



Southern Division News

Southern Division of the American Fisheries Society



Winter 2014



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Questions/comments:

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President's Message: *Cherish the ones...*

Mike Allen, SDAFS President, msal@ufl.edu

In the weeks leading up to the SDAFS meeting in Charleston, things were busy with Division business. There were pending issues with the list serve, last-minute meeting details, and lots of stuff that at the time seemed so important and critical to deal with as an officer of the SDAFS.

Then, the week prior to our meeting in Charleston I received word that Dr. David Willis, longtime professor at South Dakota State University, had died unexpectedly at far too young of an age (see tribute to Dave in this newsletter). I interviewed with Dave for my Ph.D. back in 1992, and I have known him as a good friend for over 20 years since that time.

Suddenly all the SDAFS business that seemed so important didn't seem so pressing. I thought back about how our Society is made up of so many good people. After decades in this profession they become not just colleagues, not just close friends, but in many ways they become part of our extended family.

Family? Seriously? How can that be? Well, if you think about it, many of us in fisheries live a long way from where we grew up. Through travels in AFS, we often see our close fisheries professionals at least one to two times per year, and each of those visits is often 3-4 days in length. If you look over 20 or 30 years of work, it means that many of us see our close colleagues in AFS as much, if not more, than we see some family members back in our hometowns.

These colleagues become part of us, they become part of who we are. They become part of our network of closest people that we can talk with about our personal and professional lives. In the past year I've had some difficult personal challenges in my life, and honestly I've been humbled to find such strong support from my colleagues in this business. I have found through our Society a network of extended family that have been a solid support system for me, and for that I am so grateful.

Take time to cherish the friends and mentors in your life, and use the time at AFS meetings to get close with people, and develop that network on which all of us can lean on for support and guidance as we move through our profession.

Thank you to all of my wonderful mentors and friends over these years. I want you to know that I cherish the relationships we have, and I am honored to serve as a mentor and friend to my younger colleagues and students that I've been so fortunate to work with. I wish for all of you that you develop similar relationships using AFS as a mechanism for personal and professional growth.

From former *Eagles* drummer Don Henley: "There's just so many summers baby, and just so many springs..."



President Mike Allen (right) with former SDAFS President Mike Van Den Avyle

Thank you, South Carolina!

As the SDAFS winter newsletter is typically released prior to the spring meeting, we seldom get the chance to immediately thank our host chapter. The members of South Carolina chapter went to great lengths to make this year's meeting in Charleston a huge success. This meeting was very well attended—575 SDAFS members met up in the Low Country to exchange fantastic research and partake in great food and fun all around. So, from all the SDAFS members—*thank you, South Carolina!* We'll see you next year in Savannah!

Remembering Dave Willis

By Brian Murphy



The fisheries world is saddened by the sudden loss of Dr. David W. Willis on 13 January 2014. Distinguished Professor and Head of the Department of Natural Resource Management at South Dakota State University (SDSU), Dave was ice fishing with his wife and grandson on a local South Dakota pond when he suffered an aortic aneurism; he passed away due to complications following emergency surgery.

A massive blizzard did not prevent almost 300 people from attending a memorial service in Brookings; they came from a wide swath of North America, from Canada to Texas and Wyoming to Boston. In keeping with Dave's light-hearted nature, a reception to celebrate his life featured a sign reading, "In remembrance of Dr. Dave Willis, NO light beers will be offered."

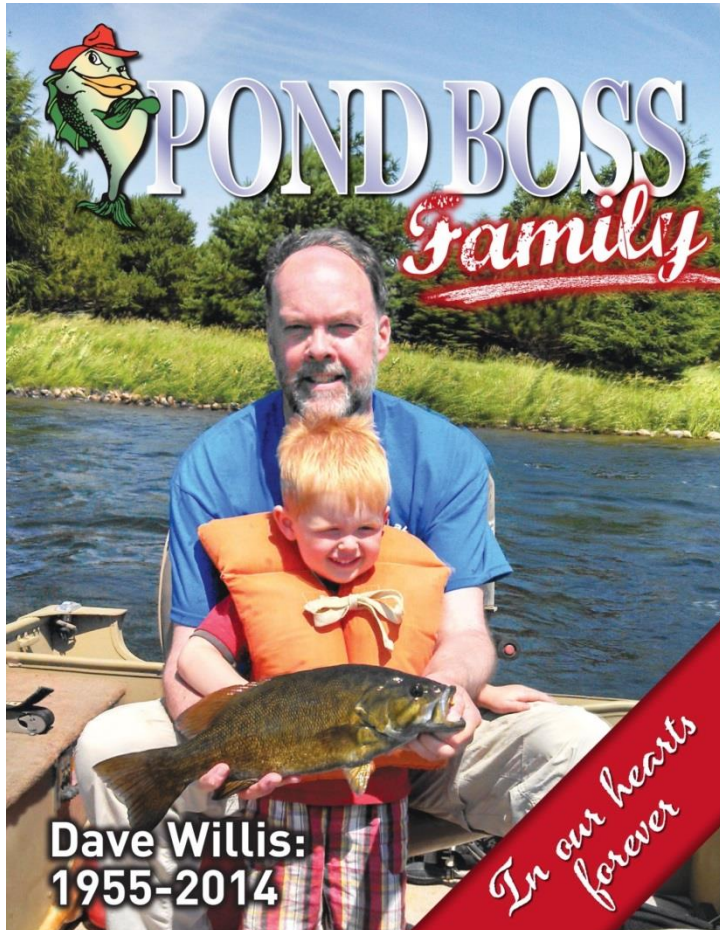
Dave received degrees (BS, MS) from the University of North Dakota, and earned the PhD in Fishery Biology from Colorado State University. Over the course of his post-graduate career he worked at Pittsburg State University, the Kansas Fish and Game Commission, and Emporia State University, before beginning his long faculty tenure at SDSU (1987-2014). A Life Member of AFS, Dave served as President of both the North Central Division and the Fisheries Management Section.

Although Dave's career was spent in the upper Midwest, many of us in the Southern Division have long benefitted from his



Dave Willis visiting what he called "The Mecca of Pond Management"

extensive work on pond and reservoir fisheries management, and his research on the development and use of population indices (PSD - proportional size distribution; and W_r - relative weight) for assessing freshwater fish populations.



Pond Boss magazine remembers Dave Willis

accomplishments but first and foremost through his humble and gentle friendship and mentorship. Nobody who ever met Dave came away without feeling that he was their friend, and that he was more interested in their work than in his own. To recognize his tremendous professional and personal contributions, Southern Division members at our recent Annual Meeting in Charleston unanimously passed a resolution awarding Dave the first-ever “Southern Division American Fisheries Society Amazing Career Award.” Copies of the resolution and the award plaque, along with condolences from our Division, are on their way to both Dave’s family and his SDSU colleagues.

In 2007, Dave’s broad influence on fisheries management was recognized with his induction into the *National Fisheries Management Hall of Excellence*. Even Southern Division members who do not work in freshwater or with reservoir fisheries have been influenced by Dave, through his work to co-edit the 2nd edition of the popular AFS reference book, *Fisheries Techniques* (the “red book” to so many fisheries students). Among more than 250 journal articles and five books, he most recently co-edited *Small Impoundment Management in North America*, which includes contributions by many Southern Division members.

Dave’s influence on fisheries science will live on through the hundreds of students that he mentored, including more than 50 graduate students who are scattered across North America with various agencies and universities. And Dave’s mentorship efforts often reached the fishing public through frequent articles in *In Fisherman* magazine, as well as his articles and chat-board contributions for pond owners in *Pond Boss* magazine.

But most of all Dave’s memory will live in all of us he touched, not only through his professional

Want to communicate with other SDAFS members without filling everyone else’s inbox? You’re in luck—SDAFS now has it own Facebook group! Anyone can join and post...join the conversation!



Gone Fishin'

I've finished life's chores assigned to me,
 So put me on a boat headed out to sea.
 Please send along my fishing pole
 For I've been invited to the fishin' hole.

Where every day is a day to fish,
 To fill your heart with every wish.
 Don't worry, or feel sad for me,
 I'm fishin' with the Master of the sea.

We will miss each other for awhile,
 But you will come and bring your smile.
 That won't be long you will see,
 Till we're together you and me.

To all of those that think of me,
 Be happy as I go out to sea.
 If others wonder why I'm missin'
 Just tell 'em I've gone fishin'

-Delmar Pepper

(read at Dave's memorial service in Brookings, SD, 16 January 2014)



Dr. David W. Willis

Dr. Dave Willis received a B.S. and a M.S. from the University of North Dakota in 1977 and 1978, respectively, and a Ph.D. from Colorado State University in 1980. He served as a District Fisheries Biologist and Reservoir Fisheries Investigator for the Kansas Fish and Game Commission before joining the faculty of the Department of Wildlife and Fisheries Sciences at South Dakota State University (SDSU) in 1987. In 2002, he was one of only 15 faculty members to ever be recognized as a Distinguished Professor at SDSU and has mentored over 40 graduate students to date.

Dave's contributions in fisheries management research and education have been remarkable. His productive working relationships with several federal and upper Midwest state agencies has led to the publication of over 165 peer-reviewed articles in the fisheries literature. He has served as a coeditor, coauthor or author on seven books including the 1996 American Fisheries Society (AFS) publication *Fisheries Techniques*, 2nd edition that is often used as a textbook in fisheries management courses. Dave frequently presents workshops to federal and state agencies on the tools and practices used in fisheries management. His national leadership in fisheries management education for both professionals and laymen was recognized by the AFS Excellence in Fisheries Education Award in 1997 and the AFS Excellence in Public Outreach Award in 2003.

As a member since 1978, Dave has been deeply involved in AFS in a variety of roles. He has held five elective offices including President of the Fisheries Management Section (2003-2005), President of the North Central Division (1991-1992), and President of the Kansas Chapter (1986-1987). Dave has chaired or been a member of 41 standing or ad hoc AFS committees. He has served as an associate editor (1999-2004) of the *North American Journal of Fisheries Management* and as a member of the AFS Book Editorial Advisory Board since 1997.

The exemplary research and education efforts of Dr. David W. Willis will continue to serve the national fisheries management community long into the future.

Elected into the NATIONAL FISHERIES MANAGEMENT HALL OF EXCELLENCE, 2007
 Executive Committee, Fisheries Management Section, American Fisheries Society



Alabama · Arkansas · Florida · Georgia · Kentucky
Louisiana · Maryland · Mississippi · North Carolina
Oklahoma · Puerto Rico · South Carolina · Tennessee
Texas · Virginia · Washington D.C. · West Virginia

RESOLUTION: *Recognition & Appreciation for the Life and Work of Dr. David W. Willis*

WHEREAS, the all-too-short career of Dr. David W. Willis, better known as Dave, has had outsized beneficial influence on modern freshwater fisheries management in North America; and

WHEREAS, Dave’s mentorship of more than 50 graduate students and countless undergraduate students enabled them to become leaders themselves in fisheries management and fisheries education throughout North America, including strong influences here in the Southern Division; and

WHEREAS, Dave’s published work, totaling more than 250 papers in the scientific literature, has helped to improve the way that we look at fisheries assessment and management, particularly in the areas of fish condition and fish population structure, the assessment of sportfish populations, and the effective management of impoundments large and small; and

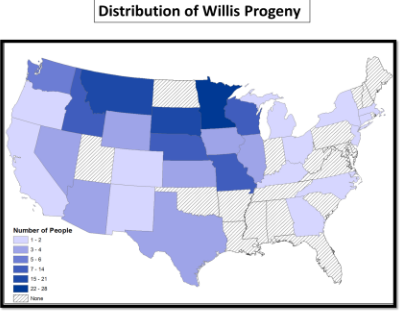
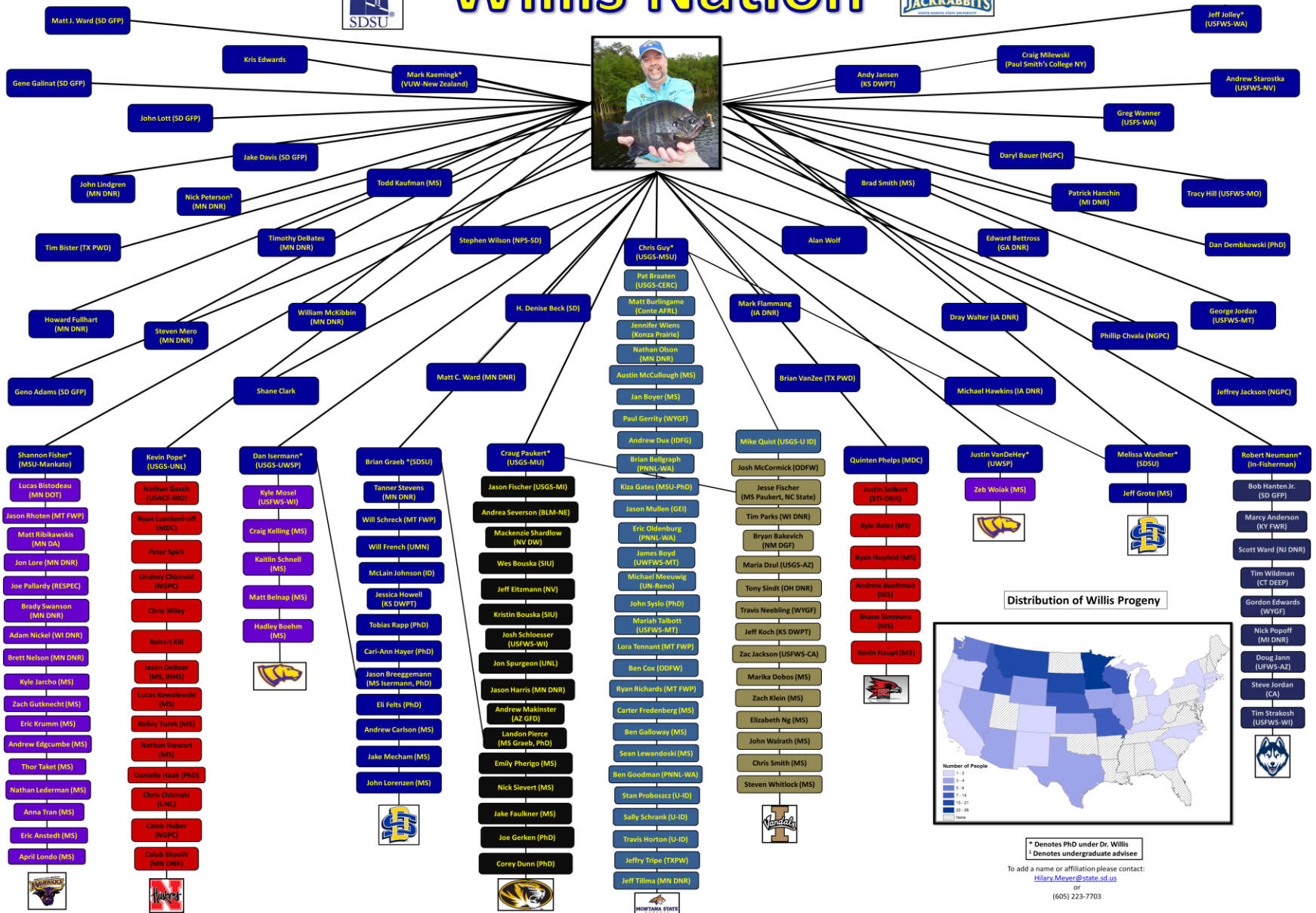
WHEREAS, Dave’s contributions to fisheries education, through his tireless work to produce fisheries textbooks and references books such as *Fisheries Techniques*, *Case Studies in Fisheries Conservation and Management*, *Standard Methods for Sampling North American Freshwater Fishes*, and *Small Impoundment Management in North America* has shaped the education of an entire generation of fisheries scientists, including in our own Division; and

WHEREAS, Dave’s gentle and caring nature made him an outstanding mentor, teacher, colleague, and friend to so many of us in the fisheries profession; now therefore

BE IT RESOLVED, that the membership of the Southern Division of the American Fisheries Society, assembled here in Charleston, South Carolina on this 24th day of January 2014, awards Dave Willis the first-ever Southern Division “Amazing Career” Award, in recognition of Dave’s exceptional personal and career contributions that have greatly benefited fisheries education, fisheries science, and fisheries management in our Division, throughout North America, and even throughout the world.



Willis Nation



* Denotes PhD under Dr. Willis
 † Denotes undergraduate advisee
 To add a name or affiliation please contact:
Hilary.Meyer@state.sd.us
 or
 (605) 223-7703

Meeting announcements

2013 American Fisheries Society Meeting Québec City, Québec 17-21 August, 2014



Fisheries and Oceans Canada, and the Northeastern Division, the Atlantic International Chapter and the Canadian Aquatic Resources Section of the American Fisheries Society (AFS), cordially invite you to attend the 144th Annual Meeting that will be held in Québec City from 17 to 21 August 2014.

Located on the bank of the St. Lawrence River, Québec is one of the world's most beautiful cities. The area's European appeal and North American lifestyle, complete with a storied history, thriving art scene, and vibrant French-speaking culture, make it truly one of a kind.

The "Joie de Vivre" and hospitality of Québec City's people is part of everyday life. Wherever you go, you'll be welcomed with open arms, and the proverbial warmth for which Québec City is famous.

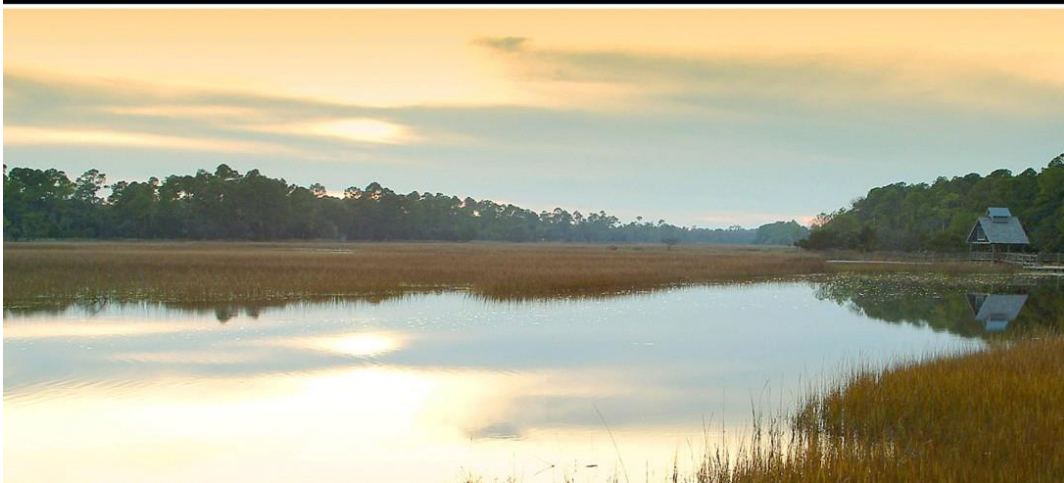
A hop, skip and jump from downtown, visitors are already in another world – there's a whole outdoor playground to discover. Talk about nirvana for sports enthusiasts! In town or in the great outdoors, a pair of walking shoes will take you far.



SOUTHERN DIVISION OF
THE AMERICAN FISHERIES SOCIETY



SAVANNAH 2015



January 28-February 1, 2015
Hyatt Regency Savannah
@SDAFS15

Save the date:

68th Annual SEAFWA Conference

Destin, Florida

October 19-22

seafwa.org/conferences/2014

Conservation: Managing for Resilience and Adaptability





Destin, Florida - October 19-22, 2014

The official CALL FOR PAPERS will be announced very soon. The Florida Fish and Wildlife Conservation Commission (FWC) is hosting the conference and the program committee plans to make this year's SEAFWA program the best in a long time. Fish conservation agency scientists and managers, professors and their students, and fisheries educators are encouraged to submit a paper for this year's SEAFWA meeting (<http://www.seafwa.org/conferences/2014/index.html>).

A significant change occurred last year for technical presentations; it is not mandatory for a manuscript to accompany a technical presentation. Publication in the SEAFWA Journal is strongly encouraged. However, an abstract will suffice for those that did not want to publish their work.

In addition to outstanding fisheries sessions, there are several other reasons for attending this year's SEAFWA conference:

1. The Sandestin Hilton is an outstanding venue:
<http://www3.hilton.com/en/hotels/florida/hilton-sandestin-beach-golf-resort-and-spa-DESHIHF/index.html?wt.srch=1>
2. The Destin beaches are among the most amazing beaches along the coast of Florida.
3. Vast and diverse fishing opportunities exist along this Gulf Coast area of Florida.
4. Numerous paddling areas exist for kayakers.
5. The socials will be excellent!
6. There will be a lot of friendly people to talk to at the meeting.

Looking forward to seeing everybody at the SEAFWA Conference!

Chapter and Committee Updates



Catfish Management Technical Committee
American Fisheries Society - Southern Division

The Catfish Management Technical Committee (CMTC) has been active planning its upcoming catfish ageing techniques workshop, which is scheduled to be held in conjunction with the 2014 Southern Division meeting in Charleston.

Catfish are a relatively difficult group to age, with practitioners often encountering difficulties in reading, preparation, and/or extraction of age structures. The appropriate use of a given technique or age structure is species, and age, dependent. Catfish aging protocols and techniques continue to be refined; and, it has been close to a decade since the last SD AFS catfish aging techniques workshop. Therefore, the CMTC will offer the upcoming workshop as a means to provide:

- a forum for demonstrating the various techniques for extraction and preparation of catfish age structures (otoliths and spines);
- an opportunity for hands-on experience in the use of these techniques;
- guidance in the appropriate use of age structures (otoliths v. spines); and,
- training in reading age structures.



Arkansas Chapter

The Arkansas Chapter would like to extend our gratitude to our Southern Division friends for helping make the 143rd Annual Meeting in Little Rock one to remember. When the dust cleared, final attendance was 1,085 fisheries professionals. Thank you to all who attended and we hope you enjoyed everything Little Rock had to offer.



Highlights from the 143rd Annual Meeting in Little Rock can be located at the link below.
<http://www.sdafs.org/arkafs/AFS/index.html>



SAVE THE DATE!!!

2014 Meeting of the Arkansas Chapter American Fisheries Society

February 26-28, 2014 (Wed. – Fri.)

Center for Nonprofits at St. Mary's – Auditorium
 1200 West Walnut Street
 Rogers, AR 72756

Directions – Directions to the Center for Nonprofits at St. Mary's can be found at the following link:
 Directions - Center for Nonprofits at St. Mary's
<http://www.rogerslowell.com/directory/results/map.aspx?listingid=9446>

Registration – Early registration deadline is February 8, 2014.

<http://www.sdafs.org/arkafs/AFS/index.html>

Lodging – A block of rooms has been reserved meeting attendees at the Candlewood Suites Hotel in Rogers/Bentonville. Candlewood Suites (877-834-3613) is offering a special room rate of \$69.00/night for a single or double room so please plan on staying here. **The deadline to make room reservations at the special rate is February 12, 2014.** After that date the special rate may not be honored and rooms may not be available. So be sure to make your reservations early. Room reservations can be made by visiting the following link:

Room Reservations for Arkansas Chapter - AFS

Additional information about the Candlewood Suites Hotel can be found at: www.cwsrogers.com.

Call for Abstracts – The annual meeting is a great opportunity to present recent projects and ongoing work. If you would like to present at the meeting, please submit abstracts via email to Matt Schroeder at mdschroeder@agfc.state.ar.us. **The deadline for abstract submittal is February 5, 2014.**

Florida chapter

The Florida Chapter held its 33rd annual meeting February 18th – 20st, 2013 at the Florida 4H-Camp in Ocala National Forest. There were 91 Chapter members in attendance, including 25 students from five different universities. Fourteen of the students applied for and received travel grants from the Chapter, which covered their meals and lodging at the meeting. We had 47 total presentations (35 oral, 12 poster) with students presenting 20 of those.

The symposium was titled 'Long-term monitoring: designs, problems, and results' and provided us with a lot of useful and interesting information on a wide variety of LTM programs that occur throughout Florida. Dan Gwinn (University of Florida) gave an excellent preliminary address 'How and why we monitor', speaking in broad terms about the diversity of LTM programs, how they are set up, and why they take place. We then had seven presenters (Mark Hoyer – UF/Florida LAKEWATCH, Howard Jelks – USGS/SESC, Kenneth Keene – NOAA/NMFS, Bob McMichael – FWC/FWRI, Bill Pine – UF, Eric Sawyers – FWC/FWRI, Joel Trexler – FIU) discuss in detail about the specific LTM programs that they involved with. LTM programs that were highlighted at this year's symposium included topics from Okaloosa darter monitoring to a pelagic long-line fishery observer program. At the end of the day there were a lot of comments about the quality of the talks, and hopefully this symposium opened up doors for more communication and collaboration and gave those who attended some useful information to use in the future. Thanks to all the symposium presenters for taking the time to make the symposium a success.

As usual, the highlights of our business meeting were the awards presentations. Each year, the Chapter gives two students a plaque and \$500 check through the Roger Rottmann Memorial Scholarship. This scholarship was established to recognize outstanding students enrolled in a Florida university or college, who are working toward a graduate degree related to fisheries sciences. The scholarship is in memory of Roger Rottman, one of the first fisheries biologists hired by the State of Florida University System. Recipients of this year's Rottmann Scholarship included Andrew Barbour (PhD Candidate, University of Florida) and Kyle Wilson (Masters Student, University of Florida).

Wes Porak (FWC) received the Rich Cailteux Award, which recognizes individuals for their career contributions to the fisheries profession, mentoring or young fisheries professionals, and involvement and leadership with the Florida Chapter. Wes has dedicated his 30 year career with FWC researching black bass to ensure their current and future conservation and has been a Florida Chapter member since 1982. He has gained local and national recognition for his accomplishments, which include service on many scientific technical advisory committees on black bass management, nearly 20 peer reviewed scientific publications, and an active role in all levels of the American Fisheries Society. Perhaps the most significant contribution to the conservation of black bass in Florida was the genetics program Wes developed to ensure the long-term wellbeing of our unique Florida strain of largemouth bass, including the creation of new importation laws to prevent movement of fish into and out of the state to ensure we do not lose this unique genetic strain of largemouth bass. Wes recently chaired a national black bass symposium titled "Black Bass Diversity-Multidisciplinary Science for Conservation" that was held at the 2013 SDAFS Annual Meeting in Nashville, TN. It was the honor and privilege of the chapter to name Wes as the 3rd recipient of the Rich Cailteux Award.

The Jack Dequine Best Student Paper Award went to Ross Boucek (FIU). Ross is a PhD student and gave an excellent presentation titled 'The power of the 1%: interactive impacts of extreme and episodic disturbances drive unexpected changes to mangrove fish communities'. Ross received a plaque and a \$100 check through the award.

Quite a few Florida Chapter members attended the 143rd Annual Meeting in Little Rock, Arkansas. It was a great meeting and the Arkansas Chapter did a really job of putting it all together. A few of our members were involved in presenting a successful bid to host the 147th Annual Meeting in Tampa, Florida. We were selected to host the meeting and look forward to the opportunity to show AFS members a great time in August 2017.

After 15 years of service, our webmaster Bob Wattendorf (FWC) has handed over the reins to somebody else. Bob has been the Florida Chapter's webmaster since our website first started in 1997-98 and has managed it to date. Bob has always been quick to respond when there were any requests to add or change anything. The Chapter appreciates all that Bob has done for us. Eric Sawyers (FWC) is our new webmaster and worked with Bob to make a smooth transition. Thanks Bob!

In addition, Florida Chapter's Student-subunit has undertaken a collaborative research project. The goal of this research aims at understanding the influence of high temperature on largemouth bass fitness across the state of Florida. More specifically, the students will test whether high temperatures have more severe impacts on largemouth bass in nutrient rich or nutrient poor water bodies, and whether these effects are more prominent in different size classes. A total of six students from three different Florida universities (University of Florida, Florida Atlantic University, and Florida International University) are working together to answer this question. So far, five different state and federal agencies have contributed data to these efforts. The final project will be submitted as a publication to an AFS journal, and will be presented by the student group at 2014 Florida Chapter meeting.

The Florida Chapter will hold its 33rd annual meeting February 18th – 20st, 2014 at the Florida 4H-Camp in Ocala National Forest. This year's symposium is titled 'Research and Management: Tag Team Titans' and will focus the link between the two counterparts and highlight the way research shapes management and vice versa. More information about our 33rd annual meeting can be found at our website <http://www.sdafs.org/flafs/> or our newsletter 'The ShellCracker'.

Louisiana chapter

The 34th annual meeting of the Louisiana Chapter of the American Fisheries Society (LA AFS) was held on May 30-31, 2013 on the LSU campus in Baton Rouge, LA. There were 136 registrants and a full meeting schedule that included 20 oral presentations and 16 posters. Seventeen (47%) of the presentations and posters were authored by students. Nine awards were presented to students based on their abstracts, presentations, and posters. We would also like to thank Dennis Riecke for attending our meeting as a representative of the Southern Division of the American Fisheries Society.

The theme of the 2013 meeting was "Fisheries Professionals: Lifelong Learning". In lieu of a keynote speaker, the EXCOM invited fisheries professionals from universities, state and federal agencies, and the private sector to participate in a plenary panel discussion. A moderator was tasked with asking the panel members various questions related to professionalism in fisheries and what advice they had to offer students as they prepare to enter the workforce. The plenary panel was very well received and students and professionals found the audience interaction to be rewarding.

A workshop was held immediately after our annual business meeting on May 31, 2013. The title of the workshop was "Green Fire: Aldo Leopold and a Land Ethic for Our Time". The film *Green Fire: Aldo Leopold and a Land Ethic for Our Time* was viewed and followed by a discussion moderated by Dr. Don Baltz and Dr. Mike Kaller from Louisiana State University (LSU). The workshop was attended by approximately 30 Chapter members, comprised mostly of students.

SDAFS Student Travel Scholarship

The LA AFS Chapter received 3 applications for the [SDAFS scholarship program](#) and awarded the scholarship to Molly Rybobich from Louisiana State University (LSU). The program is designed to help send student members to the Southern Division Spring Meeting each year. We hope that this program will encourage members to participate at the division level and help students network with professionals across the region.

Instream Flow Committee

In response to recent issues regarding off road vehicle use in Louisiana's scenic streams, the Instream Flow Committee prepared a [resolution 'Off-Road Vehicle Use in Louisiana Streams'](#). The resolution was approved by the Chapter in September 2013.

2014 Annual Meeting

The 35th annual meeting of the Louisiana Chapter of the American Fisheries Society will be held on May 29-30, 2014 in Thibodaux, LA. The program committee is currently developing a theme for the upcoming meeting. We are looking forward to another successful meeting and invite anyone that may be interested to join us! More information can be found on the [meeting page](#) of our website.

Student Awards

Abstract

First Place **Calvin Fisher, LSU**; Manipulation of the divalent ions Ca²⁺ and Mg²⁺ and their role in biochemical and molecular homeostasis in larval Gulf killifish (*Fundulus grandis*).

Second Place **Brett Miller, LSU**; Resource partitioning within the centrarchid assemblage of the Atchafalaya River Basin, Louisiana, based on stomach content and stable isotope analyses.

Third Place **Paige E. O'Malley, LSU**; A transitional feeding regime of live and artificial feeds for larval Gulf killifish (*Fundulus grandis*).

Poster

First Place **Josh Patterson, LSU**; Variation in reproductive and larval physiology of Gulf killifish (*Fundulus grandis*) fed diets deficient in essential *n*-3 fatty acids or supplemented with fish oil.

Second Place **Paige E. O'Malley, LSU**; A transitional feeding regime of live and artificial feeds for larval Gulf killifish (*Fundulus grandis*).

Third Place **Sierra Riccobono, UNO**; Effects of salinity on growth and behavior of invasive Rio Grande cichlids (*Herichthys cynoguttatus*) in Louisiana.

Oral Presentation

First Place **Brett Miller, LSU**; Resource partitioning within the centrarchid assemblage of the Atchafalaya River Basin, Louisiana, based on stomach content and stable isotope analyses.

Second Place **Justin Leonhardt, LSU**; An industry in decline: Finding the optimal oyster stock and ideal salinity conditions for intensifying commercial production of eastern oysters (*Crassostrea virginica*) in Louisiana.

Third Place **A. Nikki Anderson, LSU**; Alternative bait for the Louisiana commercial blue crab (*Callinectes sapidus*) fishery.

Member Contributions

- Dr. Jill Jenkins, former Louisiana AFS Chapter President, with the United States Geological Survey has recently authored\co-authored several papers on a variety of topics:

Jenkins, J.A., H.M. Olivier, R.O. Draugelis-Dale, B.E. Eilts, L. Torres, R. Patiño, E. Nilsen, S.L. Goodbred. Online publication 31-OCT-2013. Assessing reproductive and endocrine parameters in male largescale

suckers (*Catostomas macrocheilus*) along a contaminant gradient in the lower Columbia River, USA. Science of the Total Environment, special issue <http://dx.doi.org/10.1016/j.scitotenv.2013.09.097>. Chapman, D.C., J.J. Davis, J.A. Jenkins, P.M. Kocovsky, J.G. Miner, J. Farver, and P.R. Jackson. 2013. Journal of Great Lakes Research. First evidence of grass carp recruitment in the Great Lakes Basin. IP 046145. <http://dx.doi.org/10.1016/j.jglr.2013.09.019>

Olivier, H.M. and J. A. Jenkins. In Press. Proper handling of animal tissues from the field to the laboratory supports reliable biomarker endpoints. In Impacts of oil spill disasters on North American marine fisheries and their habitats edited by J. Brian Alford, Christopher C. Green, and Mark S. Peterson. CRC Press. Boca Raton, FL

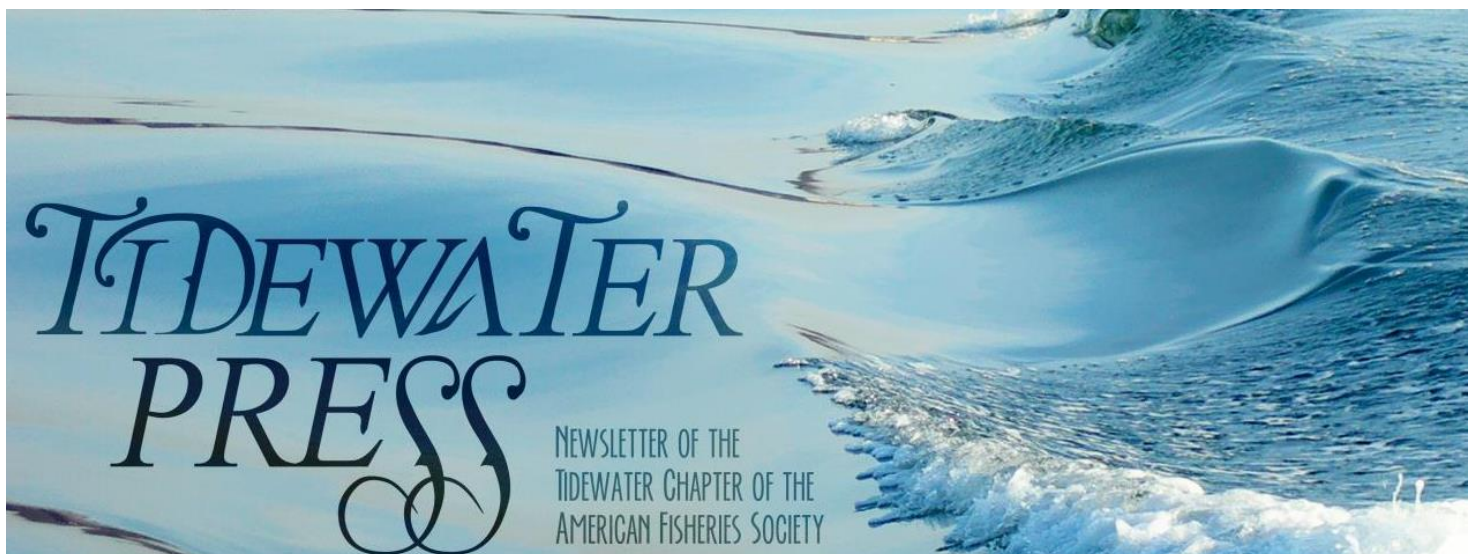
- Ashley Melancon, graduate research assistant at Louisiana State University, was recently featured in the New Orleans Times Picayune regarding her research project. Ashley is currently tracking speckled trout movement in Lake Pontchartrain. Read more about Ashley's research project at the links below:

http://www.nola.com/outdoors/index.ssf/2013/10/telemetry_study_shows_autumn_s.html

http://www.nola.com/outdoors/index.ssf/2013/01/lake_pontchartrain_study_track.html

Chapter Website

The Louisiana Chapter is making an effort to acknowledge the hard work of our members! We developed a "[Featured Professional](#)" and "[Featured Student](#)" section on our website. Periodically, a new professional and student will be asked to submit a biography and photo to be displayed on the chapter website. We hope this will provide another avenue for professionals and students to share their work and to promote networking among members.



Click here for the Tidewater chapter newsletter

Virginia chapter

Virginia is for Fish Lovers was the theme of the 2014 Annual Meeting of the Virginia Chapter Meeting, held in Fredericksburg, February 11-13. Despite the arrival of winter storm Pax, attendance was good for technical sessions, business meeting, and two continuing education workshops. Dr. Colin Shea and Greg Anderson taught Occupancy Modeling and Dr. David Crosby taught Fish Health. Technical sessions provided a mix of updates on species of concern, including redbelly dace *Chrosomus*, crayfish, Atlantic sturgeon, freshwater mussels, American shad, and Roanoke Logperch, as well as progress for road-crossing, acid-sensitive streams, liming, environmental flow, Walleye, and safety management.



Chapter Awards were presented to Ned Yost, Citizen Conservationist, and John Copeland, Surber Professional Fisheries Biologist.

Best student paper awards were presented to Bonnie Jean Myers, Virginia Tech, and Lindsey House, James Madison University. Robert Ross Scholarships were awarded to Brandon Peoples, Virginia Tech, and Kristen Anstead, Old Dominion University, and Robert E. Jenkins scholarships were awarded to Jessica Dodds, Virginia Tech, and Casey Pehrsons, George Mason University,



Dr. Colin Shea, Tennessee Tech University, introduces the occupancy estimation and modeling workshop.



Mike Isel, Dawn Kirk, and John Copeland received Certificates of Appreciation for their service as officers. New officers of the chapter are Don Orth, President, Eric Hallerman, President-Elect, John Harris, Treasurer, and Christine May, Secretary.



Dr David Crosby, Virginia State University, teaches classroom session of Fish Health.

Contributed Articles

Regional brook trout analysis moving forward

Than Hitt, USGS Leetown Science Center
Jeb Wofford, National Park Service, Shenandoah National Park

When we started looking at long-term brook trout monitoring data from Shenandoah National Park, we quickly saw that annual fluctuations were highly correlated among sites, especially for YOY numbers. And, managers had historically observed that brook trout reproduction was frequently uniformly poor or uniformly good, even at the state level. This led us to ask how far these spatial patterns in reproduction extended and what environmental factors can explain it. With the help of SDAFS Trout Technical Committee members, we've assembled a large dataset to investigate this question across the species' southern range (Pennsylvania to Georgia). To our knowledge, this is the first look at temporal change in brook trout population dynamics across such a large area.

The combined dataset includes more than 250,000 individual fish records from over 1000 sites and 5000 sampling events from the late 1970s to 2013. Many individuals and agencies have contributed to this effort in addition to Shenandoah National Park, including the Pennsylvania Fish and Boat Commission, Maryland Department of Natural Resources, Virginia Department of Game and Inland Fisheries, Great Smoky Mountains National Park, Tennessee Wildlife Resources Agency, Georgia Department of Natural Resources, and the South Carolina Department of Natural Resources.



We're moving forward on geostatistical and population modeling applications with the regional dataset. From initial population modeling work in Shenandoah NP (manuscript currently in preparation with Yoichiro Kanno [Clemson University] as lead author), we've seen that seasonal flows and air temperatures are important predictors of YOY and adult abundance across years. For instance, low fall flows and high winter flows were most deleterious for YOY abundances in the subsequent summer. To expand this analysis across the southern range of brook trout, we are using PRISM monthly climate data across the period of record. Given the strong seasonal patterns we're seeing in Shenandoah, it will be interesting to see whether or not these predictors are important elsewhere and at what spatial scales trout reproductive success is correlated.

This retrospective analysis should help us understand how climate data can be used to predict brook trout population responses – as well as the limits of such models. Simply put, if we can't explain past population dynamics from climate history, we won't be able to forecast future changes with much confidence. But given the initial patterns seen in Shenandoah National Park long-term data, we are cautiously optimistic for the regional analysis. For more information or to get involved, contact Than Hitt <nhitt@usgs.gov> or Jeb Wofford <jeb_wofford@nps.gov>.

Miscellaneous Announcements

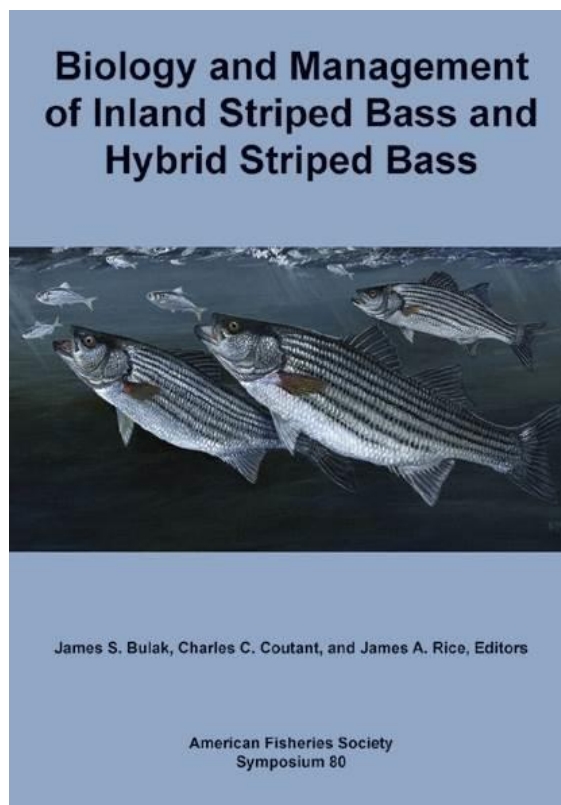
New book available!

Biology and Management of Inland Striped Bass and Hybrid Striped Bass: AFS Symposium 80

Biology and Management of Inland Striped Bass and Hybrid Striped Bass provides a first-ever, comprehensive overview of the biology and management of striped bass and hybrid striped bass in the inland waters of the United States. This 588-page, hard-cover book recently published by AFS is a product of the Southern Division's Striped Bass Technical Committee and was co-edited by Division members James Bulak, Charles Coutant and James Rice. The book's 34 chapters are divided into nine major sections: History, Habitat, Growth and Condition, Population and Harvest Evaluation, Stocking Evaluations, Natural Reproduction, Harvest Regulations, Conflicts, and Economics. A concluding chapter discusses challenges and opportunities currently facing these fisheries. The book also has a comprehensive Index.

This compendium will serve as a single source reference for those who manage or are interested in inland striped bass or hybrid striped bass fisheries. Fishery managers and students will benefit from this up-to-date overview of priority topics and techniques. Serious anglers will benefit from the extensive information on the biology and behavior of these popular sport fishes.

To see the complete table of contents, or to order your copy, go to: <http://fisheries.org/shop/54080c>. The book is \$79 for non-members, \$55 for AFS members (member discount taken at checkout).



Blackside dace special issue

The journal *Southeastern Naturalist* published a special issue in August 2013 on *Chrosomus cumberlandensis* (Blackside Dace), a federally listed stream fish that occurs in Kentucky, Tennessee and Virginia. The volume contains 12 research articles by 28 authors plus a foreword by Wayne Starnes. AFS folks can request pdf reprints of selected articles or print copies of the whole volume from Hayden Mattingly (HMattingly@tntech.edu). The table of contents and first pages of each article can be found at the journal's website: <http://www.eaglehill.us/programs/journals/sena/southeastern-naturalist.shtml>

**Ecology and Conservation of
the Threatened Blackside Dace,
*Chrosomus cumberlandensis***



Southeastern Naturalist, Volume 12, Special Issue 4, 2013



U.S. Fish & Wildlife Service

National Conservation Training Center

Training Announcement

Conservation Biology of Freshwater Mussels CSP 1101

Click to watch a
video training
announcement



Course Description

This is an introductory course on the biology and ecology of freshwater mussels and the conservation issues facing this highly endangered group of animals. Topics to be covered include anatomy, physiology, life history, health, ecosystem services, mussels as biomonitors, conservation status, population impacts, conservation measures (relocation, propagation, conservation genetics), legal issues (permits and the ESA, Section 7 consultations, critical habitat) and field techniques (survey techniques, sampling techniques, habitat assessment). This course will address key characters for identification of freshwater mussels and will provide opportunities in the laboratory to practice with dichotomous keys, however due to time constraints and the regional nature of mussel assemblages; this is NOT a mussel identification course.



Matthew Patterson (USFWS)

Objectives

Upon completion of this course, you will be able to identify:

- ✓ why mussels matter to FWS
- ✓ why so many mussel species are endangered
- ✓ the skills and tools available for mussel conservation
- ✓ the legal issues related to mussel conservation
- ✓ the genetic concerns associated with mussel conservation

Date

June 16 – June 20, 2014

Location

NCTC, Shepherdstown, WV

Instructors

Dr. Chris Barnhart and Heidi Dunn

Who Should Attend

Anyone who works with freshwater mussels (biologists environmental educators, etc.) but has little formal knowledge of their biology.

Course Length

4.5 days

College Credit

2 semester hours

Tuition

Tuition for FWS, NPS, and BLM is prepaid. Tuition is \$1,195.00 for participants from other agencies and organizations.

To Register

DOI employees: Log In to DOI Learn, enter the course title in the search box, click scheduled classes, click submit request.

Non-DOI employees: Contact Marilyn Williams for a paper application. Marilyn Williams, 304/876-7940
marilyn_williams@fws.gov

Course Contact

Matthew Patterson, 304/876-7473
matthew_patterson@fws.gov

"Mussels are economically and ecologically important. However, more than 70 species of mussels are federally listed as threatened or endangered and several others are candidates for protected status." Dr. Barnhart



U.S. Fish & Wildlife Service

National Conservation Training Center

Training Announcement

Freshwater Mussel Propagation for Restoration

CSP 1102

Course Description

Freshwater Mussel Propagation for Restoration is an introductory course designed to explore all culture activities associated with freshwater mussels. Participants will explore the latest culture techniques as they follow freshwater mussels through their entire life cycle in a culture facility, from the collection of gravid females to stocking cultured juvenile freshwater mussels. Following a basic introduction on mussel biology and the goals of mussel propagation, the course will cover the basics of building a culture facility, collecting and maintaining brood stock, collecting host species, infesting host species with larval mussels, collecting and culturing juvenile mussels, and releasing juveniles to the wild.



Matthew Patterson (USFWS)

Date

September 8 – September 12, 2014

Location

NCTC, Shepherdstown, WV

Who Should Attend

Biologists interested in freshwater mussel biology and freshwater mussel culture techniques.

Course Length

5 days

College Credit

2 semester hours

Tuition

Tuition for FWS, NPS, and BLM is prepaid. Tuition is \$1,195.00 for participants from other agencies and organizations.

To Register

DOI employees: Log In to DOI Learn, enter the course title in the search box, click scheduled classes, click submit request.

Non-DOI employees: Contact Marilyn Williams for a paper application. Marilyn Williams, 304/876-7940
marilyn_williams@fws.gov

Course Contact

Matthew Patterson, 304/876-7473
matthew_patterson@fws.gov

Objectives

Upon completion of this course, you will be able to:

- ✓ describe the internal and external anatomy of a freshwater mussel
- ✓ design a freshwater mussel culture facility
- ✓ collect and maintain freshwater mussel brood stock in captivity
- ✓ collect and maintain host species in captivity
- ✓ harvest freshwater mussel larvae and inoculate host species
- ✓ collect newly metamorphosed juvenile mussels and culture them for release
- ✓ describe the advantages and disadvantages of the various techniques, equipment, and culture units used in freshwater mussel propagation throughout the United States.
- ✓ release and monitor cultured juvenile freshwater mussels
- ✓ maintain accurate records and publish results



U.S. Fish & Wildlife Service

National Conservation Training Center

Training Announcement

Introduction to Fish Health

CSP 1150

Course Description

This course is a beginning level, introductory program that familiarizes participants with the signs, causes, control and prevention of infectious and noninfectious fish diseases.



Matthew Patterson (USFWS)

Objectives

Upon completion of this course, you will be able to identify:

- ✓ Recognize and identify the external or gross signs of the more common fish diseases and parasites;
- ✓ Stain slides for preliminary identification of common disease organisms;
- ✓ Isolate and culture some disease organisms;
- ✓ Calculate dosages or treatment levels;
- ✓ Properly care for and package moribund or dead fish as specimens for shipment to diagnostic laboratories; and
- ✓ Describe the causes and effects of fish diseases.

Two courses
offered in 2014

Dates

January 27 – January 31, 2014
February 3 – February 7, 2014

Location

La Crosse Fish Health Center

Who Should Attend

This course is designed for fisheries biologists, hatchery managers, fish health biologist, or wildlife biologist interested in fish health techniques.

Course Length

4.5 days

College Credit

2 semester hours

Tuition

Tuition for FWS, NPS, and BLM is prepaid. Tuition is \$1,195.00 for participants from other agencies and organizations.

To Register

DOI employees: Log In to DOI Learn, enter the course title in the search box, click scheduled classes, click submit request.

Non-DOI employees: Contact Marilyn Williams for a paper application.

Marilyn Williams, 304/876-7940
marilyn_williams@fws.gov

Registration Deadline

Please apply no later than December 16, 2013. If the minimum number of applications has been received at that time, additional applications will be accepted as space is available. If the course is full you will be placed on a waiting list.

Course Contacts

Corey Puzach, 608-783-8445
corey_puzach@fws.gov

Matthew Patterson, 304/876-7473
matthew_patterson@fws.gov



U.S. Fish & Wildlife Service

National Conservation Training Center

Training Announcement

Fish Physiology

CSP 1353

Course Description

Fish Physiology is the study of the anatomy and physiology of fish and how fish adapt to environmental conditions. After an introductory overview to fish physiology, emphasis will be placed on the major physiological systems including sensory, digestive, circulatory, nervous and endocrine. Other topics covered include osmoregulation, swimming/movement, reproduction, development, populations and human impact on aquatic environments. Laboratory exercises include bleeding fish and analyzing blood for hematocrit, glucose and chloride. The goal of this training is to develop and enable participants to effectively use fish physiology information in research and management decisions.



Matthew Patterson (USFWS)

Objectives

Upon completion of this course, you will be able to identify:

- ✓ how fish see, hear and sense their environment;
- ✓ prey detection, predator avoidance and feeding behaviors;
- ✓ fish vascular system and respiration;
- ✓ the digestion system and absorption of nutrients;
- ✓ osmotic and ionic regulation of freshwater and seawater fish;
- ✓ body form, swimming and how fish move through water;
- ✓ reproduction, spawning and environmental controls;
- ✓ human impacts on aquatic environments
- ✓ proper care and shipping of moribund or dead fish to diagnostic laboratories

Date

December 9 – December 13, 2013

Location

NCTC

Instructor

Pat Mazik, WVU

Who Should Attend

Biologists with an interest in fish physiology.

Course Length

4.5 days

College Credit

2 semester hours

Tuition

Tuition for FWS, NPS, and BLM is prepaid.
Tuition is \$1,195.00 for participants from other agencies and organizations.

To Register

DOI employees: Log In to DOI Learn, enter the course title in the search box, click scheduled classes, click submit request.

Non-DOI employees: Contact Marilyn Williams for a paper application.
Marilyn Williams, 304/876-7940

marilyn_williams@fws.gov

Course Contact

Matthew Patterson, 304/876-7473

matthew_patterson@fws.gov

Congratulations to Brian Bosworth!

Brian Bosworth won the 2013 North American Journal of Aquaculture Best Paper Award. Brian is at the USDA/ARS Warmwater Aquaculture Research Unit in Stoneville MS.

Bosworth, B.G. 2012. Effects of winter feeding on growth body composition and processing traits of co-cultured blue catfish *Ictalurus furcatus* channel catfish *I. punctatus* and channel catfish x blue catfish hybrids. North American Journal of Aquaculture. 74(4):553-559.



Dr. Don Orth recognized as Virginia Tech's Teacher of the Week

The Center for Instructional Development and Educational Research (CIDER) recently recognized Donald Orth, professor of Fisheries and Wildlife Conservation, for using a variety of teaching strategies that focus on authentic activities designed to encourage the development of self-regulated learning strategies in his students.

Donald Orth currently teaches Ichthyology, Stream Habitat Management, and First-Year Experience in Natural Resources and Environment. He frequently provides guest lessons for students in Fisheries Techniques and Principles of Fisheries and Wildlife Management.

Orth's teaching vision describes his desire to nurture critical thinking skills in his students; the importance of mistake-making, idea sharing, collaboration, personal meaning-making, and providing opportunity for students to master concepts (rather than only cover content) in the learning process; and, the necessity and utility of formative and summative assessment of learning in order to track student learning and design instruction to meet their unique needs.

Orth achieves these objectives through creating a safe learning environment in which authentic learning experiences and collaboration among peers is vital. He explained in his teaching vision, "My teaching role varies from facilitator, organizer, expert, motivator, coach, questioner, and gatekeeper." He believes in his students' abilities to succeed, and also that he can learn from them just as they learn from him.

Orth received recognition as Outstanding Teacher from the College of Natural Resources and Environment in 2013, as well as previous awards as Outstanding Faculty and Certificate of Teaching Excellence.

His students are enthusiastic about his teaching excellence, and provided many positive comments on recent SPOT surveys. Speaking of his enthusiasm for education, and the interest he sparks in his students, several students noted: "I am very interested in fisheries as a result of this class!! He supplied a large amount of study aids that would help us to understand the material more" (an Ichthyology student, spring 2012); "Tons of examples, application, practicality, interesting lectures, and I could tell that he was passionate about not only the subject matter but the performance of his class" (an Ichthyology student, spring 2012); "He made information relevant and interesting" (an Ichthyology student, spring 2012); "Great class. I learned a lot" (an Ichthyology student, spring 2012); "I'm pleased to add Dr. Orth to a short list of very favorite professors at Virginia Tech" (an Ichthyology student, spring 2012); "Helpful to have hands on learning in lab. He made class very interesting and enjoyable, had artists come to class, [and] helped [me] realize the need for proper fish identification" (an Ichthyology student, spring 2013); and, "Ichthyology challenges a student to learn material and retain material in ways much different than your ordinary lecture class. Being a great ichthyologist takes years and years of studying species. I am glad I took this class because it made me explore new study techniques. I do not plan to stop studying ichthyology after this class" (an Ichthyology student, spring 2012); "Dr. Orth was passionate about the subject" (a Stream Habitat Management student, fall 2012).



Students also described Orth's teaching and assessment practices: "[Dr. Orth] had narrated PowerPoint's of the lectures online in case we missed class (an Ichthyology student, spring 2012); "[He] gave lots of feedback on assignments" (an Ichthyology student, spring 2012); "Regular quizzing schedules really made me keep up with the work which was good!" (an Ichthyology student, spring 2012); "[Dr. Orth] communicated information in an easy to understand manner" (an Ichthyology student, spring 2013); "Guided class discussions [and] some of the assignments given really made all the material come together" (a Stream Habitat Management student, fall 2012); "Prof. Orth provided us with the most relevant and new material on stream habitat management. We then participated as a class with discussions on the material. This class was not biased and looked at both sides of issues, also focusing on the reality of problems and solutions" (a Stream Habitat Management student, fall 2012); "Dr. Orth encouraged students to reflect upon projects and activities so that they would learn more from those activities and gain inquiry skills" (a first year experience student); "[Dr. Orth provided] a lot of one on one assistance" (a first year experience student); [He was] a really good teacher, and did well trying to get everyone to interact and participate. I was mostly helped by the ways he taught to plan out your college path" (a first year experience student); and "[Dr. Orth] related the new material to our own beliefs" (a first year experience student).

C.W. Watson Award

Nominations are being sought for the 2014 Clarence W. Watson Award. This annual award will be presented at the Southeastern Association of Fish and Wildlife Agencies Annual Conference in Destin, Florida, October 19-22, 2014. The Clarence W. Watson Award is the most prestigious award given in the Southeast and is presented to the career individual who, in the opinion of the Award Committee, has made the greatest contribution to wildlife or fish conservation during the previous year or years. Consideration includes research, administration, law enforcement, I&E, wildlife management, fish management, teachers, and students. Preference is given to nominees in the Southeast. The award is a mounted bronze plaque presented jointly by the Southern Division of the American Fisheries Society, the Southeastern Section of the Wildlife Society, and the Southeastern Association of Fish and Wildlife Agencies. All Southeastern fish and wildlife conservationists and other interested persons are encouraged to nominate worthy candidates. Nominations should be submitted in the format shown below and should include complete information on the candidate's background; i.e., education, training, noteworthy accomplishments, and particularly, the achievement(s) for which the nomination is being made. The nomination should include, but not be limited to, a description of the accomplishment(s), application in the state and region concerned, time involved, and the amount of aid received from associates. Furnish as much information as possible to aid the committee in making the selection. A previously unselected nominee may be resubmitted each year.

NOMINATION FORMAT**I. Background Information**

- A. Name
- B. Birthdate
- C. Education
- D. Employment History

II. Accomplishment(s)* and application of accomplishment(s) upon which the Award should be made

- A. Problem or opportunity with which nominee was involved.
- B. Action nominee took to solve problem or capitalize on opportunity.
- C. Results (accomplishments) of nominee's actions.

*The C.W. Watson Award may be given for accomplishing a single item or a series of different non-related items. But the award is given to a nominee who has contributed the most to any of the appropriate areas of fish and wildlife conservation. Emphasis is on contribution, not tenure. Those making nominations are requested to insure that they explain clearly what was accomplished and how it contributed.

Selection will be based on specific accomplishment(s) and other information included in the letter of nomination. Nominations should be sent to: **J. Wesley Neal**, Department of Wildlife, Fisheries & Aquaculture, Box 9690, Mississippi State, MS 39762-9690; jneal@cfr.msstate.edu; 662-325-8363 as soon as possible but no later than August 15, 2013.