk Posed By Climate Change to Fisheries Management in the Great Lakes and Canadian Freshwaters Gavin Christie		

Doom	Chouteau A	Chouteau B	Wednesday, August 24	Emning D
Room			Empire A	Empire B
Time	Management Riverscapes	Ecology and Life History I	Angling Participation Symposium— Wednesday	Release and Discard Mortality Estimation— Wednesday
9:40 AM	Welcoming Remarks	The Effects of Salinity on the Oxygen Consumption Rates of Juvenile Lumpfish Jenna Rackovan	Engaging in Recruitment, Retention and Reactivation Endeavors to Increase Participation in Fishing and Boating Frank Peterson	Barotrauma in Lake Erie Yellow Perch and Implications of Bycatch Mortality in Commercial and Recreational Fisheries Carey Knight
10:00 AM	The Riverscape: A Transformative Ecological Paradigm Used to Understand Conservation Outcomes David Schumann	Regional and Temporal Variation in Size at Maturity of Female Blue Crabs (<i>Callinectes</i> sapidus) in Texas Coastal Waters Zachary Olsen		Determining Post-Release Mortality for Atlantic Cod Discarded in the Gulf of Maine Lobster Fishery Brett Sweezey
10:20 AM	Mapping Watershed Integrity for the Conterminous United States Darren Thornbrugh	Evaluating Relative Predator Impacts on Juvenile Blue Crab Mortality in Chesapeake Bay Amanda Bromilow	Trend Since 2000 in Participation of Minorities, Women, and Children Richard Aiken	Estimating Atlantic Cod (Gadus morhua) by-caught and discarded in the Gulf of Maine Lobster Fishery Robert Boenish
10:40 AM	Hierarchy Theory Reveals Multiscale Threats to Arkansas Darter (Etheostoma cragini) in Modified Great Plains Riverscapes Juju Corinne Wellemeyer	Relating Habitat Characteristics and Fish Abundance and Diversity Metrics in Coral and Rocky Reef Ecosystems: Do Consistent Habitat "Drivers" Emerge? Todd Kellison, PhD	Efforts of the Afwa Angling/Boating Participation Committee John Arway	Discarded Fish: From on Deck Vitality Assessment to Survival after Release Marie Morfin
11:00 AM	The Ecological Consequences of Groundwater Depletion in Great Plains Riverscapes Joshuah Perkin	Phase Shifts in Fish Recruitment on the Northeast U.S. Continental Shelf Charles T. Perretti	Angling Recruitment through the Lens of Customer Relationship Management Shari Dann	A Short Review of Fisheries Bycatch and Bycatch Estimation Carl Schilt
11:20 AM	Unequal Ranging Abilities of Prairie Fishes and Consequent Threats to the Stream Ecosystem: Impacts of Lost Connectivity in Lotic Networks Jenna Haag	Larval Red Snapper (<i>Lutjanus campechanus</i>) Body Condition Relative to Environmental Variability and the Deepwater Horizon Oil Spill, 2007–2013 <i>Jesse Filbrun</i>	Understanding the Sportfishing Consumer <i>Lisa Bragg</i>	
11:40 AM		Lunch Bre	ak	

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	Management	Ecology and Life	Angling Participation	Release and Discard
	Riverscapes	History I	Symposium—	Mortality Estimation—
			Wednesday	Wednesday
				General Fisheries II
	Small Stream Fish	Growth, Pelagic Larval	Road to Revenue	Using Ipads to Collect Field
	Ladders for Drop	Duration, and	Peter Vernie	Data
1:00 PM	Culverts	Exploitation of		Jake Allman
	John Lorenzen	Caribbean		
		Amphidromous Gobies		
		Jesse R. Fischer		
	Determining	Genomic Signatures of	A Survey of Iowa's	Reporting Science in a
	Breathing Frequency	Selection in Yellow	Fishing and Hunting	Technological Age: Nfhp's
	of Arapaima Spp. for	Perch Populations with	License Vendors	through a Fish's Eye: The
1:20 PM	Improved Fishery	Variable Growth	Rebecca M. Krogman	Status of Fish Habitats in the
	Management in the	Trajectories and		United States 2015
	Amazon	Mortality Rates		Daniel Wieferich
	Gretchen Stokes	Wesley Larson		
	Managing Structural	American Eel Habitat	Multi-Year Youth	More than Just Another Pretty
	Rehabilitation:	Use and Timing of	Fishing License - Will It	Graph: Better Communicate
	Ecological Monitoring	Freshwater Entrance in	Keep Young Kansans	Science through Improved
1:40 PM	and Factors Driving	the Mississippi River	Engaged in Fishing?	Visual Communication
	Community Structure	Andrew Bueltmann	Doug Nygren	Jacqui Fenner
	in a Restored Stream			
	Carl A. Favata			
	Using Riverscape	Variation in	Can an Email Make	Location, Location:
	Genetics to Inform	Haematological	People Buy a License?	Incorporating Spatial Context
	Conservation of	Constituents of	John Biagi	into Fisheries Research
2:00 PM	Eastern Brook Trout	Chrysichthys		Robert Mapes
	Populations	Nigrodigitatus from		
	Lucas Nathan	Freshwater and		
		Brackishwater		
		Mabel Ipinmoroti		

Room	Empire C	Van Horn B	New York A	New York B
Time	Salmonids I	Fish and Cooling Water Intakes	T-Shaped Fisheries Professionals I	Centrarchids in Streams- Wednesday
9:40 AM	The Cost of Living in a Warming World: Physiological and Behavioral Response of Juvenile Chinook Salmon to Simulated Seasonal Water Temperature David Stormer	Implications of Sampling Period and Frequency on Baseline Ichthyoplankton and Coral Larvae Entrainment Estimates Brian Dresser	Overview of T-Shaped Professionals and Fisheries Conservation Heather Triezenberg	Historical Biogeography and Not Stocking Is the Better Predictor of Black Bass Species Composition in Louisiana Gulf Slope and Lower Mississippi Valley Streams Michael D. Kaller
10:00 AM	The Role of Geomorphic and Hydrologic Processes in Structuring Spawning and Rearing Habitats for Chinook Salmon in a Boreal Stream Ecosystem Jeffrey Falke	Protection of Fish at Freshwater and Saltwater Cooling Water Intake Structures Using Electricity Carl V. Burger	I Did Not Become a Fisheries Biologist to Work with People <i>Michele Baumer</i>	Factors Affecting Recruitment of Smallmouth Bass in Southwestern Wisconsin Streams Justin Haglund
10:20 AM	Estimating the Distribution of Juvenile Chinook Salmon Using Habitat Modeling and Environmental DNA in an Interior Alaska River Basin Allison Matter	Potential Impacts of 316(B) Regulatory Controls and Their Effects on Existing Power Plant Cooling Roman Carter	Building Bridges: The Science of Making Connections Betsy Riley	First Year Survival and Dispersal of Neosho Smallmouth Bass <i>Jim Burroughs</i>
10:40 AM	Evaluation of Growth, Survival, and Recruitment of Chinook Salmon in Southeast Alaska Rivers Cory Graham		Vision, Situational Analysis, and Cultivating Partnerships to Destroy Deficiencies Tom Lang	Effects of Habitat and Spatial Factors on Age-0 Smallmouth Bass in the Ozark Highlands Andrew D. Miller
11:00 AM	Variation in Temperature- Dependent Growth Rates in Juvenile Chinook Salmon: The Need for Population-Specific Bioenergetics Steve Blumenshine		Building Bridges for International Engagement So-Jung Youn	Combining Inference from Otolith Geochemistry and Population Genetics to Determine Scale of Dispersal in a River-Tributary Network Robert Humston

Room	Empire C	Van Horn B	New York A	New York B
Time	Salmonids I	Fish and Cooling	T-Shaped Fisheries	Centrarchids in Streams-
		Water Intakes	Professionals I	Wednesday
	Sea Lion Predation		Communication	Spawning Behavior and Habitat
	Impacts on Salmon		Skills for the	Use of Shoal Bass in Two Non-
	and Steelhead in the		Successful	Navigable Chattahoochee River
11:20 AM	Lower Columbia		Professional	Tributaries
	River, a Growing		Rhett Register	Amy Cottrell
	Problem			
	Douglas Hatch			
11:40 AM		Lun	ch Break	
			The Key Visual	Movement and Habitat Use of
			Communication Skill	Shoal Bass in a Tributary Stream of
			Sets That Every	the Flint River, Georgia
1:00 PM			Fisheries Scientist	Travis Ingram
			Should Have	
			Evan Litwack	37 4 4 771 11
	Assessing the		Complex	Navigating a Thermally
	Influence of		Communication for	Heterogeneous World:
	Imprinting and		Effective Outreach	Smallmouth Bass in Spring-Fed
1:20 PM	Stocking Timing on Atlantic Salmon		and Engagement	Rivers
	Smolt to Adult		Erin Jarvie	Jacob Westhoff
	Return			
	Cory Gardner			
	Behavioral		Administrative Skills	Springs As Thermal Refugia:
	Characterization of		Important for the T-	Movement and Habitat Use
	Downstream-		Shaped Professional	Patterns of Smallmouth Bass in an
1:40 PM	Migrating Atlantic		Kristen Fussell	Ozark River
1.10 1 111	Salmon Smolts in the			Hope Dodd
	Estuary of the			1
	Penobscot River,			
	Maine			
	Alejandro Molina			
	Moctezuma			
	Growth Trends in		Transform Yourself	Movement and Habitat Selection
	Two Sea Winter		into a T-Shaped	Patterns of Smallmouth Bass in an
	Atlantic Salmon in		Professional through	Ozark River
2:00 PM	Maine's Downeast		Use of Field-Based	Michael Siepker
	Rivers over 50 Years		Academic Research	
	Lisa Izzo		Projects	
			Jay Beugly	

Room	Empire C	Van Horn B	New York A	New York B
Time	Salmonids I	Fish and Cooling Water Intakes	T-Shaped Fisheries Professionals I	Centrarchids in Streams- Wednesday
		water intakes		·
	Simulated		Investing in	Evaluation of Fish Passage at the
	Demographic and		Extension Workforce	Yorkville Dam Bypass Channel
	Evolutionary Impacts		Preparation,	Demonstrates Smallmouth Bass
	of Size-Selective		Development and	Home Range Fidelity
2:20 PM	Passage at Dams on		Support for Fisheries	Stephen Pescitelli
	Atlantic Salmon		Extension	
	Body Size		Professionals through	
	George Maynard		Multiple Dimensions	
			Samuel Chan	
			Preparing the Next	
			Generation of	
2:40 PM			Fisheries	
			Professionals for	
			Career Success	
			Steve L. McMullin	

Schedule of Oral Presentations—Thursday, August 25

Room	Atlanta	f Oral Presentations—If Chicago A	Chicago B	Chicago C
Room	Fish Conservation	Pallid Sturgeon	Drought Impacts to	Theory and Application
Time	rish Conscivation	Population Dynamics	Fisheries II	of Behavioral Guidance
Time		and Stressors	1 isheries 11	Technologies
	D 14' A 4		D T 147 1	_
	Population Assessment of the Scott Riffle Beetle,	Assessment of Age-0	Day Two Welcome	Introductory Remarks
0.00 AM	a Kansas Endemic	Sturgeon Catch and Habitat Use from Five		Peter W. Sorensen
8:00 AM	Species	Reaches in the Lower		
	Jordan Hofmeier	Missouri River		
	Jordan IIojmeter	Nathan Gosch		
	Current Status and	Effect of Shallow-Water	From Pristine to Severely	Behavioral Guidance:
	Distribution of the	Habitat Quantity on	Degraded; Spatial	The Promise and
	Strawberry Darter in the	Young-of-Year Sturgeon	Assessment of Texas	Challenge
8:20 AM	Tributaries and	Prey Use and Condition	Tidal Streams	Peter W. Sorensen
	Mainstem of the	Along a Longitudinal	James Tolan	
	Strawberry River	Gradient		
	Drainage	Anthony Civiello		
	Kyler Hecke	- 0-		
	Search for Blackbanded	Drift Initiation and	Evaluating Freshwater	Design Concepts and
	Sunfish Populations in Florida	Dynamics of	Inflow Regulations in the San Francisco Bay	Developments in Behavioural Fish
0.40.434	Travis Tuten	Scaphirhynchus Sturgeon in the Lower Missouri	Estuary	Guidance
8:40 AM	Travis Tuten	River	Christina Swanson	Andy Turnpenny
		Kimberly A. Chojnacki	On isina ovanson	Tinay Turnpenny
	Spatially Distinct Life	,	The Role of Context	Introduction to Sound
	Stages Leave a Tropical	Interception Habitat for Pallid Sturgeon in the	Dependency in	and Guided Response of
9:00 AM	Fish Species More	Upper Channelized	Understanding the Effects	Bigheaded Carp to
7.00 IIII	Susceptible to Climate	Missouri River	of Low Flow Events on	Acoustic Deterrents
	Change	Jerrod Hall	Fish	Daniel Zielinski
	Eric Schneider	·	Annika Walters	
	Food Web Structure and			
	Contaminant			
	Trophodynamics of a			
9:20 AM	Freshwater Riverine		Break	
	System: Implications for			
	an Imperiled Sucker			
	Species Tifferm N. Bouloud			
	Tiffany N. Penland	Energatic Costs	Despending to Law Flows	Bigheaded Carp Behavior
		Energetic Costs Associated with Habitat	Responding to Low Flows on the Dungeness River –	and Bioacoustics
		Use during Early Life	an Experience from the	Brooke J. Vetter
9:40 AM	Break	Influence Growth Rate	Washington Drought	2.00No j. Tomoi
). IU /IIII	2.2 404	Potential of	2015 Playbook	
		Scaphirhynchus	Joshua Rogala	
		Sturgeon	Č	
		Anthony P. Porreca		

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Fish Conservation	Pallid Sturgeon Population Dynamics and Stressors	Drought Impacts to Fisheries II	Theory and Application of Behavioral Guidance Technologies
10:00 AM	Utilizing Fishermen's Ecological Knowledge to Map Atlantic Cod Spawning Grounds on Georges Bank and Nantucket Shoals Douglas Zemeckis	Physical Factors Affecting Drift of Pallid Sturgeon Free Embryos in the Missouri River Basin Susannah O. Erwin	Drought Increases Trout Recruitment at the Expense of Adult Size in Tailwaters Downriver of Dams in Western North America Kimberly Dibble	Potential Implications of Acoustic Stimuli As a Non-Physical Barrier to Silver (Hypophthalmichthys molitrix) and Bighead Carp (H. noblis) Kelsie A. Murchy
10:20 AM	Pollution of Nigerian Aquatic Ecosystems By Industrial Effluents: Effects on Fish Productivity Olufemi Olabode Joseph	River Analyzer: A New Three-Dimensional Hydro-Acoustic River Mapping Tool to Estimate Drift Rates for Larval Pallid Sturgeon over Distances of 100's of Kilometers Brian Marotz	How to Survive a Drought: Modeling Shows Evidence of the Importance of Foraging Plasticity to Juvenile Salmon Taylor Spaulding	An Outboard Boat Motor Sound Deters Carps in a Lock Chamber As Well As in a Laboratory Tank Clark Dennis III
10:40 AM	Saving a Species from the Edge of Extinction <i>Corey Lee</i>	Development and Application of a Spatially Explicit Growth Model for Age-0 Scaphirhynchus Spp. David Deslauriers	Connecting the Apalachicola- Chattahoochee-Flint River Basin - Hydrologically, Biologically and Politically Dan Tonsmeire	The Effectiveness of Carbon Dioxide As a Barrier to Prevent Fish Movement Eric Schneider
11:00 AM	Impact of Conservation-Based, Captive Rearing on the Performance of an Endangered Species, the Atlantic Salmon (Salmo salar) Nathan Wilke	Range-Wide Population Genetics and Hybridization in Pallid and Shovelnose Sturgeon Edward Heist	Protecting Fish during a Drought – Lake Kachess Bull Trout 2015 Joshua Rogala	Electric Dispersal Barriers on the Chicago Sanitary Ship Canal: Comparative Testing of Invasive Carp and Fishes Employed As Surrogates F. Michael Holliman
11:40 AM		Lunch Br		
1:00 PM	Does Disturbance Facilitate Round Goby Invasion? Corey Krabbenhoft	Model Development to Support Pallid Sturgeon Recovery <i>Michael Colvin</i>	Threats to Pelagic- Broadcast Spawning Cyprinids Shannon K. Brewer	Can We Manipulate Reproductive Migrations? Lamprey Search Behavior and Habitat Selection Presents Opportunities for Improved Conservation Trevor Meckley

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Fish Conservation	Pallid Sturgeon Population Dynamics and Stressors	Drought Impacts to Fisheries II	Theory and Application of Behavioral Guidance Technologies
1:20 PM	An Evaluation of Plankton Sampling Methods to Detect Zebra Mussel Veligers in a Newly-Infested Kansas Reservoir Jessica Edmunds	Examination of Pallid Sturgeon Life-History Characteristics throughout the Missouri River Basin <i>Martin Hamel</i>	Texas Drought of Record: Lessons Learned for the Conservation of Broadcast Spawning Cyprinids Aaron Urbanczyk	Special Considerations in Design of Barriers for Invasive Fish Control Andy Turnpenny
1:40 PM		Environmental Life History of Scaphirhynchus Sturgeon in the Lower Missouri and Middle Mississippi Rivers Seth Love	Fragmentation and Drying Ratchet Down Great Plains Stream Fish Diversity Joshuah Perkin	Go, Carp. Go!: Efficacy of Waterguns, Sound, and CO ₂ to Deter Bigheaded Carp <i>Marybeth K. Brey</i>
2:00 PM	A Strategic Conservation Plan for Threatened and Endangered Mussel Species of the Gulf Coast Prairie Region Wesley Daniel, PhD	From Pallid and Shovelnose Sturgeon to Chubs to Invertebrates: A Lower Missouri River Community Model for Assessing Predation, Competition, and Resource Effects on Population Dynamics Mark L. Wildhaber	Fish Assemblages and Declining Water Quantity and Quality in the Rio Grande Basin, West Texas: How Low Can You Go? Christopher Taylor	Monitoring Common Carp Movement in Response to Acoustic and Strobe-Light Barriers Paul Bzonek
2:20 PM	Hotspots of Freshwater Mussel Biodiversity in East Texas Ashley Walters	Lower Missouri River Pallid and Shovelnose Sturgeon Population Viability Models with Hierarchical Partitioned Uncertainty Nicholas S. Green	Effects of Extreme Drought on Fishes of a Great Plains River Gene Wilde	Modifying Flows at Mississippi River Dams to Stop Bigheaded Carp Passage Daniel Zielinski
2:40 PM	Towards a Strategic and Spatially-Explicit Mussel Conservation Assessment and Monitoring Program in Missouri – Our Vision Amanda Rosenberger	Pallid Sturgeon Spawning Habitat on the Lower Missouri and Yellowstone Rivers Caroline M. Elliott	Fish Communities of Environmentally Different Streams: Response to Drought, Tempo of Recovery, and "Loose Equilibrium" William Matthews	Improving Downstream Passage for Multiple Species - the Importance of Understanding Fish Behaviour Andrew S. Vowles

Room	Atlanta	Chicago A	Chicago B	Chicago C
Time	Fish Conservation	Pallid Sturgeon Population Dynamics and Stressors	Drought Impacts to Fisheries II	Theory and Application of Behavioral Guidance Technologies
3:20 PM	Investigating Sources of Bias in Freshwater Mussel Sampling Methods in the Meramec River Basin, Missouri Matthew Schrum	Spawning, Early Life Stage Dispersal, and Recruitment Deficiency of Wild Pallid Sturgeon in the Fragmented Upper Missouri River Basin Patrick J. Braaten	Discussion	Recent European Electric Fish Barrier Feasibility Studies and Installations Martin O'Farrell
3:40 PM	Derivation of Hydrogeomorphic Variables for Fundamental Niche Modeling of Unionid Mussel Concentrations in Missouri Ozark Rivers Garth Lindner	Evidence for Altered and Insufficient Spawning As a Causative Factor in the Decline of Pallid Sturgeon and As an Impediment to Recovery Aaron J. DeLonay		Panel Discussion
4:00 PM	Is Morphology Still Relevant in Mollusk Conservation? Russell Minton	Survival, Growth and Movement of Hatchery- Reared Pallid Sturgeon Post-Stocking Kirk Steffensen		
4:20 PM	Do Propagation and Culture Methods for Native Freshwater Mussels Influence Their Chemical Sensitivity? Anakela Popp	Emigration of Hatchery-Reared Pallid Sturgeon through Gavins Point Dam Landon Pierce		
4:40 PM	Modeling Fluvial Habitat Suitability for 11 of Michigan's Listed Unionids Arthur R. Cooper	Influences of Environmental Conditions on Distance Moved By Shovelnose Sturgeon in the Lower Mississippi River Dylan A. Hann		

Schedule of Oral Presentations—Thursday, August 25

Doces		Chautaan P		Empire D
Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	Protecting Fish at Cooling Water Intakes	Carp Ecology and Management	Angling Participation Symposium III	Methods for Managing Large River Fisheries
8:00 AM	Collaborative 316b Study of Seven Power Plants on the Ohio River, Year 1 Results Jason Rager	Prussian Carp (<i>Carassius gibelio</i>), the New 'Asian Carp' in North America <i>Mark Poesch</i>	Keep Them Fishing: Angler Churn Rates, Lifestyles and Other Insights Needed to Effectively Maintain Sportfishing Lisa Bragg	Principles & Processes for Assessing Fish Assemblage Condition in Boatable Rivers of Five Continents Robert Hughes
8:20 AM	Inside out: A Comparison of Entrainment Sampling in-Plant Vs Offshore Eric Miller	Dramatic Collapse of Common Carp (Cyprinus carpio) in the Upper Mississippi River System Daniel Gibson- Reinemer	Determining How Differences Between Avid and Lapsed Anglers Can Improve License Sales and Angler Satisfaction Brett T. van Poorten	Fishery Agencies, Management, and Conservation in the Yangtze River Basin Yushun Chen
8:40 AM	Internet-Based Larval Fish and Egg Taxonomic Key Resource for Freshwater and Marine Environments Christopher Cieciek	Juvenile Asian Carp Predation on the La Grange Reach, Illinois River Eli Lampo	Combating the Disconnect Between Acutal and Paid Participation: A Model to Predict License Purchase Based on Angler Behavior and Characteristics Susan Steffen	Micra: A Structure for Cooperative Fishery Resources Management in the Mississippi River Basin Greg Conover
9:00 AM	Molecular Method Applications to Support Entrainment Study Evaluations Douglas Bradley	Bighead Carp Effects on the Growth and Abundance of Larval Bluegill Cameron Fletcher	Factors Affecting Fishing License Purchase Patterns and Angler Retention Strategies in Iowa Jeff Kopaska	Six Fishes Native to the Yangtze River: An Update on Their Status in the Mississippi River Basin Duane Chapman
9:20 AM		Brea		
9:40 AM	Comparison of Survival of Fish Eggs and Larvae Via Collection and Transfer By Fine Mesh Traveling Screens Vs. through-Plant Entrainment Survival <i>Gary Thorn</i>	Linking Nutrient Dynamics to Assess the Impact of Invasive Asian Carp on Native Communities Elizabeth Tristano	The Role of Angler Education Programs in Angler Participation Doug Darr	Anthropogenic Stressors and Climate Change in the Yangtze River Basin <i>Yushun Chen</i>
10:00 AM	Multi-Model Inference for Estimating Entrainment Survival John Young	Direct and Indirect Effects of Size-Selective Predation By Bighead Carp on Zooplankton Communities Scott F. Collins	Discover Nature – Fishing: A Statewide Angler Education Program in Missouri Andrew Branson	Conducting Biological Assessments of a Large River: The Ohio River (Mississippi River Basin) Jeff Thomas

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	Protecting Fish at Cooling Water Intakes	Carp Ecology and Management	Angling Participation Symposium III	Methods for Managing Large River Fisheries
10:00 AM	Multi-Model Inference for Estimating Entrainment Survival John Young	Direct and Indirect Effects of Size-Selective Predation By Bighead Carp on Zooplankton Communities Scott F. Collins	Discover Nature – Fishing: A Statewide Angler Education Program in Missouri Andrew Branson	Conducting Biological Assessments of a Large River: The Ohio River (Mississippi River Basin) Jeff Thomas
10:20 AM	316(b) Applications: Thoughts from a Regulator on Study Plans Sean Ramach	Variation in the Density and Population Demographics of Asian Carp throughout the Illinois River David P. Coulter	Fishing's Future: Reconnecting Families & Setting a Foundation for the Future of Fishing Michael Scherer	Fish Assemblage Responses to Different Secondary Channel Designs in the Lower Mississippi River, USA: A Template for River Restoration Michael Eggleton
10:40 AM	Comparison Between the Final 2014 EPA Phase II Rule and New York State Department of Environmental Conservation Commissioner's Policy – 52 in Implementing the National Pollutant Discharge Elimination System Colleen Kimble	Temporal and River Discharge Effects on Silver Carp Abundance and Size Structure in the Wabash River Daniel Roth	Incorporating Fishing into the PK-12 Curriculum: Aligning Programs to the Georgia Performance Standards (GPS) and Georgia Early Learning Development Standards (GELDS) Marion Baker	The Ohio River Ecological Research Program40 Years and Counting Greg Seegert
11:00 AM	Endangered Species Act Case Studies Related to Clean Water Act 316(b) Harriet Nash	Identification of Bighead Carp and Silver Carp Natal Environments and Detection of Lock and Dam 19 Passage in the Upper Mississippi River: Insights from Otolith Chemistry Gregory Whitledge	What High School Fishing Can Bring to Your State Mark Gintert	Integrated Ecosystem Health Assessment of the Niyang River after Human- Induced Disturbance in Tibetan Plateau: A Multicompartment Approach Haiping Liu
11:20 AM	Discussion 1	0 / 0	"Creating New Anglers" through Future Angler Foundation Partnerships Robert "Nick" Schmal	The United Fishing Method: History, Development, and Applications in China Zhongjie Li
11:40 AM		Lunch F	reak	

Schedule of Oral Presentations—Thursday, August 25

Th.	Schedule of Oral Presentations—Thursday, August 25					
Room	Chouteau A	Chouteau B	Empire A	Empire B		
Time	Protecting Fish at Cooling Water Intakes	Carp Ecology and Management	Angling Participation Symposium III	Methods for Managing Large River Fisheries		
1:00 PM	Coordination for Implementation of the 316(b) Rule for Two Utilities on the Missouri River Dan Bigbee	Assessing the Influence of Trophic State on Littoral Zone Fish Communities, Dissolved Oxygen Regimes, and Habitat Composition in Florida Lakes Chris Anderson	Influencing Anglers: A Look at Florida's Trophycatch and Big Catch Angler Recognition Programs Jessica Quintana	Application of the Unified Fishing Method in Removing Asian Carps in the United States: Field Success and Challenges <i>Kevin Irons</i>		
1:20 PM	A Peer Reviewer's Observations on Entrainment Characterization Study Plans Chuck Coutant	What Factors Structure Lake Sturgeon Spawning Aggregations in a Great Lakes Connecting Channel? Greg Jacobs	How Far Is It? Understanding Urban Angler's Constraints to Fishing Participation in the Southeast Ramon Martin	Novel Trawling Techniques Capture Juvenile Silver Carp in the Illinois River Emily Pherigo		
1:40 PM	Non-Use Benefits: 800 Lb. Gorilla or Gentle Pussy Cat? William Dey	Are Missouri River Macrhybopsis Spp. Pelagophils, Litho- Pelagophils, or Lithophils? Janice L. Albers	Creating New Anglers in Texas' Major Cities and Strategies to Retain Them Dave Terre	A Modified Purse Seine to Remove Invasive Carp from Midwestern Waterways Kevin Drews		
2:00 PM	Facilitating Clean Water Act 316(b) Rule- Required Peer Review of 122.21(r) Reports Radhika de Silva	Bowfin Acoustic Telemetry: Insight into the Ecology of a Living Fossil Jonathan D Midwood	Community Fisheries in Eastern South Dakota: Angler Demographics, Use, and Factors Influencing Satisfaction Michael J. Greiner	Paupier: A Modified Skimmer Trawl Developed to Target Asian Carp in Midwestern Waters Wyatt Doyle		
2:20 PM	Laboratory Traveling Water Screen Optimization Evaluations Daniel Giza	Food and Feeding Habits of Tilapia zilli in Ogun River Festus Adeosun	Missouri's Community Assistance Program: An Evolving Strategic Partnership Program Laura Ruman	Using Otolith Analysis and Microchemistry to Estimate Growth and Identify Recruitment Sources of Ohio River Sauger Alex Loubere		
2:40 PM	Application of a Fish Barrier to Reduce Fish Entrainment at Lovewell Reservoir, Kansas Andrew McCusker	Effects of Wastewater Treatment Effluent on Fish Communities in an Illinois River Tributary Bethany Hoster	Twenty Years of Angler Participation in Virginia's Game Fish Tagging Program Susanna Musick	Genomics: A Powerful Tool in the Management and Conservation of Fisheries Resources Guoqing Lu		
3:00 PM		Brea	k			

Room	Chouteau A	Chouteau B	Empire A	Empire B
Time	Protecting Fish at Cooling Water Intakes	Carp Ecology and Management	Angling Participation Symposium III	Methods for Managing Large River Fisheries
3:20 PM	Technical Developments in Fish Exclusion & Debris Barriers Andy Peters	Comparing Contributions of Mussels and Fish As Biogeochemical Hotspots Garrett W. Hopper	Assessment and Monitoring of Newly Established Public River Access and Conservation Areas Jessica East	Feeding Plasticity of Silver Carp and Bighead Carp in Chinese Lakes Based on Next Generation Sequencing Qigen Liu
3:40 PM	Utilizing Skimmer or Curtain Walls to Reduce Entrainment at Cooling Water Intake Structures Jonathan Black	Larval Fish Assemblages Differ Spatially and Temporally on a Large River Jordan Pesik	The Recreational Angler As Ecosystem Steward Adam Landon	Comparative Gut Metagenomics Among Bighead Carp, Silver Carp and Their Hybrids Lifeng Zhu
4:00 PM	Discussion 2	Streamflow Complexity Associations with the Northern Leatherside Chub at Multiple Spatial Scales Daniel Dauwalter	The Role of Private Waters in Recruiting Anglers Leslie Burger	
4:20 PM		Phenology, Growth, and Early Life History of Six Sympatric Suckers <i>Tomas J. Ivasauskas</i>	Acquiring and Retaining Active Participation within a Constituent- Based Tagging Program Adrienne Katz	

Schedule of Oral Presentations—Thursday, August 25

Room	Empire C	Van Horn B	New York A	New York B
Time	Salmonids II	River Restoration	Modeling and Statistics	Centrarchids in Streams III
			(Contributed Papers)	
	Genetic Assessment	Multi-Scale Approach to	Density Impacts on	Smallmouth Bass
	and Effects of Stocking	Hydrological	Biological Reference Points	Population Characteristics
	on Wild Brook Trout	Classification Provides	and Management	and Movements in the
8:00 AM	Populations in South	Insight to Flow Structure	Amy M. Schueller	Menominee River,
	Carolina	in Altered River System		Wisconsin-Michigan
	Kasey Pregler	Jonathan Spurgeon		Joshua Schulze
	Survival of Brook and	Migratory Fish	Using Length-Frequency	Estimating Black Bass
	Brown Trout through	Restoration in the	Analysis to Identify Spatial	Harvest Utilizing a Tag
	the Spawning Season in	Susquehanna River	and Temporal Variation in	Reward Study on Three
8:20 AM	a North Central	Sheila Eyler	Cohort Occurrences	Indiana River: West Fork
	Pennsylvania Watershed		Skyler Hedden	White River, St. Joseph River, and Eel River
	John A. Sweka			Sandra Clark-Kolaks
	Efficacy of	Floodplain Deforestation	Using Capture-Recapture	Harvest Evaluation of
	Environmental DNA to	Effects on Fisheries	Models to Estimate Angler	Smallmouth Bass from
	Detect and Quantify	Yields	Abundance in Southern	Selected Ozark Streams in
	Brook Trout Salvelinus	Leandro Castello	Lake Michigan	Missouri
8:40 AM	Fontinalis, Populations	Zemm o Gwereno	Dominique Turney	Chris Williamson
0.10 /11/1	in Streams of the			
	Adirondack			
	Mountains, New York			
	Barry P. Baldigo			
	The Influence of	Analysis of Individual	Analysis of Lake Huron	The Evolution of
	Thermal Variability on	Fish Growth Reveals	Recreational Fisheries Data	Smallmouth Bass
9:00 AM	Brook Trout	Variable Efficacy of in-	Using Models Dealing with	Management in Missouri
	Distribution in Boreal	Stream Habitat	Excessive Zeros	Ozark Streams
	Streams	Restoration	Zhenming Su	Craig Fuller
2.25	Robert W. Mackereth	Karl M. Polivka		
9:20 AM	[m 1.e.	Brea		P 4 4 PC - C
	Translating	Larval Fish Communities	Use of Two Alternative	Forecasting the Effects of
	Disturbance into	Upstream and	Methods to Validate	Angler Harvest and Climate
9:40 AM	Biological Effects: A Case Study in	Downstream of Spawning	Access Based Creel Probabilities	Change on Smallmouth Bass Abundance at the Southern
9:40 AM	Appalachian	Habitat Improvements in the St. Clair-Detroit River	Tanner Stevens	Edge of Their Range
	Headwater Brook	System	Tunner Sievens	Christopher Middaugh
	Trout Populations	Robin L. DeBruyne		Om istopher Muuuugh
	Ross Andrew	Room L. Debi ayne		
	Behavior and Survival	A Natural Channel Vs.	Can We Develop Generic	Evaluation of a 14-in
	of Stocked Trout in	Natural Channel Design:	BIA Models of Fish	Minimum Length Limit for
10:00 AM	Southern Appalachian	A Case Study in the San	Composition?	Smallmouth Bass
	Mountain Streams	Antonio River, Bexar	Kyle Hartman	Micropterus Dolomieu in the
	Thomas J. Kwak	County, Texas		Eleven Point River
		Shaun Donovan		Brett Timmons

Room	Empire C	Van Horn B	New York A	New York B
Time	Salmonids II	River Restoration	Modeling and Statistics (Contributed Papers)	Centrarchids in Streams III
10:20 AM	Brook Trout Passage Performance through Culverts: The Importance of Motivation Elsa Goerig	A Biological Assessment and Response to a Missouri River Top- Widening Project Thad Huenemann	Quantitative Video Analysis of Fish and Squid Behavior at the Mouth of a Drop-Chain Trawl Shannon Bayse	Smallmouth Bass Fishing in Missouri: Results from the 2011 Angler Survey Craig Fuller
10:40 AM	What Drives the Abundance of Littoral and Pelagic Brook Charr in Canadian Shield Lakes? Vincent Rainville	Fish Assemblages from Chevron Dikes in the Middle Mississippi River John West	A Statistical Approach to Estimating Multinomial Effective Sample Size for Stock Assessment Models Samuel B. Truesdell	Resample, Recapture, and Re-Analyze: Using the 3 R's to Resurrect the Scale Method of Estimating Fish Age Colt T. Holley
11:00 AM	Development and Simulated Use of a YY Male Brook Trout Broodstock for Potential Eradication of Undesired Brook Trout Populations Daniel J. Schill		Evaluation of Mean RANK Shift for Discerning Changes in Reservoir FISH Assemblages Don Dennerline	Using Capture Probability of Smallmouth Bass in Missouri's Ozark Rivers to Provide a Statewide Perspective of Smallmouth Bass Populations Andrew Turner
11:20 AM	Evaluating the Post- Stocking Survival and Reproductive Success of YY Male Brook Trout Patrick Kennedy		Feasibility of Electrosedation As an Alternative to Chemical Sedation of Lake Trout, Salvelinus Namaycush Matthew Faust	
11:40 AM		Lunch Br	eak	
1:00 PM	Spatiotemporal Patterns in Trophic Niche Overlap Among Five Lake Michigan Salmonine Species: Inference from Stable Isotope Ratios Matthew S. Kornis	Acute Stress Response in Rainbow Trout (Oncorhynchus mykiss) Fed Bioprocessed Soybean Diets Timothy Bruce	Stable Isotope Analysis Versus Troph: A Comparison of Methods for Estimating Fish Trophic Positions in a Subtropical Estuarine System Felipe Amezcua Jr.	Identification of Forage Fish in Estuarine Systems Using Qualitative and Quantitative Criteria Samantha M. Binion-Rock
1:20 PM	Highly Variable and Elevated Straying Rates of Steelhead Trout from Lake Erie Tributaries Richard R. Budnik	Characterization of Growth Physiology through Gene Expression in Rainbow Trout (Oncorhynchus mykiss) Fed Bioprocessed Soy- Based Diets Timothy Bruce	Investigating the Utility and Relative Accuracy of Nonlethal Ageing Structures to Age Two Nonnative (Brook Trout and Brown Trout) and One Native (Rio Grande Cutthroat Trout) Trout Species Collected in Carson National Forest, New Mexico Phillip Parsley	Dynamics of Eastern Oysters in the Choptank River Complex, Maryland Matt Damiano

Room	Empire C	Van Horn B	New York A	New York B
Time	Salmonids II	River Restoration	Modeling and Statistics	Centrarchids in Streams III
			(Contributed Papers)	
1:40 PM	Genetic Heritage of Naturally Produced Lake Trout in Lake Michigan Keith Turnquist	Effect of Point Source Feeders on Cultured Sockeye Salmon Social Behavior Desmond J. Maynard	Accuracy and Precision of Longnose and Spotted Gar Age Estimates from Otoliths, Pectoral Fin Rays, and Branchiostegal Rays David Buckmeier	Population Age Frequencies and Evidence of Multidecadal Recruitment in the Ocean Quahog Sara M. Pace
2:00 PM	Relatedness on the Landscape: Do Juvenile Steelhead Trout Establish Territories Near Their Siblings? Marissa Jones	Effects of Supplemental Feeding on Diel Patterns of Gut Fullness, Diet Composition, and Digestive Enzyme Activities of Juvenile Channel Catfish Jesse Filbrun		Development of a Population Wide Index of Spawning Stock Biomass for Atlantic Mackerel Lauren E. Carter
2:20 PM	Lake Trout Spawning Habitat Selection in the Drummond Island Refuge: Paradigm or Paradox? Steven A. Farha	Calcein Marking: A Non- Lethal Batch Marking Option for Stocking Evaluation Greyson Farris		Assessing Southern Flounder Populations in the Northern Gulf of Mexico Adrian Stanfill
2:40 PM	Reproductive Stage Impacts Interrenal Tissue Function in Rainbow Trout, Oncorhynchus mykiss Scott Lankford	Break		Estimating Length-at-Age and Length-at-Maturity for the North-Central Gulf of Mexico Southern Flounder Stock Morgan M. Corey
3:00 PM	Break	Progress and Early Success of Large-Scale Conservation Aquaculture Production to Restore Kootenai River Burbot Shawn Young	Ві	eak
			T-Shaped Fisheries Professionals II	
3:20 PM	The Fate of Stocked Trout in Arizona Streams William Stewart	Biosecurity Design Elements in Public Fish Hatcheries Matt Cochran	Being Everything for Everyone: Experiences of a Student Striving to Achieve Disciplinary Depth and Breadth Joel Nohner	Predator-Prey Relationships and the Continued Decline of Atlantic Cod in the Southern Gulf of St. Lawrence Rachel Neuenhoff
3:40 PM	Impacts of Northern Pike Predation on a Stocked Rainbow Trout Fishery Steven R. Chipps	The Use of Probiotics for the Freshwater Fishes of India Masilamani Selvam	Mentoring and Professional Development in Fisheries William W. Taylor	Atlantic Menhaden Seasonal Migration, Survival, and Exploitation Rates during 1966–1969 Emily M. Liljestrand

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Room	Empire C	Van Horn B	New York A	New York B
Time	Salmonids II	River Restoration	T-Shaped Fisheries	Centrarchids in Streams III
			Professionals II	
		Beyond the Bashing:	NOAA Student	Development of a Bayesian
		Building Constraints in	Opportunities in Fisheries	Mixed-Stock Model for
		Hatchery-Based	Science and Management	Determining the Origin of
4:00 PM		Recreational Fisheries,	Laura Oremland	Atlantic Bluefin Tuna
		Considering Fish Health		Hui Liu
		and Genetic Impact		
		Nathan Wilke		
		Humane Fish Slaughter:	Advancing Professional	Exposure to Oil-Associated
		A comparison of Fish	Development for Fisheries	Metals, As Documented in
		Welfare Standards in the	Stock Assessment	Otoliths, May be
4:20 PM		United States and the	Scientists	Detrimental to the Health of
		United Kingdom. What is	Sarah Stein	Gulf of Mexico Fishes
		the next step?		Jennifer Granneman
		Phong L. Nguyen		
			The Development and	
4:40 PM			Implementation of a	
			Professional Master's	
			Degree for Natural	
			Resource Agency	
			Employees	
			Chris Luecke	

Poster List

For space-saving reasons, only the title and authors are shown. Abstracts are available on the mobile app.

Aquaculture

- P-1 Digestibility and Palatability of Processed Forms of Carinata and Camelina Seedmeals *Tom Kasiga, South Dakota State University*
- P-2 Glucosinolate Tolerance Limit in Hybrid Striped Bass

Tom Kasiga, South Dakota State University

P-3 Improving Efficiency in Saugeye Production Using Cryopreserved Milt

Bryan Blawut¹, Matt Krcmarik¹, Barbara Wolfe², Marco da Silva¹, Richard D. Zweifel³, Doug Sweet⁴, and R. Scott Hale⁵; (1)Ohio State University, (2)Morris Animal Foundation, (3)Inland Fisheries Research Unit; Division of Wildlife, (4)Ohio Division of Wildlife, (5)Fisheries Management Section, Division of Wildlife

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Karma Wangchuk¹, D K Gurung¹, Jigme Tsuendrup², Tshering Dorji¹, Julie Claussen³, Dechen Dorji², Namgay Dorji¹, Singye Tshering¹, Tshewang Tashi¹, Michael Philipp⁴ and David P. Philipp³; (1)Bhutan Ministry of Agriculture and Forests, (2)World Wildlife Fund—Bhutan, (3)Fisheries Conservation Foundation, (4)World Wildlife Fund—U.S.

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Jeff Williams¹, Hope Dodd¹, David Peitz¹, J. Tyler Cribbs¹, Katie Bertrand², and Brian Graeb²; (1)National Park Service, (2)South Dakota State University

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Jonathan Kohr, WA Dept. of Fish and Wildlife

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Erinn Ipsen¹, David Deslauriers², and Eva Enders¹; (1)Department of Fisheries and Oceans Canada, (2)University of Manitoba

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Daniel Garrett¹, Kevin Thomas¹, Samantha Carey¹, Brent Lehman², John R. Foster³, Mark Cornwell³, Scott Wells⁴, and Dan Stich⁵; (1)SUNY Cobleskill, (2)State University of New York, Cobleskill, (3)State University of New York at Cobleskill, (4)New York State Department of Environmental Conservation, (5)State University of New York College at Oneonta

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W. David McElroy^{1,2} and Emilee Towle^{1,2}, (1)Northeast Fisheries Science Center, NMFS, NOAA,

(2)Integrated Statistics Inc.

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P-70 DNA Fragmentation in Blue Mussel Gametes: Aquaculture and Fisheries Implications Michael Kjelland^{1,2}, Carmen López-Fernández³, Cuca Perez-García³, and Jaime Gosálvez³, (1)Conservation, Genetics & Biotech, LLC, (2)U.S. Army Engineer Research and Development Center, Environmental Laboratory, (3)Universidad Autónoma de Madrid

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P-79 Alternating Habitat Use By Juvenile Flatfish Based on Thermal Regime in the Eastern Bering Sea Cynthia Yeung, Alaska Fisheries Science Center, National Marine Fisheries Service, NOAA; Dan Cooper, NOAA Alaska Fisheries Science Center; and Mei-Sun Yang, Alaska Fisheries Science Center/ NMFS/NOAA P-80 Conducting a Pilot Trap Survey on New Jersey Artificial Reefs for Black Sea Bass, Tautog, and Lobster

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P-87 Growth Rate Analysis of Coastal Wetland and Near Shore Great Lakes Fish Using Otolith Dating Jeremiah Shrovnal¹, P. Forsythe¹, Christopher Houghton¹, and Collin Moratz², (1)University of Wisconsin-Green Bay, (2)University of Wisconsin-Green Bay

P-88 Determining Recruitment Sources and Movement Patterns of Sauger Sander Canadensis in the Kaskaskia River, Illinois Using Otolith Microchemistry Kasey Yallaly and Gregory W. Whitledge, Southern Illinois University

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Electrical Fields Where Blue Catfish (*Ictalurus* furcatus) and Flathead Catfish (*Pylodictis olivaris*) Surface When Electrofishing Zachary Ford¹, Andrew Turner¹, Jan Dean², and Josh Roberts³, (1)Missouri Department of Conservation, (2)Dean Electrofishing, LLC, (3)Missouri State University

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P-95 Detection Efficiency of Acoustic Transmitters at Priority Locations within Lake Sharpe Michael J. Greiner¹, Robert Hanten², Hilary Meyer², and Mark Fincel², (1)South Dakota Department of Game, Fish, and Parks, (2)South Dakota Game, Fish and Parks

P-96 Quantification of Daily Otolith Increments in Young of Year Asian Carp

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Sarah Molinaro¹, Sarah Huck¹, Solomon David², and Jeffrey A. Stein¹, (1)University of Illinois, (2)John G. Shedd Aquarium

P-102 Smallmouth Bass Population Dynamics in an Urban Iowa River

Michael J. Weber, Iowa State University

P-103 Comparison of Sauger Population Demographics Among Five Ohio River Navigation Pools

Neil Rude¹, Alex Loubere², and Gregory Whitledge¹, (1)Southern Illinois University, Center for Fisheries, Aquaculture, and Aquatic Sciences, (2)Southern Illinois University

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Janice L. Albers, Mark L. Wildhaber, and Nicholas S. Green, U.S. Geological Survey

P-105 Blue Catfish Population Characteristics and Standard Sampling Methods in Tennessee Reservoirs

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P-106 Density-Dependent Overwinter Growth and Survival of Juvenile Bigheaded Carp Justin Seibert, David P. Coulter, Elizabeth Tristano, Alison Coulter and James E. Garvey, Southern Illinois University

P-107 Using Bayesian Method and Deviance Information Criterion to Verify Uncommonly Used Fish Growth Functions

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Best Student Poster Presentations

P-7 Using Maxent to Generate a Fundamental Niche Model for Diverse Mussel Assemblages within the Northeastern Ozark Region of Missouri Kayla Key¹, Garth Lindner¹, Kristen Bouska², Amanda Rosenberger³ and Stephen McMurray⁴, (1) Missouri Cooperative Fish & Wildlife Research Unit, University of Missouri, (2)USGS - Upper Midwest Environmental Science Center, (3)U.S. Geological Survey Missouri Cooperative Fish and Wildlife Research Unit, University of Missouri, (4)Missouri Department of Conservation

P-8 Development of a Fish-Based Index of Biotic Integrity for Lakes in Eastern South Dakota Daniel Nelson¹, Melissa Wuellner¹, Nels Troelstrup Jr.¹, and Brian Blackwell², (1)South Dakota State University, (2)South Dakota Game, Fish, and Parks

P-23 Silver Carp (*Hypophthalmichthys molitrix*) Recruitment Sources in the Middle Mississippi River

Michael Wolf, Southeast Missouri State University; Kevin Haupt, Missouri Department of Conservation and Southeast Missouri State University; Quinton Phelps, Missouri Department of Conservation and Gregory Whitledge, Southern Illinois University, Center for Fisheries, Aquaculture, and Aquatic Sciences

P-33 Habitat Use of Juvenile Burbot and Patterns in Fish Assemblage Structure in a Tributary of the Kootenai River

Zachary S. Beard¹, Michael C. Quist², Ryan S. Hardy³ and Tyler J. Ross³, (1)Idaho Cooperative Fish and Wildlife Research Unit, (2)U.S. Geological Survey, Idaho Cooperative Fish and Wildlife Research Unit, (3)Idaho Department of Fish and Game

P-34 Seasonal Movements of Paddlefish (*Polyodon spathula*) in Harry S. Truman Reservoir, Missouri Christopher Schwinghamer¹, Sara Tripp², and Quinton Phelps², (1)Southeast Missouri State University, (2)Missouri Department of Conservation

P-35 Using Habitat, Climate, and Biotic Interactions to Predict Co-Occurring Smallmouth Bass and Largemouth Bass in the Ozark National Scenic Riverways

Jacob Schwoerer, Missouri Cooperative Fish and Wildlife Research Unit, University of Missouri-Columbia; Hope Dodd, National Park Service; and Craig Paukert, U.S. Geological Survey; University of Missouri; Missouri Cooperative Fish and Wildlife Research Unit

P-53 Developing Non-Lethal Methodology for Testing Thermal Optima and Tolerance in Small Prairie Stream Minnows

Rory Mott, University of Missouri; and Amanda Rosenberger, U.S. Geological Survey Missouri Cooperative Fish and Wildlife Research Unit, University of Missouri

P-72 A Pre-Restoration Assessment of Reef Spawning Habitat in Saginaw Bay Nicholas Kalejs¹, Tomas O. Höök¹, Mitchell Zischke¹, Jayson Beugly², Paris Collingsworth¹, Edward F. Roseman³, Robert Hunter³, and David G. Fielder⁴; (1)Purdue University, (2)Illinois—Indiana Sea Grant and Purdue University, (3)USGS Great Lakes Science Center, (4)Alpena Fishery Research Station

P-73 Condition As an Indicator of Resilience to Hypoxia By Atlantic Croaker in the Northern Gulf of Mexico

Alfonso Cohuo, Benjamin Walther and Matthew Altenritter, Texas A&M University–Corpus Christi

P-74 Seeking the Sun in Deep, Dark Places: Mesopelagic Sightings of Ocean Sunfishes (Molidae) Natasha Phillips, Queen's University Belfast

P-75 Ovarian Development and Maturity of Southern Flounder in the North-Central Gulf of Mexico

Morgan M. Corey¹, Nancy J. Brown-Peterson¹, Robert T. Leaf¹, Samuel D. Clardy², and Mark S. Peterson1; (1)University of Southern Mississippi, (2)Gulf Coast Research Laboratory

P-76 Survival of Red Deepsea Crab *Chaceon Quinquedens* Smith, 1879, Larvae in Cultivation: Effects of Diet and Temperature

Nivette Pérez-Pérez¹, Matthew Poach², Bradley Stevens³, Stacy Smith¹, and Gulnihal Ozbay¹, (1) Delaware State University, (2)NOAA/NMFS/NEFSC Howard Marine Sciences Laboratory, (3)University of Maryland Eastern Shore

P-82 Don't Put a Fish out of Water: Developing Sampling Protocols to Integrate Fish into Wetland Management Decisions

Julia Guyton, University of Missouri; Craig Paukert, U.S. Geological Survey; University of Missouri; Missouri Cooperative Fish and Wildlife Research Unit; Elisabeth Webb, U.S. Geological Survey; University of Missouri: Missouri Cooperative Fish and Wildlife Research Unit; and Frank Nelson, Missouri Department of Conservation

P-83 A Comparison of Tagging Methods for Mountain Sucker

Seth Fopma¹, David Schumann¹, Matthew Wagner², Katie Bertrand¹ and Brian Graeb¹; (1)South Dakota State University, (2)Mississippi Department of Wildlife, Fisheries, and Parks

P-84 Survival of Upper Piedmont Stream Fishes Implanted with a Passive Integrated Transponder Tag

Josh Cary, Morgan Reed, Jessica Holbrook, Thomas Austin, Seog Hyun Kim, Kasey Pregler, and Yoichiro Kanno; Clemson University

P-85 Evaluation of Prepositioned Areal Electrofishing Devices and Fixed Underwater Videography for Characterizing Riverine Fish Assemblages

Philip Branigan, Idaho Cooperative Fish and Wildlife Research Unit; Michael C. Quist, U.S. Geological Survey, Idaho Cooperative Fish and Wildlife Research Unit; Brad Shepard, B.B. Shepard and Associates and Susan Ireland, Kootenai Tribe of Idaho

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