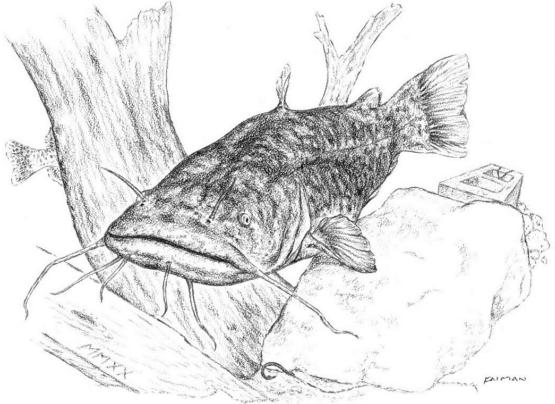
# CATFISH 2020

## Communicating Catfish Science:

## The Third International Symposium



### February 18-21, 2020 Little Rock Marriott Little Rock, Arkansas, USA



Hosted by Southern Division Catfish Management Technical Committee

North Central Division Ictalurid Technical Committee of the American Fisheries Society

and



North Central Division of the American Fisheries Society



## Welcome to Catfish 2020!

The First International Catfish Symposium was held at the end of the 20th Century and represented the first major effort to communicate catfish science to a broad audience of fisheries professionals via the conference itself and the published proceedings, known as Catfish 2000. The decade that followed was one of rapid development for management techniques as well as understanding of the ecological roles of catfish in their environments. This culminated in the catfish research and management community reconvening in St. Louis, Missouri, in 2010 for the 2nd International Catfish Symposium. Catfish 2010 was not only a scientific meeting, but also a celebration of the status of catfish as a species of importance and a celebration of the significant advancements in our understanding and communication of catfish science. The proceedings from that symposium became the largest single source of information on catfish conservation, ecology, and management ever compiled. And now, 10 years later, we gather in Little Rock, Arkansas, in February 2020 to communicate with one another on another decade's worth of scientific advances related to catfish and their interactions with people and their habitats. Our goal for this meeting was to provide a forum for the exchange of information, and to facilitate new collaborations among scientists from across the world. The program includes both oral and poster presentations covering a wide range of catfish-related topics from non-game catfish species conservation to catfish angler attitudes and opinions. Many of the topics presented in the program will be published as articles in a special issue of the North American Journal of Fisheries Management. Publishing the Proceedings of the 3rd International Catfish Symposium as a special issue of a journal rather than a book will make the information more easily accessible to managers and researchers. Your registration includes a copy of the special issue, and we trust you will find it useful for continued management of catfishes.

We hope that these surroundings and the exchange of information among our catfish peers will be as rewarding for you as it has been for us as organizers. The choice of this location on the banks of the Arkansas River, the overlap with the Southern Division of AFS's annual meeting, the proximity of Little Rock's River Market district, and the planned social events, make this a wonderful opportunity for a scientific milestone. Pulling this together would have been impossible without the guidance and support of our sponsors and our employers, and we are thankful for their contributions to this decadal event. We hope that you come early and stay late to see some of what Little Rock has to offer, and we wish you a productive and enjoyable symposium!

#### Your Hosts,

The Catfish 2020 Symposium Committee

### Your Hosts

#### Symposium

Jason Olive (jason.olive@agfc.ar.gov) Jeremy Tiemann (jtiemann@illinois.edu)

#### Program

Dan Shoup (daniel.shoup@okstate.edu) Ben Neely (ben.neely@ks.gov)

#### Proceedings

Tom Kwak (tkwak@ncsu.edu) Mark Porath (mark.porath@nebraska.gov)

Local Arrangements Justin Homan (justin.homan@agfc.ar.gov)

Special Events Kris Bodine (kris.bodine@tpwd.tx.gov)

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#### Sponsorship

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## **Plenary Speakers**

#### Pat Rakes | Conservation Fisheries Inc.

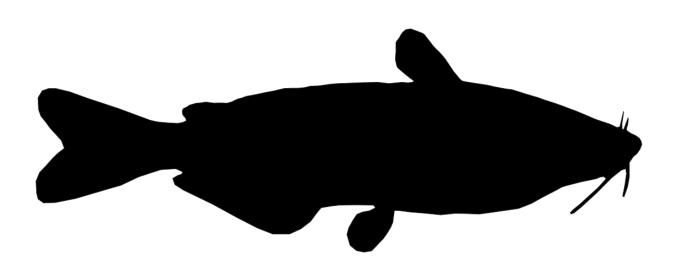


Pat has been studying rare fishes since he began his master's degree project at the University of Tennessee in Knoxville in 1982 studying the distribution and life history of the Barrens Topminnow. This work laid the foundation for efforts that continue today with ark maintenance of BTM populations at CFI. Pat and J.R. Shute founded CFI just after finishing graduate school projects and both are in awe of how it has grown since then. Years of maintaining aquaria have led to an appreciation of the art and science (the "wet thumb") involved in keeping fish alive and healthy (and interested in sex). The rewards of co-directing CFI have not been monetary, but rich in constant learning, studying the life history, ecology, reproductive biology, distribution, and taxonomy of rare fish in Tennessee, Arkansas, Missouri, Kentucky, Virginia, West Virginia, Pennsylvania, North Carolina, South Carolina, Georgia, Alabama, and Mississippi.

#### **Rob Neumann** | *In-Fisherman Magazine*

Rob is managing editor at In-Fisherman, one of the most recognized brands in freshwater angling. Since 1975, this multimedia communications company has been an industry leader in teaching people how to catch fish and promoting the wise use and sustainability of fishery resources. In-Fisherman was the first national magazine to promise regular coverage of catfish topics as part of its core species coverage, and also launched Catfish In-Sider Magazine and eventually Catfish In-Sider Guide, which remains among the company's most popular special-interest publications. Prior to his role at In-Fisherman, Rob was an associate professor of fisheries at the University of Connecticut and Southern Illinois University





## Schedule at a Glance

	Tuesday February 19	
Time	Tuesday, February 18 Event	Location
00 pm—7:00 pm Catfish 2020 Registration and Check-In		Grand Foyer
4:00 pm—7:00 pm	Presentation Upload	Peck Room
5:00 pm—7:00 pm	Welcome Social (supper not provided)	Riverview Room
	Wednesday, February 19	
Time	Event	Location
7:00 am—3:20 pm	Catfish 2020 Registration and Check-In	Grand Foyer
7:00 am—5:00 pm	Presentation Upload	Peck Room
8:00 am—8:10 am	Welcome to Catfish 2020	Conway Room
8:10 am—9:30 am	Plenary Session	Conway Room
9:30 am—9:50 am	Morning Break	Riverview Room
9:50 am—11:50 am	Technical Sessions	Harris Brake/Conway/White Oak Rooms
11:50 am—1:00 pm	Lunch on Your Own	Downtown Little Rock
1:00 pm—2:20 pm	Technical Sessions	Harris Brake/Conway/White Oak Rooms
2:20 pm—3:20 pm	Poster Session with Refreshments	Riverview Room
3:20 pm—4:40 pm	Technical Sessions	Harris Brake/Conway/White Oak Rooms
6:30 pm—9:00 pm	Grand Social (supper provided)	Old Statehouse Museum (offsite)
	Thursday, February 20	
Time	Event	Location
7:00 am—9:00 am	Presentation Upload	Peck Room
8:00 am—10:00 am	Technical Sessions	Harris Brake/Conway/White Oak Rooms
10:00 am—10:20 am	Morning Break	Riverview Room
10:20 am—12:00 pm	Technical Sessions	Harris Brake/Conway/White Oak Rooms
12:00 pm—1:00 pm	Lunch on Your Own	Downtown Little Rock
1:00 pm—5:00 pm	Southern Division Technical Meetings	Little Rock Marriott
	Friday, February 21	
Time	Event	Location
8:00 am—5:00 pm	Catfish 2020 and SDAFS Workshops	Little Rock Marriott

Room		Conway Room		
8:00 am	Welcome to Catfish 2020 – Jason Olive	Welcome to Catfish 2020 – Jason Olive and Jeremy Tiemann		
8:10 am	Plenary Talk: Madtom imperilment and	d Conservation Fisheries, Inc Pat Rakes	s, Conservation Fisheries Inc.	
8:50 am	Plenary Talk: The recreational catfishin	ng scene today - <i>Rob Neumann, In-Fisher</i>	rman Magazine	
9:30 am	Break – Riverview Room			
Room	Harris Brake Room	Conway Room	White Oak Room	
Moderator	Quinton Phelps	Dan Shoup	Tyler Stubbs	
Session	Introduced Catfish Populations	Harvest Management	Human Dimensions	
9:50 am	Efficacy of collapsible minnow traps in removing Black Bullhead from a trout stream - <i>Russell Barabe</i>	Use of angling gear to evaluate the potential benefits of minimum length limits on a highly mobile midwestern Blue Catfish population - Paul H. Michaletz, H. Ross Dames, Steffanie L. Abel	Comparison of catchability, growth, and body weight of Channel Catfish and Channel Catfish × Blue Catfish hybrids in two public put-grow- take fisheries in Kansas - <i>Ben C. Neely, Sean T.</i> <i>Lynott, Jeff D. Koch</i>	
10:10 am	Growth dynamics of invasive Blue Catfish in four subestuaries of the Chesapeake Bay, USA - Corbin Hilling, Yan Jiao, Aaron J. Bunch, Robert S. Greenlee, Joseph D. Schmitt, Donald J. Orth	Population dynamics and simulated effects of length-based trophy regulations for Flathead Catfish and Channel Catfish in the lower James River, South Dakota - <i>Benjamin J.</i> <i>Schall, Dave Lucchesi</i>	Relative catchability of Channel Catfish and Blue x Channel hybrid catfish by anglers in put-and-take urban fisheries - Thomas Hungerford, Kristopher A. Bodine, John Tibbs, Randy Myers, David Prangnell, Daniel J. Daugherty	

Room	Harris Brake Room	Conway Room	White Oak Room
Session	Introduced Catfish Populations	Harvest Management	Human Dimensions
10:30 am	Phenotypic differences in reproductive biology between two invasive populations of Blue Catfish - <i>Vaskar Nepal, Mary C. Fabrizio</i>	Providing enhanced protection for Blue Catfish at Truman Reservoir and Lake of the Ozarks - Zach Ford, Greg Stoner, Chris Brooke, Ron Reitz, Ivan Vining	Customer segmentation of catfish anglers using a survey of stated preferences to guide management decisions and ensure optimal customer service - J. Warren Schlechte, John B. Taylor, David L. Buckmeier
10:50 am	Hyperbole, simile, metaphor, and invasivore: messaging around the science of a Blue Catfish invasion - <i>Donald J. Orth, Joseph D.</i> Schmitt, Corbin D. Hilling	Population demographics of catfishes and simulated effects of length limits in the lower Ohio River - <i>Greg Whitledge, Devon Oliver,</i> <i>Daniel Stich, Neil Rude</i>	Comparison of catfish harvest between anglers using active and passive angling gears in a Texas reservoir - <i>Greg Binion, John</i> <i>Findeisen, Warren Schlechte</i>
11:10 am	Putting the genie back in the bottle: a case study of invasive Blue Catfish in the Chesapeake Bay region - Mary C. Fabrizio, Vaskar Nepal, Troy D. Tuckey	Efficacy of length and bag limits for structuring Blue Catfish populations - Nathan G. Smith, Kristopher A. Bodine, J. Warren Schlechte, Daniel E. Shoup	Size-specific exploitation of Blue Catfish and Flathead Catfish by recreational and commercial fishers in the Missouri and Mississippi Rivers, Missouri - <i>Kyle Winders, Joe</i> <i>McMullen</i>
11:30 am	Evaluation of recreational hand-crank electrofishing on introduced catfish species in southeastern North Carolina - J. Michael Fisk II, Clinton W. Morgeson, Madison E. Polera	Round 2: a four-year follow-up evaluation of a Flathead Catfish population exposed to hand fishing - <i>Kristopher A. Bodine, Richard A.</i> <i>Ott, Daniel L. Bennett, Jacob D. Norman</i>	Public input in a post-public meeting world: a border water case study - <i>Nicholas Schlesser,</i> Kevin Stauffer
11:50 am		Lunch on your own	

Room	Harris Brake Room	Conway Room	White Oak Room
Moderator	B.J. Schall	Ernesto Flores	Eric Ganus
Session	Introduced Catfish Populations	Harvest Management	Human Dimensions
1:00 pm	Channel Catfish population assessment in a low-moderate gradient, clear, mid-Atlantic stream: inference into size structure, density, growth, movement, and angler utility - <i>Brandon J. Keplinger</i>	Managing Channel Catfish populations to produce memorable-length fish in small Nebraska reservoirs - Jeffrey J. Jackson, Jordan Katt, Aaron Blank, Tony Barada	North Carolina's catfish management plan: managing catfish and people in an everchanging invasive catfish world - Corey Oakley, Christian Waters, Kevin Dockendorf, Michael Fisk, Scott Loftis, Ben Ricks, Kirk Rundle, Chris Wood
1:20 pm	Quantifying nonnative impacts: incidence and consumption of native fishes by Channel Catfish - Skyler Hedden, Keith Gido, Crosby Hedden, Casey Pennock, Bobby Duran, Brain Hines, Eliza I. Gilbert, Mark C. McKinstry, Scott L. Durst, Nathan R. Franssen	Blue and Channel Catfish harvest characteristics and impacts of minimum length and daily bag limits on harvest in Texas reservoirs - <i>Mitchell Nisbet, Randall Myers,</i> <i>Greg Binion, Dusty McDonald</i>	The changing landscape of Nebraska catfish anglers - <i>Keith Hurley</i>
1:40 pm	Invasive riparian trees provide a novel trophic subsidy to non-native Channel Catfish (Ictalurus punctatus) in the San Juan River - <i>Christopher Cheek, Brandon Peoples, Reuben</i> <i>Goforth</i>	Investigation of Channel Catfish and Blue Catfish populations dynamics in three Tennessee River reservoirs - <i>Mark W. Rogers,</i> Cole R. Harty	Catfishing in Iowa: strategic planning for the future - <i>Tyler J. Stubbs, Rebecca M. Krogman</i>
Session	Introduced Catfish Populations (cont.)	Population Demographics	Flathead Catfish Research
2:00 pm	Range expansion and factors affecting abundance of invasive Flathead Catfish in the Delaware and Susquehanna Rivers - <i>Geoffrey</i> D. Smith, Danielle L. Massie, Joseph Perillo, Daryl Pierce, Tyler Wagner	Characteristics of the Blue Catfish population and fishery at Milford Reservoir, Kansas - Ely Sprenkle, Ben Neely, Jeff Koch, Brett Miller, John Reinke	Advances from two decades of Flathead Catfish research: how far have we come since Catfish 2000? - Graham F. Montague, Daniel E. Shoup

Room	Harris Brake Room	Conway Room	White Oak Room
Session	Introduced Catfish Populations	Population Demographics	Flathead Catfish Research
2:20 pm	Poster Session with Refreshments - Riverview Room		
3:20 pm	Evaluation of molecular methods to identify diet contents of invasive Flathead Catfish Pylodictis olivaris in the Susquehanna River basin, Pennsylvania - <i>Megan K. Schall,</i> <i>Geoffrey D. Smith, Julian D. Avery, Tyler</i> <i>Wagner</i>	Status and trends of Blue Catfish and Channel Catfish on the lower Missouri River - <i>Adam</i> <i>McDaniel</i>	Exploring Flathead Catfish retention of Carlin dangler tags - Jordan D. Katt, Aaron J. Blank, Jeff J. Jackson, Tony J. Barada
3:40 pm	Trophic ecology and demographics of Flathead Catfish in the lower Cape Fear River ecosystem - David Belkoski, Fred Scharf, Kevin Dockendorf, Kyle Rachels, Clinton Morgeson	Historic trends of commercial catfish harvest in Indiana - <i>Craig Jansen, Sarah Molinaro,</i> Samuel Peterson	Falling flat: raising Flathead Catfish in a recirculating aquaculture system - Alexander Engel, Zachary Horstman, Octavious Bartek, Jamilynn Poletto
4:00 pm	Exploring legacy datasets to infer spatial and temporal trends in the ictalurid community of an Atlantic Slope river - <i>Kyle Rachels</i>	Population dynamics of Channel Catfish in the upper Mississippi River - Colby Gainer, Ethan Rutledge, Alexandria Beezel, Quinton Phelps, Kristen Bouska	Temperature effects on gastric evacuation rate and digestion efficiency of Flathead Catfish, Pylodictis olivaris - Zachary Horstman, Jamilynn Poletto
Session	Sampling Methods	Population Demographics (cont.)	
4:20 pm	Temporal patterns of capture, retention rates and efficacy of bank poles in the Kansas River: a novel sampling tool for catfish managers - Quintin Dean, Marty Hamel, Mark Pegg	Growth chronology of Channel Catfish across six Illinois rivers - Tyler Thomsen, Sabina Berry, Jim Lamer, Jason DeBoer, Andrya Whitten, Ben Lubinski, Jerrod Parker, Neil Rude, Greg Whitledge, Cassi Carpenter, Robert Colombo	
6:30 pm	Grand Social	- Old Statehouse Museum west of Little	Rock Marriott

### Thursday, February 20

Room Moderator	Harris Brake Room Bryan Sowards	Conway Room Mary Fabrizio	White Oak Room Joe McMullen
Session	Sampling Methods	Population Demographics	Habitat Use and Movement
8:00 am	Assessing the importance of single- versus chase-boat configurations when developing a low-frequency electrofishing standard population assessment for Blue Catfish and Flathead Catfish - Jeremy J. Pritt, Joseph D. Conroy, Stephen M. Tyszko	Channel catfish population dynamics upstream and downstream of Granite Falls Dam in the Minnesota River - <i>Tony Sindt</i>	Where are all the bigguns at? A look into Flathead Catfish habitat selection in a midwestern flood control reservoir - Aaron J. Blank, Jordan D. Katt, Jeff J. Jackson, Tony J. Barada
8:20 am	Effects of chase boat use on Blue Catfish samples - <i>Joseph N. Stoeckel, Zach Moran</i>	Hydrologic effects on growth and hatching success of age- 0 Channel Catfish in the Tallapoosa River basin: implications for management in regulated systems - Peter C. Sakaris, Keith Erickson, Hannah Conner, Elise R. Irwin	Population characteristics and movement patterns of Blue Catfish in the Kansas river, Kansas - <i>Quintin Dean, Marty Hamel, Mark</i> Pegg
8:40 am	Habitat use and sampling efficiency of low- frequency electrofishing for Blue Catfish - Zachary S. Moran, Joe Stoeckel, Brandon Peoples	Channel Catfish density, growth, mortality, and length structure related to stocking, environmental, and biological factors in Ohio reservoirs - Stephen M. Tyszko, Jeremy J. Pritt, Joseph D. Conroy	Emigration and habitat use of yearling Blue Catfish stocked in two Ohio reservoirs - Matt A. Hangsleben, Joseph D. Conroy, Richard D. Zweifel
9:00 am	Effect of sample duration on catch rate and size structure data for Blue Catfish collected by low-frequency electrofishing - <i>Daniel E. Shoup, Kristopher A. Bodine</i>	Population characteristics of Channel Catfish from Toledo Bend Reservoir - <i>Sean Kinney</i>	Movements and habitat use of Blue Catfish in the Arkansas River, Arkansas - Charles J. Jordan, Joseph Stoeckel, Zach Moran

### Thursday, February 20

Room Session	Harris Brake Room Sampling Methods (cont.)	Conway Room Population Demographics (cont.)	White Oak Room Conservation of Catfishes
9:20 am	Evaluating factors influencing the electrofishing catchability of Blue Catfish and Flathead Catfish - <i>Mike Thomas, William</i> <i>Morris, Zachary Ford, Andy Turner, Jan Dean,</i> <i>Craig Paukert</i>	Large river catfish fisheries: insight into catfish community dynamics across varying spatial and temporal scales - <i>Martin Hamel, Mark</i> <i>Pegg</i>	A large-scale MaxEnt model for the distribution of the endangered Pygmy Madtom, Noturus stanauli - Samantha Allen, William G. Wells, Hayden Mattingly
9:40 am	Evaluating Channel Catfish (Ictalurus punctatus) sampling efficacy using hoop-nets and trotlines in the lower White River, SD - Amy E. Gebhard, Christopher M. Longhenry, Cameron W. Goble	Population characteristics of Channel Catfish, Flathead Catfish, and White Catfish from Pennsylvania's Ohio River basin - Michael A. Depew, Geoffrey D. Smith, Timothy A. Wilson, Brian A. Ensign, Gary A. Smith	DNA barcoding as a means of classifying Himalayan Torrent Catfish in Bhutan - Karma Wangchuk, Marlis R. Douglas, Zachery D. Zbinden, Tyler K. Chafin, Sonam Wangmo, Changlu, Gopal Prasad Khanal, Pema Norbu, Sangay Norbu, Sonam Dorji, Singye Tshering, Michael E. Douglas
10:00 am		Break – Riverview Room	
10:20 am	Developing and validating a standard method to assess reservoir Channel Catfish populations - Stephen M. Tyszko, Jeremy J. Pritt, Joseph D. Conroy	Population dynamics of catfish in the Monongahela River, West Virginia - Kristen Chestnut-Faull, Quinton Phelps, Dustin Smith, David Wellman	Aspects of life history and ecology of the endangered Pygmy Madtom - William G. Wells, Hayden T. Mattingly
10:40 am	Gear specific catch rates and size structure of Channel Catfish in the upper Mississippi River - Colby Gainer, Quinton Phelps, Kristen Bouska	Population characteristics of Flathead Catfish in large impoundments in Iowa - Savannah Muhlbauer	Landscape modeling of threatened Yaqui Catfish in a data limited environment - Thomas Hafen, Andrew Taylor, Dean Hendrickson, David R. Stewart, James Long

### Thursday, February 20

Room	Harris Brake Room	Conway Room	White Oak Room
Session	Otolith and Aging	Population Demographics (cont.)	Conservation of Catfishes (cont.)
11:00 am	An evaluation of two lethal aging techniques using Blue, Channel and Flathead Catfish - Peter C. Sakaris, Timothy F. Bonvechio	Effects of bullhead removals on fish community dynamics in a northern Wisconsin lake - Logan Sikora, Justin VanDeHey, Gregory Sass, Gregory Matzke, Glenn Schumacher, Mike Preul	Genetic structure and diversity of the endemic Carolina Madtom and conservation implications - W. Robert Cope, Thomas J. Kwak, Tyler R. Black, Krishna Pacifici, Sheila C. Harris, Caitlin M. Miller, Morgan E. Raley, Eric M. Hallerman
11:20 am	Estimating daily growth of age-0 Channel Catfish in a commercially exploited midwestern river - <i>Kaleb Wood, Cassi Moody-</i> <i>Carpenter, Eden Effert-Fanta, Robert Colombo</i>	Small-scale commercial fishery of the Balsas River Catfish (Ictalurus balsanus) in México - Humberto Mejía Mojica, Topiltzin Contreras MacBeath, Gabriela Beltrán López, Norma Janet González Montes de Oca, Manuel Rivas González, Mara Erika Paredes Lira	Northern Madtom (Noturus stigmosus) use of artificial reefs in the St. Clair – Detroit River system - Jennifer L. Johnson, Justin Chiotti, Andrew Briggs, James Boase, Ed Roseman, Jan-Michael Hessenaur
11:40 am	Quantifying contributions of stocked Channel Catfish in reservoir populations using otolith microchemistry - Cory Becher, Stephen M. Tyszko, John W. Olesik, Stuart A. Ludsin	Ten kilometers of catfish: the distance between Catfish 2010 and Catfish2020 – Mark Pegg, Kevin Casper, Eva C. Enders, Geoff Klein, Derek Kroeker, and Doug Watkinson	Regional effects of land use on growth of Brown Bullhead Catfish in the Chesapeake Bay watershed - <i>Taylor L. Harof, Peter C. Sakaris,</i> <i>Alfred E. Pinkney</i>
12:00 pm	Meeting adjourns. Thank you	for attending Catfish 2020: The Third In	ternational Catfish Symposium

## Poster Session

**1)** Does improving water quality explain differences in Neosho Madtom densities throughout the Spring River in southeastern Kansas? - *Kali L. Boroughs, James E. Whitney* 

**2)** Applications of hydrologic-climatic, genetically informed species distribution modelling for headwater conservation - *Brittany L. McCall, Brook L. Fluker* 

**3)** Fecundity of Flathead Catfish and Blue Catfish from the Mississippi River between Hannibal and Cape Girardeau, Missouri - Jacob D. Colehour, Zachary L. Ford, Kyle R. Winders, Scott E. Lankford

**4)** An analysis of left and right pectoral spine age estimations for Blue Catfish (*Ictalurus furcatus*) and Flathead Catfish (*Pylodictis olivaris*) - *Charles deShazer* 

**5)** Comparison of Blue Catfish (*Ictalurus furcatus*) and Flathead Catfish (*Pylodictis olivaris*) age estimates derived from pectoral spines and lapilli otoliths - *Joe McMullen, Kyle Winders, Ivan Vining* 

**6)** Size and age structure of introduced populations of Blue Catfish (*Ictalurus furcatus*) in two Kansas reservoirs and implications for management - *Ernesto Flores, William J. Stark* 

**7)** Length-age relationship and condition factor of the Balsas River Catfish *Ictalurus balsanus*, for the design of a sustainable fishery in the Amacuzac River, Morelos, México - *Norma Janet González Montes de Oca, Humberto Mejía Mojica* 

8) Population characteristics of Channel Catfish in southeastern Nebraska rivers: assessment of growth and abundance in highly dynamic lotic systems - Matthew A. Perrion, Tony J. Barada, Aaron J. Blank, Jeff J. Jackson

**9)** Ohio reservoir Channel Catfish population characteristics: abundance, growth, condition, & size structure - *Garrett R. Johnson, Stephen M. Tyszko, Jeremy J. Pritt, Joseph D. Conroy* 

10) Managing Channel Catfish harvest with a 15-inch minimum-length limit - Bryan Sowards

11) Updates in the management of Wisconsin's catfish - Bradd Sims

**12)** A review of marking and tagging methods for North American freshwater catfishes - *Ben C. Neely, Jeff D. Koch, Nicholas W. Kramer* 

**13)** Using closed-captures population analyses to estimate Channel Catfish population size - *Camden Oathout, Mark Pegg, Cameron Goble* 

14) Evaluation of gill net design to sample catfish in Kansas impoundments - Nick Kramer

**15)** Effectiveness of Zote soap baited trotlines in assessing Channel Catfish and turtle bycatch - *Hae Kim, Coty Prunest, Colton McKivitiz, Ethan Rutledge, Colby Gainer, Kristen Chestnut, Quniton Phelps* 

**16)** Channel Catfish catch in various types of baited hoop nets in the Illinois River - Sam Schaick, Jesse Williams, Levi Solomon, James Lamer

**17)** Evaluation of three gear types for estimating population demographics of catfish in a large, West Virginia river - *Kristen Chestnut-Faull, Quinton Phelps, Dustin Smith, David Wellman* 

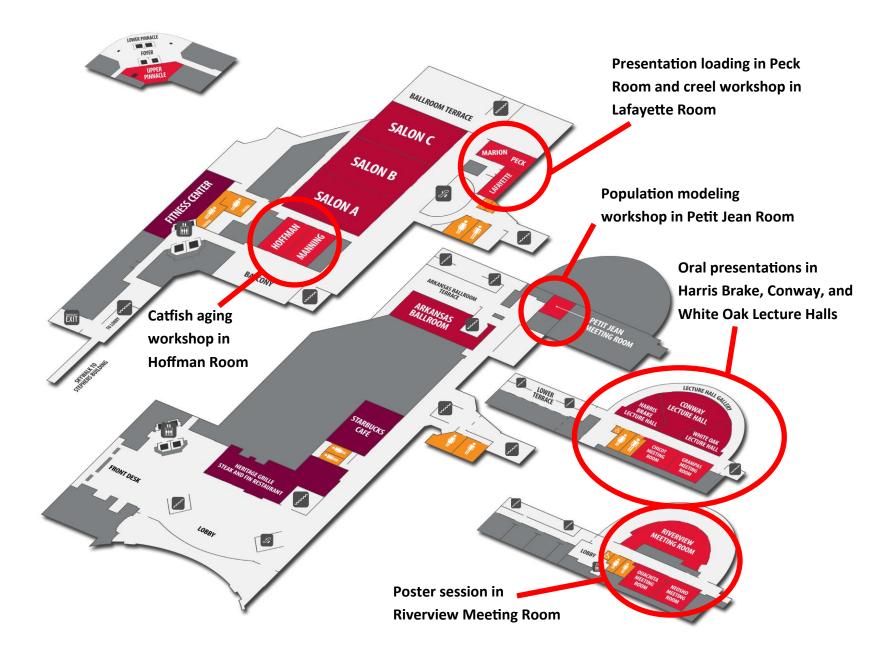
#### Abstracts available for all oral and poster presentations at:

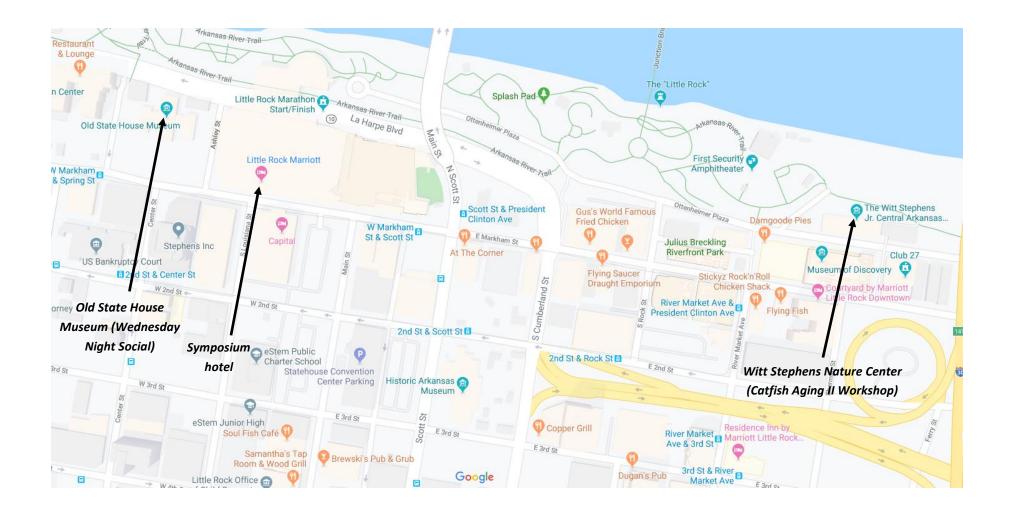






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## Catfish 2020 Sponsored Workshops

#### Catfish Aging I

8:00 am – 12:00 pm Hoffman Room, Little Rock Marriott

The workshop will provide background information on current age estimation techniques for catfishes including the use of otoliths and spines. Content will include both information about the process of age estimation and the use of catfish age data including the validity of otolith and spine derived age data. In addition to presentations, time will be allotted for an open discussion to answer questions and allow participants to share their experiences.

**Presenters:** John Tibbs (john.tibbs@tpwd.texas.gov), Dave Buckmeier (david.buckmeier@tpwd.texas.gov), and Robert Colombo (recolombo@eiu.edu)

Catfish Aging II 1:00 pm – 5:00 pm Witt Stephens Jr. Central Arkansas Nature Center 602 President Clinton Ave.

This workshop will build on Catfish Aging I and is intended for those participants that are actively trying to estimate the ages of catfishes using otoliths and spines. Catfish Aging II will provide hands-on demonstrations of preparation techniques and annulus interpretation. Participants will be able to participate in removal, preparation, and aging of both otoliths and spines. Attendance is limited to allow participants to ask specific questions and advice regarding the techniques demonstrated.

**Presenters:** John Tibbs (john.tibbs@tpwd.texas.gov), Dave Buckmeier (david.buckmeier@tpwd.texas.gov), and Robert Colombo (recolombo@eiu.edu)

#### **Population Modeling** 8:00 am – 5:00 pm Petit Jean Room, Little Rock Marriott

The objective of this course it to provide managers the tools to explore and predict how various regulation options can improve and sustain their catfish fisheries. Further, this tool will help managers understand how sensitive various outputs are to their assumptions and inputs. We will develop models to explore the potential for growth and recruitment overfishing in catfish fisheries. We will provide the basics of population modeling with no modeling background required. This class and model will provide the foundation for more complex models, where appropriate data elements exist.

## Catfish 2020 Sponsored Workshops

We will build and use an age-structured model in Excel. The model will be parameterized using some typical growth, maturity, and mortality rates from catfish populations. We will then use the model, plus the vital rates, to explore how various regulation would be expected to affect the population (e.g., angler catch, occurrence of trophy fish, potential for overfishing, etc.). Within this class we will discuss a variety of topics associated with the collection of growth and mortality data, use of creels to estimate exploitation, as well as strengths and weaknesses of this model construct.

Participants will be encouraged to build these models themselves in Excel for use outside the classroom with their own data once back at home. Users should be comfortable with Excel, Excel functions, and the basics of fish population dynamics.

Presenters: Micheal S. Allen (msal@ufl.edu) and Warren Schlechte (warren.schlechte@tpwd.texas.gov)

#### **Creel Surveys: Designing Complex Solutions to Simple Questions**

8:00 am – 5:00 pm

#### Lafayette Room, Little Rock Marriott

The workshop will provide a lights-on, participant-driven, introduction to the complexities and challenges of conducting onsite angler assessments and novel analyses. We will lay the groundwork for developing more in-depth design and analysis of angler-fish interactions. This workshop will also provide a forum for participants to discuss difficulties and solutions facing the study of catfish anglers.

Presenters: Mark Kaemingk (mkaemingk2@unl.edu), Kevin Pope, Chris Chizinski, and Keith Hurley

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