

INSIDE THIS ISSUE

[President's Message](#)

[2014 NCAFS Annual Meeting](#)

[Nominations Committee and Ballot](#)

[Treasurer Report](#)

[Call for Chapter Award Nominations](#)

[Education and Outreach Committee](#)

[North Carolina's Imperiled Fish Fauna, Part XIII](#)

[Spotlight on Students and Young Professionals](#)

[Interesting Fish News from around North Carolina](#)

[Meetings of Interest](#)

[Valuable Links](#)

**President's Message**

The end of 2013 is fast approaching and reflecting back upon all that we have accomplished and experienced on the work and home fronts is always a good thing to do. I think that it makes us appreciative of the successes, failures, and time that we have shared together as friends, colleagues, and family. It is also a good time to take stock of everything that we would like to accomplish in the New Year. As fishery professionals, I believe that we have a lot yet to do to ensure the protection, conservation, and wise stewardship of our aquatic natural resources. The pressures, both internal and external to our agencies and organizations will continue to mount, but we must remain steadfast and vigilant in producing the best science possible with the hope that it will be used appropriately by our policy and decision makers. Staying informed and educated on the latest information and issues is the best way to be prepared. To that end, I encourage us all to attend and participate in the upcoming scientific meetings of our choosing, especially our Chapter and Division meetings. The 2014 AFS Southern Division Spring Meeting will be in Charleston, South Carolina from January 22-26, 2014 and the 2014 NC AFS Annual Chapter Meeting will be February 18-19, 2014 at the Millennium Hotel in Durham, North Carolina. Please see the information later in the newsletter about abstract submission, registration, and lodging for the 2014 Chapter Meeting. I look forward to seeing everyone in 2014!!!

Greg Cope

**2014 NCAFS Annual Meeting of the North Carolina Chapter of the  
American Fisheries Society**

**The Millenium Hotel  
Durham, NC – February 18-19, 2014**

**CALL FOR ABSTRACTS – DUE JANUARY 21, 2014**



We invite you to participate in the 2014 NC AFS Chapter Meeting on February 18-19, 2014 in Durham, North Carolina. Our host will be the [Millenium Hotel](#), located at 2800 Campus Walk Avenue, Durham, NC, 27705-4479. Mark your calendar today! Contact Brena Jones at [brena.jones@ncwildlife.org](mailto:brena.jones@ncwildlife.org) or call (919) 707-0369 if you have questions or if you are interested in assisting in meeting execution.

Our location is in close proximity to Duke University and historic attractions in downtown Durham, such as the [American Tobacco Campus](#) and [Brightleaf Square](#). The hotel offers a \$5/day shuttle for unlimited local use. There are a myriad of additional quick dining options nearby.

**Second Call for Abstracts:**

Student and professional members are invited to submit abstracts for oral presentation at the Annual Meeting. Topics addressing any aspect of fisheries and related aquatic sciences are welcomed, including, but not limited to, management, research, conservation, outreach and education. Presentations will be limited to 20 minutes (including a question and answer period). The abstract submission deadline for the 2014 Meeting is [January 21, 2014](#). Submit your abstract by e-mail to Brena Jones at [brena.jones@ncwildlife.org](mailto:brena.jones@ncwildlife.org).

Abstracts are limited to 250 words. Abstract title should appear in all caps and bold, and be followed by the author name(s), and affiliation(s). Please underline the name of the presenter and include contact information with email and phone number. If the presenter is a student, please note this on the submission. Abstracts should be written in Word utilizing Arial 11 point font. Abstracts should include clearly stated objectives,

brief methods, general results, and the basic conclusion. Please list several keywords at the end for future search capability. Examples from past meetings can be found on the chapter website, <http://www.sdafs.org/ncafs/index.html>

Judges will be scoring all presentations for awards in both the professional and student categories.

**Lodging and Reservations:**

Sleeping room rates are \$65.90 plus 9.75% sales tax (if applicable) per night for a standard room for up to four people. A block of rooms has been reserved for the nights of February 17 and 18. **To receive the special group rate, please reserve your room by Friday, February 14, 2014 and be sure to mention that you are attending the NC Chapter American Fisheries Society meeting. The reservations can ONLY be made by calling the hotel directly at 800-633-5379.**

**Continuing Education Course:**

We are excited to announce that the workshop for the 2014 annual meeting will be an introduction to the use of side-scan sonar for monitoring fish habitat, using a low-cost sonar (Humminbird SI) and software (SonarTRX) taught by Dr. Joe Hightower from N.C. State. Emphasis will be on field techniques for getting good quality side-scan images, then doing basic processing of the images for use in analysis and reports (this is a simpler approach than Kaeser and Litts have demonstrated in past SDAFS workshops). No background in side-scan sonar use or image processing is required. We hope that this workshop will have an infield component, but we will release more details closer to meeting time. Hope to see you there!!

Please contact Education and Outreach Committee Co-Chair and course organizer, Jessica Baumann at (919) 304-2720 or [jessica.baumann@ncwildlife.org](mailto:jessica.baumann@ncwildlife.org) with questions or to get additional information.

**Meeting Registration:**

Online or mail-in registration for the meeting and continuing education course will be available on the Chapter web site. Go to <http://www.sdafs.org/ncafs/content.html?contentName=AnnualMeeting> for additional information and to register for the meeting.

Join us for another excellent meeting this year in Durham!  
Brena

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**Nominations Committee and Ballot**

The Nominations Committee is pleased to present the 2014 NCAFS ballot for President-Elect. Chapter members running for President-Elect are Kim Sparks (NCWRC) and

Reid Garrett (Duke Energy). Please take a moment to evaluate the candidate sketches and cast your vote on the electronic ballot.

***Kim Sparks (NCWRC)***



Kim Sparks is a Business and Technology Analyst at the North Carolina Wildlife Commission, where she focuses on web-based applications to assist with environmental data management. This includes data entry and reporting applications for fish stocking, creel surveys, and stock assessments. Kim also has an interest in data visualization, and has worked to develop numerous reports, charts and maps to make data available for internal use, as well as to the public.

She received her B.S. in Natural Resources from Cornell University in 1995 and her M.S. in Zoology from North Carolina State University in 1998. Kim served as the Secretary/Treasurer for NC AFS from 2002 - 2004, and taught continuing education workshops at the 2002 and 2010 Spring Meetings. She served on the Newsletter Committee from 2004 - 2012, and is currently serving as the web master for the NC AFS website. Kim is also a member of the North Carolina ArcGIS User's Group and is a certified Geographic Information Systems Professional (GISP).

**Reid Garrett (Duke Energy)**



Reid Garrett is a Lead Scientist with Duke Energy's Water Resources and has been with the Company since 1982. At Duke, Reid has primary responsibilities as the overall site lead of environmental programs and issues, particularly fisheries, for four major power plants in North and South Carolina. Other areas of work responsibilities include aquatic toxicology, contaminants, water quality, 3-D hydrodynamic modeling, and thermal issues. He is the Laboratory Supervisor of the Duke Energy Progress Certified Biological Laboratory in North Carolina and Laboratory Director of the Duke Energy Progress Certified Environmental Laboratory in South Carolina for biological surveys.

Reid graduated from Troy University in 1977 with a B.S. degree in Marine Biology followed by an M.S. degree from the Auburn University Department of Fisheries and Allied Aquacultures in 1983. He has been an active member of AFS since the 1980s and of the NCAFS since it was formed. Away from work, Reid is an avid aviation enthusiast. He owns a single engine Piper Comanche and uses it for fun trips and visiting family back in Alabama as often as he can.

[CLICK HERE TO ACCESS THE 2014 NCAFS BALLOT](#)

For those chapter members who vote, your name will be entered in a drawing for a 2014 AFS Parent Society membership (a value of \$80).

*Submitted by Chris Wood*

## Treasury Report as of 12/29/2013

Account	Current Balance
Edward Jones Account 1	\$32,826.85
Edward Jones Account 2	\$37,303.12
Wells-Fargo Checking	\$1,891.26
Wells-Fargo Savings	\$2,915.53

### Recent Account Activity (Wells-Fargo Checking)

Date	Deposits	Withdrawals	Description
10/8/2013		\$150.00	Chapter Insurance
11/7/2013		\$2,500.00	2014 Meeting Payment
12/20/2013		\$2,500.00	2014 Meeting Payment
12/23/2013	\$1500.00		2014 Meeting Sponsorship from Duke Energy

*Submitted by Todd Ewing, Secretary-Treasurer*

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## Call for Chapter Award Nominations

The Chapter presents two awards on an as-warranted basis to recognize outstanding contributions by both chapter members and others. The **Distinguished Service Award** recognizes Chapter members who have distinguished themselves by service to the Chapter, the American Fisheries Society, or the fisheries profession. The **Fred A. Harris Fisheries Conservation Award** recognizes non-Chapter members who have distinguished themselves by service or commitment to the Chapter or the fisheries and aquatic resources of North Carolina.

The Awards Committee is soliciting nominations from the membership for both of these awards for 2014. If you are aware of a deserving individual or organization, please nominate them! Nomination letters should be no more than two pages long and provide specific information on the accomplishments of the candidates and why they qualify the candidate for the award. Qualifications for the Distinguished Service Award should extend beyond simply doing an outstanding job on regular chapter duties (e.g., officer or committee member responsibilities) and be based primarily on extraordinary efforts or new initiatives.

Please submit nominations to John Crutchfield at [John.Crutchfield@duke-energy.com](mailto:John.Crutchfield@duke-energy.com), Duke Energy, 526 South Church Street, P.O. Box 1006, Mail Code EC12K, Charlotte, NC 28201-1006. **Nominations will be accepted until Friday, January 17, 2014.** Any questions, call John at 980-373-2288.

The chosen recipients will receive the awards at the 2014 NCAFS meeting to be held in Durham, NC, on February 18-19, 2014.

*Submitted by John Crutchfield*

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## Education and Outreach Committee Report

We are proud to say that the podcasts from the 2013 NCAFS meeting are up and running!! Just head to the NCAFS website and click on Past Meetings to find a link for the Program, Abstracts, and Podcasts. We want to thank Kim Sparks for helping get these online and live!!

Please contact Education and Outreach Committee Co-Chair and course organizer, Jessica Baumann at (919) 304-2720 or [jessica.baumann@ncwildlife.org](mailto:jessica.baumann@ncwildlife.org) with questions or to get additional information.

*Submitted by Jessica Baumann*

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## North Carolina's Imperiled Fish Fauna, Part XIII

**Submitted by Bryn H. Tracy, Wayne C. Starnes, and Fred C. (Fritz) Rohde on behalf of the NCWRC's Scientific Council of Fishes**

As mentioned in the Chapter's 2010-2013 newsletters, there are approximately 215 indigenous, described, and undescribed species of strictly freshwater fishes in North Carolina. Of these, 26% are state or federally listed: Endangered (17), Threatened (17), or Special Concern (22) (Harris et al. 2010). It is the responsibility of the 15 member Scientific Council on Freshwater Fishes to submit its recommendations to the Nongame Advisory Committee of the North Carolina Wildlife Resources Commission (NCWRC) if changes in imperilment classifications for any species are warranted. To communicate our findings with the chapter membership, this is the 13<sup>th</sup> of 16 planned articles on the species that the Council believes have become more imperiled since the last listing in 2006. Thus acquainted, it is hoped that chapter members can serve as additional "eyes and ears" to expand our vigilance for these rare or highly localized fishes.

**"Lake Phelps" Killifish, *Fundulus* sp. cf. *diaphanus* (an undescribed taxon)  
Current Status: Special Concern, Proposed Status: Threatened**



Photograph by Fritz Rohde.

Type Specimen and Type Locality – This species of killifish has not been formally described, but has been known to researchers to be different from the Waccamaw Killifish, *Fundulus waccamensis*, and the Banded Killifish, *F. diaphanus*, since the late 1970s. Upon scientific description, a type specimen and type locality will be so designated.

The earliest known vouchered records at the North Carolina State Museum of Natural Sciences (NCSM) for the “Lake Phelps” Killifish go back to 1964. During June of that year, 25 specimens were collected from two sites on Lake Phelps by Dr. Joseph R. Bailey and Duke University students (NCSM 44211 and NCSM 44212). Additional specimens were collected in 1972 and 1975 (NCSM 71568 and NCSM 44214) and the occurrence was officially reported in Lake Phelps by Bailey (1977).

Description - The “Lake Phelps” Killifish has an elongate head and body, slender caudal peduncle, flattened snout, small scales, silvery to olive base color, dark bars on the sides, and blue-green to green-gold iridescence, especially on males. Adults are 45 to 85 mm standard length and modally have 52 to 58 lateral line scales (range 50-64) and 4 or 5 gill rakers. The depth of the caudal peduncle is 2.8-3.5 times in the length of the caudal peduncle (Menhinick 1991). Males have 15 to 20 dark vertical bars usually wider than the light interspaces and females have 12 to 16 narrow dark vertical bars. The “Lake Phelps” Killifish may be confused with the Banded Killifish, *Fundulus diaphanus*, but the Banded Killifish has modally 36-39 lateral line scales (range 34-46), and depth of the caudal peduncle is 2.0-2.8 times in the length of the caudal peduncle (Menhinick 1991).

The “Lake Phelps” Killifish and the Waccamaw Killifish (which was discussed in the September 2013 series on North Carolina’s imperiled fish fauna were formerly considered a single species (Bailey 1977; Shute 1980; Menhinick 1991), with the Lake Phelps population possibly artificially introduced from Lake Waccamaw (Wiley and Mayden 1985; Wiley 1986). In 1979 or early 1980, Dr. David G. Lindquist (UNC-Wilmington) and his students, J. R. Shute and P. W. Shute, may have been the first to realize that, contrary to the beliefs of Dr. Bailey, the species of *Fundulus* inhabiting Lake Phelps was morphologically different from *F. waccamensis*, which is endemic to Lake Waccamaw (letter from D. G. Lindquist to J. R. Bailey, dated April 21, 1980; from the correspondence files of Dr. Edward F. Menhinick [UNC-Charlotte] archived at NCSM). Separately, Drs. Lindquist and Menhinick, also did some comparative external morphometric studies of specimens of *Fundulus* specimens from the two lakes in the early 1980s (above cited letter and Menhinick 1980), but neither published their results beyond informal communications. Shute et al. (1981) did state that: “*Specimens in Lake Phelps examined by us [J. R. Shute, P. W. Shute, and D. G. Lindquist] and E. F. Menhinick (pers. comm.) were found to differ slightly from F. waccamensis in respect to head length, interorbital width, and caudal peduncle length*”.

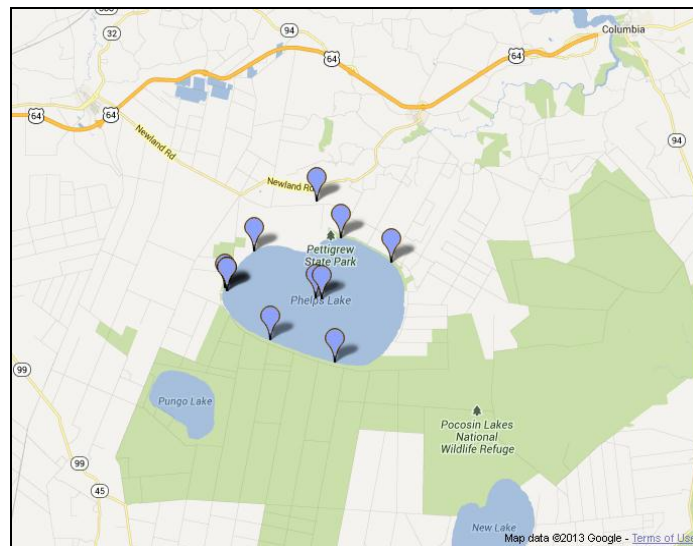
Subsequent morphometric analyses by Krabbenhoft (2006) suggested these two allopatric killifishes independently evolved more elongate morphologies in their respective lakes from isolated populations of the Banded Killifish. Analysis of



mitochondrial sequence data suggests that this population is independently derived from local stream populations of *F. diaphanus*, and is thus neither a relictual population of *F. waccamensis*, nor the result of bait bucket introduction (Quattro et al., unpublished) (Krabbenhoft 2006). Phylogenetic analysis of mitochondrial DNA sequences have been performed (Grady et al. 2000), but these data have not been published. The alpha-level systematics of the Lake Phelps *Fundulus* continues to require further study (Krabbenhoft 2006).

An analogous and very interesting situation may occur in Shearon Harris Reservoir in Chatham/Wake counties, North Carolina, where *Fundulus* specimens, bearing high scale counts and other traits similar to the Waccamaw and Phelps lakes forms, have been captured there on several occasions between 2006 and 2010 (NCSM 23370, NCSM 23371, NCSM 44582, NCSM 56051, and NCSM 60781). Because that reservoir is relatively new and very geographically remote from either of those lakes, these specimens may represent an introduction from one of those locales or, alternately, possibly an introduction of Banded Killifish that have very rapidly assumed traits associated with a lacustrine environment. Analyses of DNA may shed light on the provenance of this population.

Range - The “Lake Phelps” Killifish is endemic to Lake Phelps, where it is the only known killifish present. The similar Banded Killifish occurs mainly in tidal waters in North Carolina and has not been reported in Lake Phelps, but occurs in the Scuppernong River near the lake.



**Global distribution of “Lake Phelps” Killifish, Washington and Tyrrell counties, North Carolina. Map is based upon material vouchered and databased at the North Carolina State Museum of Natural Sciences; the database was queried August 02, 2013. The northernmost and two central lake markers represent records with imprecise locality information rather than true capture points.**

Habitat The “Lake Phelps” Killifish is common in shallow water along sandy to muddy shorelines, often in association with submerged or emergent vegetation (Shute et al. 1983).

Life History and Ecology – The ecology of the “Lake Phelps” Killifish has not been described. But it is assumed that, like the Waccamaw Killifish, it is an epibenthic species, spending most of its time near the bottom, and seems to be an opportunistic feeder consuming primarily benthic chironomid larvae and amphipods (Lindquist and Yarbrough 1982). It is also assumed that spawning occurs from April through August; that males defend territories with lateral displays and spawn with passing females on silty substrate; and that adult females contain about 30 to 50 mature eggs (Shute et al. 1983).

Rationale for Designation - Lake Phelps is supplementally classified as Outstanding Resource Waters by the North Carolina Division of Water Quality. The shallow littoral zone used for spawning by “Lake Phelps” Killifish was damaged in the 1960s and 1970s by large amounts of wind-blown silt from extensive lands cleared for row crop agriculture in the area (Bailey 1977; Menhinick 1987; Menhinick and Braswell 1997). The lake has also been partially drained repeatedly for fire-fighting. The “Lake Phelps” Killifish is assigned State Threatened status.

Recommendations - Special attention should be given to preventing siltation in Lake Phelps and maintaining adequate water levels in Lake Phelps. A lake level management strategy involving use and maintenance of the existing canal system was proposed and adopted in 1980 to reduce flooding frequencies and durations of the nearby agricultural areas (NCDNR&CD 1980). Lake Phelps receives partial protection because the entire lake is part of North Carolina’s Pettigrew State Park and the north and northeast shores lie within the park proper. The west and southwest shorelines are part of the US Fish & Wildlife Service’s Pocosin Lakes National Wildlife Refuge. This extent of public ownership should facilitate habitat protection and restoration activities. Further genetic studies of the “Lake Phelps” Killifish, Waccamaw Killifish, and nearby populations of the Banded Killifish are needed to resolve the systematic and taxonomic questions of this group. Life history and ecological studies of the “Lake Phelps” Killifish should also be undertaken. The NCWRC currently does not have any immediate work plans to further investigate this species. When last surveyed in 2010, “they were rather abundant” (pers. com. Mr. Tyler Black, NCWRC, August 09, 2013).

#### Literature Cited and Recommended Readings

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- Shute, J. R., Shute, P. W., and D. G. Lindquist. 1981. Fishes of the Waccamaw River drainage. *Brimleyana*. 6:1-24.
- Wiley, E. O. and R. L. Mayden. 1985. Species and speciation in phylogenetic systematics, with examples from the North American fish fauna. *Annals of the Missouri Botanical Garden*. 72:596-635.
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## **Spotlight on Students and Young Professionals**

### **Spotlight on Joe Smith**

Joe is an East Tennessee native (Kingsport) and grew up at the foot of a beautiful mountain range called Bays Mountain. His interest in natural resources started there; hunting crawdads, catching creek chubs, and wrangling hogsuckers from the streams near home. Joe's passion for fishing was spawned by a 44-acre impoundment at Bays

Mountain Park that once served as the cities drinking water source and produced some of the best bluegill, shellcracker, and largemouth bass fishing a kid could hope for.

After crossing professional bass fisherman, and rock-n-roll star off his list of potential careers (difficult prospects when one has no boat and limited talent), Joe decided to explore fisheries resource work. Joe took an opportunity to volunteer on a stream assessment crew with biologists from the Tennessee Valley Authority (TVA). The crew conducted Index of Biotic Integrity (IBI) surveys throughout the Tennessee Valley system. After volunteering for a couple of seasons, and learning a great deal about stream fish identification and collection techniques, Joe was given a paid position on the crew. During this time, he went back to school at a community college in Knoxville, TN and earned an Associates of Science degree. Joe then transferred into the Wildlife and Fisheries Science undergraduate program at the University of Tennessee. During his undergraduate, Joe continued to work with TVA in their aquatic monitoring and watershed services groups until becoming a research technician at the university. He assisted graduate students with a variety of projects and lead field collection activities for a long-term study in the Pigeon River, TN/NC.

After receiving his BS, Joe took a job as a Natural Resource Biologist I with the Maryland Department of Natural Resources. He was part of the monitoring and non-tidal assessment group and took part in IBI surveys within tributary systems of the Chesapeake Bay. Joe also worked with biologists from the state's Natural Heritage program on a species of endangered mussel, and led a small crew on stream snorkel surveys to map the distribution and collect data on the dwarf wedgemussel (*Alasmidonta heterodon*).

Joe left Maryland DNR to pursue a graduate degree at NC State, where he was lucky enough to be accepted into the Fisheries and Wildlife Program and conduct research at the North Carolina Cooperative Fish and Wildlife Research Unit (NC Coop) under Dr. Joe Hightower. Joe's research focused on the effects of lock and dam structures on the spawning and distribution of American shad and striped bass in the Cape Fear River, NC. He used egg collection and acoustic telemetry data to examine spawning and migratory patterns of fish during their spring spawning period. During this time, he worked closely with the NCWRC District 4 biologists Keith Ashley and Tom Rachels, and was able to develop great relationships with other state and federal agency personnel. He was also able to publish his graduate research in Transactions of the American Fisheries Society.

Upon completion of his MS, Joe took a job as a Fisheries Research Biologist with the Texas Parks and Wildlife Department (TPWD) at the Heart of the Hills Fisheries Science Center. His research was focused on the effects of decreasing water levels on migratory reservoir species. Joe used acoustic telemetry to evaluate movement patterns

of blue catfish, white bass and grey redhorse and determine the potential effects of disconnection between upriver and reservoir habitats. Joe also took part in research dealing with reservoir sportfish year-class strength, invasive species effects on native fish, endangered species, and alligator gar conservation.

In 2011, Joe's wife was hired to teach at Ohio State University (OSU), so he moved with her to Columbus, OH and started a PhD position in Ecology and Evolutionary Biology. Joe was part of the OSU Aquatic Ecology Lab and worked with the Ohio Department of Natural Resources Division of Wildlife on a research project examining largemouth bass recruitment. The goal was to identify important factors and underlying mechanisms regulating first-year growth and survival of largemouth bass in Ohio Reservoirs. As luck would have it, Joe's wife landed a great job in Raleigh and we decided to relocate to North Carolina in May 2013. Upon relocation, Joe began working as senior research technician with the NC Coop at NCSU, once again with Dr. Hightower. His research was focused on fall spawning of Atlantic sturgeon within the Roanoke River and he is currently working on publishing those findings. Joe began working with the NCWRC as the District 5 Assistant Fisheries Biologist on December, 3 2013.



*Submitted by Jessica Baumann*

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## Interesting Fish News from around North Carolina

### Disjunct Montane Populations of *Elassoma* Recently Discovered

In mid-October 2013, two here-to-fore unknown populations of *Elassoma* sp. (Pygmy Sunfish) were discovered in Ashe County. Far removed from their quiet, blackwater Coastal Plain kin, these populations were found in the clear runs and noisy riffles of Big Laurel and Big Horse creeks, tributaries to the North Fork New River and to one of the oldest rivers on Earth, the New River.



**Streamside siting and type locality of an undescribed species of montane *Elassoma*.**

Long believed that this license plate was extinct, it apparently has re-appeared after several years absence. Its normal home range lies between Wilmington and Beaufort, NC but has been known to aimlessly migrate throughout the streams and backwaters of the Southeast and even into Death Valley (the real Death Valley, not the mythical one in South Carolina).

The owner and person who can be found sitting behind the wheel of this mobile fish tank is Fritz Rohde. Fritz has contributed much to our understanding of North Carolina's fish fauna by co-authoring two books and several papers on *Elassoma* including the original species descriptions of Carolina Pygmy Sunfish and Bluebarred Pygmy Sunfish. His contributions over his career have been immeasurable.

This is the second spotting of a freshwater fish species far- removed from its previous ancestral home. For previous sightings, please go to our Chapter's newsletter archives and download the June 2009 and December 2012 issues (<http://www.sdafs.org/ncafs/content.html?contentName=newsletters>). There you will learn about vanity license plates that can carry hidden ichthyological meanings. In North Carolina, these scaly plates have already been spoken for: NCSMFISH (Dr. Wayne Starnes), MONACHA (Dr. Bill McLarney), SALMO (Dr. Bob Jenkins, VA), and # 1 P REX (Dave Coughlan). There may be others out there, but their population sizes

are below the detection level and occupancy models may be needed to detect their presence.



**Fritz photographing a Kanawha Darter and showing us youngins' how it is done.**

*Submitted by Bryn Tracy*

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### **Hightower Receives 25th Annual NCSU Libraries Faculty Award**

Dr. Joseph E. Hightower, Professor of Applied Ecology and Assistant Leader of the NC Cooperative Fish and Wildlife Research Unit, was the 25th Annual (2013) recipient of the NCSU Libraries Faculty Award for his steady and strong support of the libraries' mission and activities.

Joe has served on the University Library Committee and as Departmental Representative to the Library for many years. He established an endowment to support library collections, and he has championed innovative teaching initiatives that complement the libraries' emerging role in the management and dissemination of digital information. Joe pioneered distance education in our Department and regularly teaches online classes to our students at the CMAST laboratory on the NC coast and other locations. He recently developed and taught an innovative graduate course "Scientific Communication in a Digital World" that engaged library staff with graduate students to discuss the developing role of academic libraries in digital information management and publishing.

The award was presented to Joe by Dr. Susan Nutter, Vice Provost and Director of Libraries, at a lunch reception held 21 October 2013 at McKimmon Center.



**Joe Hightower, Professor of Applied Ecology and Assistant Leader of the NC Cooperative Fish and Wildlife Research Unit, is presented the NCSU Libraries Faculty Award by Susan Nutter, Vice Provost and Director of Libraries, at a reception held 21 October 2013 at McKimmon Center.**

*Submitted by Tom Kwak*

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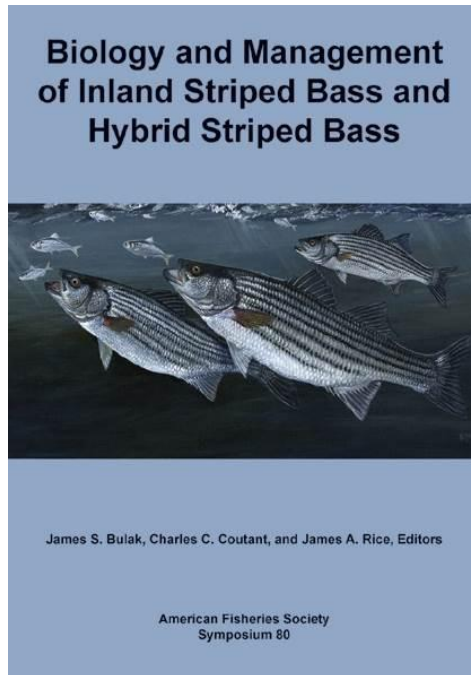
## **NCAFS Members Contribute to New Striped Bass Book**

The American Fisheries Society recently published *Biology and Management of Inland Striped Bass and Hybrid Striped Bass* 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. Members of NCAFS were major contributors to this 588-page book. Jim Rice was one of three co-editors, and 8 of the book's 34 chapters were authored or co-authored by current or former NCAFS members Scott Van Horn, Joe Hightower, Christian Waters, Jessica Thompson, Ken Pollock, Brian McRae, Jim Rice, Jake Rash, Chris Taylor, Don Degan, David Yow, Doug Besler and Win Taylor.

The book is organized in 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>. This hardcover book is \$79 for non-members, \$55 for AFS members (member discount taken at checkout).



*Submitted by Jim Rice*

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## **Legal Field use of Fish Sedatives**

Dear AFS Chapter and Division Presidents,

I am requesting that you help us spread the word about legal use of fish drugs, particularly field use of fish sedatives, by providing the following link to an article that was recently published in Fisheries to your membership.

<https://drive.google.com/file/d/0B43dbIZIJqD3eWZrTHdMbEIDR3c/edit?usp=sharing>.

Over the years, we have found that many fisheries professionals continue to use clove oil (85-95% eugenol) and MS-222 as immediate-release sedatives, thinking that products that are Generally Recognized as Safe or are approved fish drugs must be okay to use in the field. Clove oil is not approved for any use in fish, and catchable fish treated with MS-222 cannot be immediately returned to the wild.

The primary goal of this outreach effort is to let fisheries professionals know that there is a legal option for sedating fish in the field where no withholding period is required: AQUI-S20. Although this drug is not yet approved by the U.S. Food and Drug Administration (the sponsor hopes to have an initial approval in 2015), AQUI-S20E can be used through authorization granted by the FDA to the USFWS's Aquatic Animal Drug Approval Partnership Program (AADAP) . To learn more about using this fish sedative under the USFWS's Investigational New Animal Drug exemption, please visit the the AADAP website (<http://www.fws.gov/fisheries/aadap/AQUIS-E.HTM>).

Your help in disseminating this information, via your listserv or in your Chapter or Division newsletter, is greatly appreciated. The Society will be spreading this message more broadly in the form of a Science Release currently in development. If you have questions, please feel free to contact Dr. Jesse Trushenski ([saluski@siu.edu](mailto:saluski@siu.edu)) or Jim Bowker ([jim\\_bowker@fws.gov](mailto:jim_bowker@fws.gov)).

Sincerely,

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Aquatic Animal Drug Approval Partnership Program  
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*Submitted by Greg Cope*

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## **Meetings of Interest**

**2014 NCAFS Annual Meeting-** February 18-19, 2014, Durham, NC.

<http://www.sdafs.org/ncafs/>

**2014 NCSU Student Fisheries Society-** First Tuesday of each month, Raleigh, NC.

<http://clubs.ncsu.edu/sfs/>

**2014 SDAFS Meeting-** January 22-26, 2014, Charleston, SC.

<http://sdafs.org/meeting2014/>

**144th Annual Meeting of the American Fisheries Society-** August 17-21, 2014, Quebec City, PQ. <http://afs2014.org/>

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## **Valuable Links**

The American Fisheries Society Home Page offers a wealth of links to assist you in your fishery endeavors. Information on ordering AFS books, public outreach, annual meetings, chapter links and joining the AFS can be found at <http://www.fisheries.org/>. You can subscribe to the NCAFS list serve at <http://lists.fisheries.org/listinfo.cgi/ncafs-fisheries.org> and check out the podcasts from the 2013 SDAFS meeting at <http://sdafs.org/spring-meeting-2013/podcasts-nashville-tn/>

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