



**Southeastern Fishes Council
41st Annual Meeting Program
November 11–13, 2015
Gainesville, Florida**

WEDNESDAY, NOVEMBER 11, 2015

3:00–7:00 **Registration**
7:00– **Informal gatherings at local establishments**

THURSDAY, NOVEMBER 12, 2015

7:00 **Registration**

**PLENARY SESSION
DEDICATED TO DR. H.T. BOSCHUNG**

- 8:15 Welcome and meeting announcements – Jim Williams, Florida Museum of Natural History, Gainesville, FL
- 8:30 DR. H.T. BOSCHUNG: THE EARLY YEARS
Jim Williams and Katie Boschung
- 8:45 DR. H.T. BOSCHUNG: THE LATER YEARS
Bernie Kuhajda
- 9:00 THE MAKING OF *FISHES OF ALABAMA*
Rick Mayden
- 9:15 BO: THE MAN
Dave Etnier
- 9:30 WALTER R. COURTENAY JR AND NONINDIGENOUS FISHES
Jim Williams

9:40–10:00 **Break**

- 10:00 VECTORS OF AQUATIC INTRODUCTIONS IN THE SOUTHEASTERN UNITED STATES: PAST AND PRESENT, HERE AND THERE
Matthew E. Neilson and Pam Fuller
- 10:15 COMPETITION BETWEEN ASIATIC WEATHERFISH, *MISGURNUS ANGUILLICAUDATUS*, AND NATIVE SOUTHEASTERN FISH SPECIES: BIOTIC AND ABIOTIC FACTORS
Mark Meade, Linday White, and Rahim Zettili
- 10:30 INTERSEASONAL DIETS, CRITICAL THERMAL MINIMUM, AND DISTRIBUTION OF JACK DEMPSEY, *ROCIO OCTOFASCIATA*, IN FALL RIVER, SOUTH DAKOTA
Logan Gutzmer, Matthew Wagner, Chad Kaiser, Brian D.S. Graeb, and Katie N. Bertrand
- 10:45 STATUS OF NONINDIGENOUS FISHES IN NORTH CAROLINA
Steve Fraley, Bryn H. Tracy, and Andrea Leslie
- 11:00 HYBRIDIZATION AND REPLACEMENT OF ROANOKE BASS (*AMBLOPLITES CAVIFRONS*) WITH INVASIVE ROCK BASS (*A. RUPESTRIS*) IN VIRGINIA: A GENETIC ASSESSMENT OF THE SCOPE OF THE PROBLEM
Jackman Eschenroeder and James Roberts
- 11:15 CHANGES IN LAND USE AND FISH ASSEMBLAGES IN THREE OZARK HIGHLAND STREAMS OVER FOUR DECADES
Heather A. Saco, Ginny L. Adams, and S. Reid Adams
- 11:30 EFFECTS OF HYDROLOGIC CHANGE ON STREAM FISH ASSEMBLAGES IN ALABAMA
Warren Stiles and Carol Johnston

11:45–1:15 Lunch

- 1:30 NEXT GENERATION SEQUENCING AND THE PHYLOGENETICS OF DARTERS
Thomas J. Near and Daniel J. MacGuigan
- 1:45 PHYLOGENOMICS OF THE DARTER CLADE *BOLEOSOMA*
Daniel J. MacGuigan and Thomas J. Near
- 2:00 FUNCTIONAL DIVERSITY OF SOUTHEASTERN U.S. FISH COMMUNITIES
Joshua M. Epstein, Ben Baiser, William E. Pine, Christina M. Romagosa, and Catherine Phillips

- 2:15 EXAMINING ISOLATION BY DISTANCE AND ISOLATION BY ENVIRONMENT FOR SIX HEADWATER AND SMALL STREAM RESIDENT FISHES WITHIN SIX DRAINAGES IN MISSISSIPPI AND ARKANSAS
Bjorn Schmidt, Jake Schaefer, and Brian Kreiser
- 2:30 MINNOWS ON THE EDGE: INCORPORATING PHYLOGENY INTO CONSERVATION BIOLOGY
Milton Tan and Jonathan W. Armbruster
- 2:45 ROLE OF NUPTIAL COLORATION IN INTERSPECIFIC COMMUNICATION: EXAMINING COLOR VISION IN A NEST HOST, THE CREEK CHUB
Mattie C. Lewis and Mollie F. Cashner
- 3:00 CONSERVATION GENETICS OF THE BROADSTRIPE SHINER, *PTERONOTROPIS EURYZONUS*, AN ENDEMIC SPECIES OF THE MIDDLE CHATTAHOOCHEE RIVER
Malorie M. Hayes, Erika R. Krahl, David C. Werneke, and Jonathan W. Armbruster
- 3:15 USING SIDE SCAN SONAR AND GIS TO ASSESS SPAWNING HABITAT FOR LAKE STURGEON, *ACIPENSER FULVESCENS*, BELOW TVA DAMS ON THE UPPER TENNESSEE RIVER
Daniel J. Walker and J. Brian Alford
- 3:30 BODY SIZE IS NEGATIVELY CORRELATED WITH TROPHIC POSITION AMONG MINNOWS
Edward Burress, Jordan Holcomb, and Jonathan Armbruster

3:45–4:00 Break

4:00–5:30 **Business meeting**

6:00–6:30 Poster set-up

6:30–10:30 Evening social and posters reception

FRIDAY, NOVEMBER 13, 2015

- 8:15 REGIONAL REFERENCE CURVES AND ECOLOGICAL ENDPOINTS USING FISHES AND CRAYFISHES FOR THE APPALACHIAN PLATEAU OF ALABAMA
Eric Bauer, Brian Helms, David Werneke, Jason Zink, and Greg Jennings

- 8:30 SHAPE VARIATION AMONG LINEAGES OF THE SOUTHERN CAVEFISH SPECIES COMPLEX IN THE SOUTHEASTERN U.S.
Pamela B. Hart and Jonathan W. Armbruster
- 8:45 SYNTHESIZING MULTISCALE PROCESSES REGULATING PERSISTENCE OF ARKANSAS DARTER, *ETHEOSTOMA CRAGINI*
C. Juju Wellemeyer, Joshua S. Perkin, Mary Liz Jameson, and Katie H. Costigan
- 9:00 VARIATION IN FISH ASSEMBLAGE COMPOSITION AND POPULATION DYNAMICS ACROSS A GRADIENT OF NATURAL GAS DEVELOPMENT ON THE FAYETTEVILLE SHALE, ARKANSAS
Brittany V. Furtado, Loren Stearman, Jessie Green, Ginny Adams, and Reid Adams
- 9:15 PHYLOGEOGRAPHY OF THE THREADFIN SHAD (*DOROSOMA PETENENSE*, GÜNTHER, 1866)
Diego Elias and Kyle Piller
- 9:30 SAVING THE ENDANGERED DEAD: A COMPARISON OF REHYDRATION METHODS FOR DESICCATED PRESERVED FISH SPECIMENS
Mary Rath, Kenny Jones, Lindsey Martin, Alexis Mross, Starlene M. Loerch, Alexandra T. Hook, and Brook L. Fluker
- 9:45 LOITERS, LEAVERS, AND LEPTOKURTOSIS: MEASURING AND PREDICTING SHORT-TERM MOVEMENT OF BANDED SCULPIN, *COTTUS CAROLINAE*, IN TENNESSEE
Amy E. Gebhard, William G. Wells, Thomas C. Johnson, Robert T.R. Paine, Lucas A. Hix, Heather N. Ferrell, Andrea N. Engle, and Joshua S. Perkin

10:00–10:15 Break

- 10:30 RATES AND STATES IN FLOW ECOLOGY: WHAT ARE THEY, HOW ARE THEY DIFFERENT, AND WHY DOES IT MATTER?
Kit Wheeler, Mary C. Freeman, and Seth J. Wenger
- 10:45 FROM MUSSELS TO STURGEON, SIDE SCAN SONAR HELPS ADVANCE THE CONSERVATION MISSION
Adam Kaeser
- 11:00 POPULATION GENETIC STRUCTURE BETWEEN FALL AND SPRING SPAWNED ATLANTIC STURGEON (*ACIPENSER OXYRINCHUS OXYRINCHUS*) IN THE EDISTO RIVER, SOUTH CAROLINA
Daniel J. Farrae, Tanya L. Darden, and William C. Post

- 11:15 POPULATION STATUS OF HARLEQUIN DARTERS (*ETHEOSTOMA HISTRIO*)
IN THE ESCAMBIA RIVER WATERSHED, FLORIDA
Kate Harriger, John Knight, and Matt Wegener
- 11:30 THE EVOLUTIONARY ECOLOGY OF CYPRINIDS
Jonathan Armbruster, Edward Burress, Shobnom Ferdous, and Paul Wiczorek
- 11:45 ENDANGERED SPECIES PROTECTION FOR SOUTHEASTERN AQUATICS
D. Noah Greenwald and Tierra R. Curry
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12:00–1:15 Lunch

- 1:15 **Student Best Papers and Posters Awards – Steve Walsh, USGS, Gainesville, FL**
- 1:30 FISHES OF OHIO INVENTORY AND DISTRIBUTION PROJECT
Brian J. Zimmerman, Marc R. Kibbey, and Marymegan Daly
- 1:45 LIFE HISTORY THEORY PREDICTS LONG-TERM FISH ASSEMBLAGE
RESPONSE TO IMPOUNDMENT CONSTRUCTION
Joshuah S. Perkin, Thomas C. Boersig, Amy E. Gebhard, Lucas A. Hix, Thomas C.
Johnson, and Natalie E. Knrop
- 2:00 MOLECULAR AND MORPHOLOGICAL DATA REVEAL MULTIPLE SPECIES
MASQUERADING AS *ETHEOSTOMA KENNICOTTI*
Richard C. Harrington, Ethan France, Matthew R. Thomas, and Thomas J. Near
- 2:15 EVALUATION OF THE ROBUST REDHORSE (*MOXOSTOMA ROBUSTUM*)
RESTORATION EFFORT IN THE SANTEE RIVER BASIN, SOUTH CAROLINA
Tanya Darden, Forrest Sessions, Scott Lamprecht, Daniel Farrae, Jason Bettinger, and
the Robust Redhorse Conservation Committee
- 2:30 SEARCH FOR BLACKBANDED SUNFISH, *ENNEACANTHUS CHAETODON*,
POPULATIONS IN FLORIDA
Travis Tuten and Eric Nagid
- 2:45 PAST AND RECENT EFFORTS TO ASSESS BLACKBANDED SUNFISH
POPULATIONS IN VIRGINIA
Michael J. Pinder and Derek A. Wheaton
- 3:00 DEVELOPMENT OF AN EDNA TOOL FOR BLACKBANDED SUNFISH
(*ENNEACANTHUS CHAETODON*)
Tim O'Donnell, Matt Walker, John Robinson, Mark Scott, Kevin Kubach, Brett
Albanese, and Tanya Darden

- 3:15 GENETIC AND MORPHOLOGICAL PATTERNS OF HYBRIDIZATION BETWEEN *NOTHONOTUS CAMURUS* AND *NOTHONOTUS RUFILINEATUS* IN THE EMORY RIVER, TENNESSEE
Jennifer Schilling, Sam Borstein, Joel Corush, and Ben Keck
- 3:30 RECOVERY OF SOUTHEASTERN AQUATIC DIVERSITY
Loyal Mehrhoff
- 3:45 EVIDENCE FOR A NEW SPECIES OF DARTER, SUBGENUS *OLIGOCEPHALUS*, GENUS *ETHEOSTOMA*, FROM EASTERN TRIBUTARIES OF THE LOWER MISSISSIPPI RIVER, MISSISSIPPI AND TENNESSEE
Henry L. Bart Jr., David A. Etnier, and Wayne C. Starnes
- 4:00 PLEISTOCENE RIVER DRAINAGES OF FLORIDA: EVIDENCE FROM FOSSIL FISH AND MUSSELS
Jim Williams
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POSTERS (alphabetical by title)

A Northern Fish in a Southern Land: Conservation Status of Trout-perch (*Percopsis omiscomaycus*) in Tygart's Creek and Lewis County, Kentucky

- Brooke Washburn and David Eisenhour

A Test of Intraspecific Size-dependent Variation in Male Intromittent Organs in a New Species of Crayfish (Cambaridae: *Orconectes*) from Tennessee

- Danielle R. McCain, John W. Johansen, and Rebecca E. Blanton

An Index of Biotic Integrity for Wadeable Streams in the North Carolina Sand Hills

- Bryn H. Tracy

Captive Propagation and Reintroduction of the Cumberland Darter, *Etheostoma susanae*, in the Upper Cumberland River Drainage, Kentucky

- Stephanie L. Brandt, Matthew R. Thomas, Patrick L. Rakes, J.R. Shute, Crystal L. Ruble, and Melissa A. Petty

Conservation Genetics of the Blueface Darter (*Etheostoma* sp. cf. *zonistium*), a Rare Undescribed Fish in Northwest Alabama

- Kenny Jones, Brook L. Fluker, and Bernard R. Kuhajda

Cytochrome *b* Lineage Assessment of Blackside Dace (*Chrosomus cumberlandensis*) from the Kentucky River System

- Brooke A. Bedal and Mollie F. Cashner

Diet Overlap by Fish Species in the Volusia Blue Spring Food Web

- *Genevieve Patrick, Emily Workman, Kirsten Work, Melissa Gibbs, and Jonathan Freedman*

Fish Assemblages as Indicators of Agricultural Land Use Impacts in the Nolichucky River Watershed of Tennessee

- *Brian Alford, Joyce Coombs, Justin Wolbert, and Hayley Gotwald*

Freshwater Information Network (FIN): A Collaborative Effort to Create a Freshwater Species Database for the Southeastern United States

- *Sarah Hazzard, Bernie Kuhajda, Anna George, Joe Powell, Mack Lunn, Justin Medley, Daniel Samples, and Coco Bennett*

Life History of the Crystal Darter, *Crystallaria asprella*, as a Surrogate for the Federally Endangered Diamond Darter, *Crystallaria cincotta*

- *Crystal L. Ruble, J.R. Shute, and Patrick L. Rakes*

Molecular and Morphological Species Delimitation in the Greenthroat Darter, *Etheostoma lepidum*

- *Daniel J. MacGuigan and Thomas J. Near*

Movement Patterns for Reintroduced Lake Sturgeon in the Upper Tennessee River System

- *Christina Grace Saidak, Dr. J. Larry Wilson, and Mark A. Cantrell*

NHC3: A Novel Approach to Encourage Student Participation in Natural History Collections Preservation, Research, and Outreach

- *Christopher Thigpen, Mary Rath, Alexandra Hook, Kari Harris, and Travis Marsico*

Predicting the Geographic Ranges of Non-native Cichlids in Florida with Climate Change

- *Joseph A. Andreoli*

Preliminary Characterization of the Dermal Mucosal Microbiome of Red Drum (*Sciaenops ocellatus*)

- *Tyler Newburn, Brittany Butcher, and Michael Sandel*

Recent Discovery of the Ohio Shrimp, *Macrobrachium ohione*, in the St. Francis, White, and Arkansas Rivers

- *Geoffry Spooner, Lindsey Lewis, and Reid Adams*

Should Fisheries Conservationists and Biologists Adopt a More “Fish-friendly” Diet?

- *Johnathan Davis*

Species Discovery and Delimitation of Barcheek Darters, *Oopareia*

- *Thomas J. Near and Matthew R. Thomas*

The Importance of Georeferencing Small Natural History Collections and Their Contributions to Large Online Databases

- *Jessica Buford, Brittany L. McCall, and Brook L. Fluker*

The Southeastern Aquatic Biodiversity Conservation Strategy

- *Duncan Elkins, Anna L. George, Sarah C. Hazzard, Bernard R. Kuhajda, and Seth J. Wenger*

Translocation of the Bluebreast Darter, *Etheostoma camurum*, to the Upper Licking River Basin of Ohio

- *Brian J. Zimmerman, Daniel Symonds, and S. Mazeika P. Sullivan*

Urbanization and Range Stability of *Etheostoma tallapoosae* and *Etheostoma stigmaeum*

- *Kasey Benesh, Milton Tan, and Jonathan Armbruster*

Use of Pectoral Fin Rays to Test the Effect of Stream Discharge on Growth of Sicklefin Redhorse

- *Fernando Serrano and Johnathan Davis*

Utilizing Species Distribution Models to Prioritize the Habitat of the Yazoo Darter, *Etheostoma raneyi*, a Headwater Specialist

- *Joshua Hubbell*