AMERICAN FISHERIES SOCIETY

NEWSLETTER **September 2007**

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We would appreciate your comments on this electronic version of the NC Chapter Newsletter. Please send all responses to Jerry Finke (jerry.finke@ncwildlife.org).

President's Message

This September I had the pleasure of attending the 137th annual meeting of the American Fisheries Society. NC AFS members actively participated in the meeting through oral presentations, posters, and awards (noted elsewhere in the newsletter). With over 2,400 registered for the meeting comprised of 61 symposia, 1,400 oral presentations, 350 posters, and up to 23 concurrent technical sessions, the meeting truly represented the length and breath of the society. The old standby presentations on freshwater and marine fisheries ecology and management, fish culture and health, hydroacoustics and tagging were well accounted for. Relatively newer areas of focus were also prominent – ecosystem based modeling and management, habitat restoration, and human dimensions. Several speakers discussed the increasing complexity of resource management and greater involvement of special interest groups. Multi-stakeholder involvement has become an important component of the ecosystem approach to management by helping to better understand societal tradeoffs and frame policy choices. Building consensus among traditional and non-traditional groups (i.e. non-angling) stakeholders presents a greater challenge to resource agencies. Resource managers were encouraged to look to these non-angling groups to develop partnerships to support conservation and education efforts.

We participated in an urban trout fishing event where about 140 kids received casting and knot tying instruction, conservation and ethics information, and hands on fishing for stocked rainbow trout. What made the event function so well was close work between 2 local conservation groups who supplied the tackle and educational instruction, California Fish and Game who stocked trout within a block net, and the local AFS chapter who cooked lunch for the kids and volunteers. This project was an excellent example of cooperation that can promote fishing and aquatic conservation education. Can you help me think of other opportunities where this template might function to meet AFS chapter and societal goals?

Kent Nelson

Secretary-Treasurer's Report

Minutes of the July 2007 EXCOM Meeting.
Submitted by Brian McRae, Secretary-Treasurer

NCSU Student Subunit Report

The NCSU student subunit has had a busy summer and start of fall. Since the end of the school year in April, the subunit has volunteered at four events, conducted their first fall meeting and traveled to the National AFS meeting in San Francisco. That doesn't even include all the great research that was conducted this summer!

When classes ended in spring 2007, subunit members again volunteered during the Annual Neuse River Clean-up held along 50 miles of the Neuse River near Raleigh. Riverkeepers had a total of 241 volunteers that collected 401 bags of garbage and various other items including tires, grocery carts, dryers, picnic tables and toilets! This was an all morning event where members used canoes to paddle the river and remove trash and large debris from the river.

NCSU Student Subunit VP (Lindsay Glass) and president (Marybeth Brey) pose with garbage during the Neuse River Clean-Up.

In May, Christin Brown and Marybeth Brey traveled to Fuquay-Varina High School to attend "Science Night." They showed multiple preserved fish species from North Carolina and quizzed students on them. They also talked about fisheries programs available at NCSU as well as the Hutton Scholar Program. Also in May, many subunit members returned to the Harris Farm near Louisburg, NC. Subunit members helped conduct the yearly population estimate on the ponds by electrofishing and hook-and-line sampling. Of course the day ended with a huge BBQ chicken dinner and a lot of laughs!
Our largest event of the summer was the opening of the new pier on Lake Raleigh, part of NCSU's Centennial Campus. In conjunction with the NC Wildlife Resources Commission, NCSU's Centennial Campus, and various other organizations, the subunit put together a station displaying Dr. Joe Hightower's electroshocking boat, fish seines, and pictures of North Carolina fish, in order to teach children how fish were sampled in the lake. The day ended with our own Dr. Tom Kwak speaking at the pier dedication ceremony, plenty of food, and a kid's fishing day. In all, the event was a great time and a huge success!

Kevin Magowan, NCSU subunit treasurer, talks to kids about electroshocking at the Raleigh Pier Opening.

Finally, the subunit had a huge showing at the recent Annual AFS Meeting in San Francisco where nine members (Julie Harris, Matthew Krachey, Nate Bacheler, Jim Morley, Ernie Hain, Joan Louie, Kevin Magowan, Jessica Brewster, and Christin Brown) gave paper presentations, and seven students received NC chapter travel awards! In addition, four outstanding graduate students received the John E. Skinner Memorial Award for travel to the Annual meeting: Jessica Brewster, Christin Brown, Nate Bacheler and Julie Harris. This was a huge honor for them and our chapter! Furthermore, Nate's research was selected to be judged for the best student paper and poster. Congratulations to Nate. Subunit members were visible in all aspects of the meeting, from attendance, presentations, AV and registration workers, as well as spawning run participants. Many unit members got up early on Wednesday morning to take in the great views along Golden Gate Park in the annual Spawning Run 5K and 10K events. Not only did many of our professors and students run, but Julie Harris and Jim Morley, both subunit members) ran for third in their respective divisions!

Marybeth Brey and Skinner Award winner, Christin Brown (NCSU student subunit) enjoy the view in San Francisco before the student social at the Aquarium by the Bay.

Now that the summer has ended and subunit members have returned from the field, monthly meetings have started again. The subunit held their first meeting of the semester with a great turn-out (possibly due to the free pizza and treats) on August 28th with guest speaker Dr. Harry Daniels speaking about aquaculture at NC State. The next meeting will be held at 7:00pm on Tuesday, October 2nd in DCL 102. Our guest speaker will be NCSU Professor Emeritus, Pete Bromley with a talk entitled "Taking Risks for Trout in the Catskills." If you are going to be in the Raleigh area, we always welcome visitors to our meetings, and as always if you have any questions or suggestions contact us or check out our website: http://www.ncsu.edu/stud_orgs/sfs/.

Submitted by Marybeth Brey, NCSU student subunit president: mkbrey@ncsu.edu

Education and Outreach Committee

Results of Continuing Education Topic Survey

The results of the survey for potential continuing education topics provided by NC AFS members at the 2007 meeting in Danville, Virginia are in, and indicate that Chapter members have a diverse array of interests and needs. A total of 42 surveys were returned and the top ranked topics, listed in order of preference, were as follows.

1. (tie among 3 topics with 16 votes each), Statistics, sampling, and experimental design; GPS/GIS applications; and Scientific communication—media to public meetings.
2. Aquatic plant identification and management (15 votes).
3. Mussel identification (13 votes).
4. Exotic (invasive) species (12 votes)
5. (tie between 2 topics with 11 votes each), Crayfish identification; and Fisheries photography.
6. (tie among 3 topics with 10 votes each), Aquatic contaminants and fish consumption advisories; water quality for fisheries professionals; and in-stream flow/stream geomorphology/hydrology.

The results of this survey will provide the Education and Outreach Committee with valuable information for planning future workshops and courses that meet the needs of Chapter members. The Committee is in the process of evaluating local, regional, and national expertise needed to instruct and organize courses and workshops on each of these top-ranked topics and will plan accordingly for the 2008 Chapter meeting. Look for information soon and plan to participate. The Committee sincerely appreciates the member feedback!

Submitted by Greg Cope and Bob Barwick, Co-Chairs

Awards Committee

2007 Student Travel Award Presented

The N.C. AFS Chapter established a Student Travel Award Program in 2005 for the specific purpose of encouraging professional growth of students and maximal participation of undergraduate and graduate students at the annual meeting of the American Fisheries Society. Monetary support is provided to qualifying students via a travel award of $200 to $400 to help defer the cost of meeting travel, registration, and accommodations. The awards were presented to seven students for the annual American Fisheries Society meeting held September 2-6, 2007 in San Francisco, California.

The seven award winners in 2007 were all from N.C. State University. Each student received a cash award of $340 from the Chapter. The winners included Jessica Brewster and Christin Brown, both advised by Dr. Tom Kwak; Julie Harris and Kevin Magowan, advised by Dr. Joe Hightower; James Morley advised by Dr. Jeff Buckel; and Ernie Hain and Joan Louie, advised by Dr. Stacy Nelson.

2007 Student Travel Award winners pictured at the Student Social held at the Aquarium at the Bay, Fisherman's Wharf. On the front row (left to right) are Ernie Hain, Joan Louie, and Kevin Magowan and Jessica Brewster, Julie Harris, Christin Brown, and Jim Morley are in the back. Photo credit: Dr. Joe Hightower.

All seven of these students represented the Chapter admirably at the San Francisco meeting and expressed their sincere gratitude to the Chapter for helping to make their attendance and participation possible. They all encouraged fellow students to apply for the travel award in 2008. The Chapter would like to congratulate these deserving students on receiving the 2007 travel awards. Interested students (and their advisors) should see the Awards Committee web site at http://www.sdafs.org/ncafs/Awards.htm for more details. The deadline for submittal of applications for the 2008 travel awards is June 15th of next year. Please direct questions to Dr. Greg Cope, NCSU at greg_cope@ncsu.edu.

Submitted by Greg Cope and John Crutchfield

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 **Fisheries Conservation Award** recognizes non-Chapter members who have distinguished themselves by service or commitment to the Chapter or the fisheries resources of North Carolina.

The Awards Committee is soliciting nominations from the membership for both of these awards for 2007. 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@pgnmail.com, Progress Energy, 410 South Wilmington Street, PEB4, Raleigh, NC, 27602-1551. **Nominations will be accepted until Friday, January 4, 2008**. Any questions, call John at 919-546-7095.

Submitted by John Crutchfield, Awards Committee Chair

News from around North Carolina

Chapter News from the American Fisheries Society Meeting in San Francisco submitted by Joe Hightower, NCSU

NCSU students and faculty were highly visible at the recent American Fisheries Society meeting held in San Francisco, September 2-6. Tom Kwak was installed as the new president of the Education Section and moderated the Student Symposium. We had eight student presenters (Christin Brown, Jessica Brewster, Kevin Magowan, Julie Harris, Jim Morley, Joan Louie, Nate Bacheler, and Matthew Krachey) with additional talks presented or co-authored by Derek Aday, Wilson Laney, and Chris Taylor. Four NCSU fisheries students (Christin Brown, Jessica Brewster, Julie Harris and honorable mention Nate Bacheler) received travel grants from the John E. Skinner Memorial Fund. Seven NCSU students received travel awards from NCAFS: Christin Brown, Jessica Brewster, Kevin Magowan, Julie Harris, James Morley, Ernie Hain, and Joan Louie. In the non-work category, both Julie Harris and Jim Morley placed third in their age divisions in the Spawning Run!

North Carolina Division of Water Quality News from Bryn Tracy, NCDWQ

Summer Intern at DWQ

Andrew Rominger, a second semester senior at North Carolina State University, became the most recent alumnus of a 10 week summer internship with the Division of Water Quality's Biological Assessment Unit (BAU). This was the fifth year that the division has worked with NCSU's College of Natural Resources to secure an internship position (see NCAFS 2003 - 2006 Newsletters -- http://www.sdafs.org/ncafs/Newsletters.htm) and the first year the position was funded through the NCDENR

REACH Program (http://www.enr.state.nc.us/Reach/index.html).

In 10 very short weeks (but extremely long days), Andrew assisted the stream fish community assessment (NC IBI) program in sampling 38 streams in the French Broad and upper Catawba River basins. An intern tradition that has been upheld, Andrew sampled a stream on the other side of the mountain from which he grew up, but never fished (North Toe River, Avery County). That morning, accompanied by his dad and a fishing buddy, Andrew got first hand experience of just how many catchable trout can be in a 600 ft. reach of stream.

In Burke County, Andrew also sampled Paddy Creek, where 85 years earlier, Dr. Robert E. Coker first collected and subsequently described *Richia brevispina* (currently known as *Etheostoma flabellare brevispinum*) He also visited Roses Creek, the locality from which *Notropis cummingsae collis* (Hubbs and Raney) was described. Besides the NCIBI field work, Andrew assisted staff with the ongoing monitoring of PCBs in fish tissue in the Crabtree Creek watershed (Wake County) and a cooperative, multi-agency study of the recovery of the fish community in the Deep River following removal of the Carbonton Dam.

By working across several river basins, Andrew was able to observe a wide range of stream and habitat conditions. For example, those draining minimally-impacted forested watersheds or those enjoyable to sample, productivity-enhanced streams where the Central Stoneroller seemed to never stop popping up. He became familiar with 106 species, almost one-half of the state's freshwater fauna, including the colorful Redline Darter and "Stubby", the Brown Trout (see photographs).

Redline Darter, South Fork Mills River, Henderson County

Brown Trout, Cane Creek, Mitchell County

What Andrew really slobbered over was collecting a Hellbender, also known as a snot otter, from Big Rock Creek (Mitchell County). Other more forgettable moments included shocking a full grown beaver in Curtis Creek (McDowell County). Shooting out like a torpedo straight towards us, it was amazing how fast one can move in waders while carrying a shocker, when the need arises.

Hellbender, Big Rock Creek, Mitchell County

Over the past five summers, the NCSU interns (Aaron Bunch, Alison Price, Tyler Averett, Ernie Hain, and Andrew Rominger) have provided much-needed assistance and a youthful spark to the stream fish community assessment program. The energetic and inquisitive interns have gained critical skills in the field and laboratory identification of many species of freshwater fish, experience in wadeable stream backpack electrofishing techniques, electronic data entry into Access databases, instream and riparian habitat assessments, and water quality instrumentation. The division plans to continue this successful relationship for many years to come and encourages university students to take full advantage of the REACH Program throughout the year.

Basinwide Monitoring

Between early April and late June 2007, the stream fish community assessment program sampled 87 basinwide sites in the Tar, Catawba, and French Broad River basins. BAU staff were accompanied at times by

colleagues from Duke Power Company, the NC Wildlife Resources Commission, US Forest Service, NC Ecosystem Enhancement Program, and other DWQ offices; their participation was welcomed and always appreciated. The complete data, ratings, and analyses for all 2007 sites will be available in early 2008 on the BAU's web page (http://www.esb.enr.state.nc.us/BAU.html). Results from last year's monitoring of the Yadkin and Lumber River basins are now available at: http://www.esb.enr.state.nc.us/Basinwide/YADBasinwide2007.pdf, and http://www.esb.enr.state.nc.us/Basinwide/Lumber2007Final.pdf.

In the Tar River Basin, the emphasis was on repeating sampling efforts at several sites in the piedmont. Efforts then focused on the coastal plain where stream types varied from minimally affected, natural morphometry to open canopy, "straight as an arrow", channelized streams. The fish communities in these two types of streams are very different in terms of species diversity and abundance as is the water quality. IBI-type metrics and criteria for assessing these distinctive streams and communities are still under development.

Tyson Creek, Pitt County

Cannon Swamp, US 264, Pitt County

The next issue of the NCAFS newsletter will report on any new distributional records that were uncovered this year. Until then, it should be mentioned that a common occurrence, that is being repeatedly documented throughout our state, is the interbasin transfer and introduction of species. For example, in the Catawba River Basin, the Greenhead Shiner, *Notropis chlorocephalus*, should be one of the dominant native species. In the adjacent Yadkin River Bain, it is the Redlip Shiner, *N. chiliticus*. However, in several streams in Alexander, Lincoln, and Mecklenburg counties, the Redlip Shiner has displaced or hybridized with the Greenhead Shiner. Ethanol-and formalin-preserved specimens of both species from throughout the Catawba River Basin were vouchered at the North Carolina State Museum of Natural Sciences for future studies on the distribution and possible hybridization of these two species.

Greenhead Shiner, Duck Creek, Alexander County

Redlip Shiner, Glade Creek, Alexander County

Probabilistic Monitoring

The Environmental Sciences Section is conducting a probabilistic, random monitoring program at 29 sites during 2007 and 2008. Watershed sizes of the sites range from 0.2 to 2,582 square miles and extend across the state from Mitchell to Brunswick counties. Physical and chemical water quality variables are being collected monthly at each site; benthic macroinvertebrate and fish are collected wherever possible depending upon the

permanence of flows and the size of the waterbodies. The goal of this EPA-encouraged program is to have a statistically valid "snapshot" of the state's water quality. Results should be available in 2009.

For further information on any of the Division's on-going fish studies, please contact Bryn Tracy.

Status Update of the Endangered Cape Fear Shiner, Gerald Pottern -- Robert J. Goldstein & Associates.
This summer I've been conducting surveys for the Cape Fear shiner *Notropis mekistocholas*, along with Ryan Heise, Brena Jones, and Tom Fox from NCWRC, and other agency staff and volunteers. It's been a treat to re-visit many sites that I sampled during 1984 to 1986 while in graduate school at NCSU, under Dr. Melvin Huish. In 1987 USFWS used my original status survey to support federal endangered listing for the Cape Fear shiner. Thanks again to readers here who helped me with those early surveys!

The Cape Fear shiner Notropis mekistocholas

The Cape Fear shiner is superficially similar to the swallowtail, whitemouth, spottail, and coastal shiners that share its range, but can be distinguished from those species by its small horizontal mouth, thin black edge on its lower lip, head shape, dark-edged dorsal scales, and eight anal fin rays. Its long intestine and black peritoneum are unusual among *Notropis*, most of which are carnivorous, but similar to omnivorous minnows in other genera. These gut adaptations allow the Cape Fear shiner to get by on algae when invertebrate prey are scarce. Seasonal herbivory may be a competitive advantage, as this shiner's primary habitat is drought-prone rivers in the Carolina Slate Belt and Triassic Basin; streams with naturally low baseflows and abundant bedrock and boulders supporting algae growth. It is most often found in wide, shallow, rocky riffle/run/pool segments of large streams with water willow (*Justicia*), riverweed (*Podostemum*), stream mosses (*Fontinalis*), and attached algae, often among islands and braided channels. It also occupies the lower reaches of major tributaries, at least temporarily, but spawning is probably limited to large streams, based on young-of-year collections.

From its initial discovery by NCWRC in 1962 until the first status survey began in 1984, Cape Fear shiners were collected from the Haw River and Robeson Creek in eastern Chatham County, Rocky River in central Chatham County, and the Cape Fear River and several tributaries between Buckhorn Dam and Lillington in northern Harnett County. Our 1984 to 1986 surveys revealed many new sites along the Deep River from southeastern Randolph County through northern Moore County to the US-1 bridge along the Chatham/Lee County line, and in the lower five miles of Rocky River. However, Cape Fear shiner populations in the Haw River, upper Rocky River, and Cape Fear River appeared to have declined: We found none in the Haw River and tributaries, one specimen in the upper Rocky River, and a small school in lower Neals Creek in Harnett County. Construction of Jordan Reservoir in 1980 impounded much of the historic Haw River and Robeson Creek habitat, and likely altered seasonal hydrology, temperature, nutrient cycling, sediment transport, and other ecological processes in the Cape Fear River downstream. Subsequent sampling by John Alderman and WRC staff during the late 1980s and 1990s yielded a few Haw River specimens at three sites between Chatham County's northern border and US-64 above Jordan Reservoir, but none in upper Rocky River or the Cape Fear River below Buckhorn Dam (personal communication, no vouchered specimens).

Deep River Cape Fear shiner habitat

Based on this summer's sampling to date, the Cape Fear shiner is doing well in the Deep River from Highfalls in Moore County to US-1 near Moncure along the Chatham/Lee County line. Some sites yielded 30 or more specimens, mixed among hundreds to thousands of other shiners. The recent removal of Carbonton Dam in 2006, located mid-way between Highfalls and Moncure, should further help the Deep River population by restoring free-flowing habitat and allowing upstream

and downstream populations to interbreed. The US-1 site is especially interesting because suitable rocky habitat there is limited to 1,100 feet of river isolated between Locksville Dam above and the backwaters of Buckhorn Dam below. We also found Cape Fear shiners readily in the lower five miles of Rocky River in Chatham County, between Woodys Dam and the Deep River confluence. Samples at historic collection sites on Rocky River upstream of Woodys Dam (including the type locality) yielded no specimens, despite being numerous during the 1970s. Wastewater spills and urbanization impacts may have extirpated the Cape Fear shiner from this reach. However, we did find all the other species of shiners and riffle-dwelling fishes expected here, and the habitat still looks suitable, so re-introduction to Rocky River above Woodys Dam may be feasible.

The only Cape Fear shiner found so far this year in Randolph County was in the Deep River at the foot of Coleridge Dam, ten miles above of the previous upstream vouchered record (Fork Creek in 1985). Similarly, we found a single specimen in the Cape Fear River near Erwin in southern Harnett County, eleven miles below the previous downstream record (Neals Creek in 1986). These findings indicate that small populations persist in the Deep River between Coleridge and Highfalls and in the Cape Fear River between Buckhorn Dam and Erwin. No specimen has turned up yet in the Haw River, but there is still extensive unsampled habitat within the historic range, so we can't rule out the possibility of a small population persisting here too.

Identifying existing and potential threats to these habitats and finding socially acceptable protection strategies for these apparently fragile populations will be crucial if the Cape Fear shiner is to survive long-term, as Chatham, Lee, Moore, Randolph, and Harnett Counties are all rapidly expanding their utility infrastructure in expectation of extensive urban growth. Being principally a big-stream fish makes conservation of the Cape Fear shiner especially complicated, as effective protection efforts must be watershed-wide and involve many local governments and thousands of landowners. Time will tell if the recently built Randleman Reservoir on the Deep River in northern Randolph County will affect downstream fish populations, as Jordan Lake seems to have done in the Cape Fear River.

NCWRC and USFWS will use our findings from surveys this summer to develop strategies for protecting river segments that still have good populations of Cape Fear shiners and for recovering populations where they appear to have died out, if habitat improvement is possible. Meanwhile, if you're free on a weekday and would like to help seine in slippery rocky rivers, please contact me. Gerald Pottern, gpottern@RJGAcarolina.com, 919-872-1174.

AFS Tagging and Marking Symposium News Forwarded by Dave Coughlan

The American Fisheries Society, the Australian Society for Fish Biology, and the New Zealand Marine Sciences Society are pleased to announce Advances in Tagging and Marking Technology for Fisheries Management and Research, to be held in Auckland, New Zealand, February 24-28, 2008. Abstract submission and registration are available now at their website, http://www.fisheries.org/units/tag2008, (abstract submission deadline is 31 October) or feel free to contact brad.parsons@dnr.state.mn.us with questions. Also, please read the *Guest Director*s Line* in the June issue of Fisheries.

The sessions for Advances in Tagging and Marking Technology for Fisheries Management and Research will include: satellite tags, archival tags, acoustic tags and arrays, radio telemetry, new methods utilizing traditional internal and external tags, chemical and genetic marks, various integrated approaches, and data analysis techniques. It is the hope that discussions held at this symposium will be the impetus for even greater advances in tagging for fisheries science. Furthermore, he proceedings of this new Symposium will provide the next step beyond Fish Marking Techniques, and the proceedings from the Australian Society for Fish Biology Tagging Workshop in 1988 and Workshop on Fish Movement and Migration in 1999, into this century*s methods, technologies, advances, and challenges.

Announcing Wildland Hydrology Courses for 2008, Forwarded by Dave Coughlan

Wildland Hydrology is excited to announce their 2008 course schedule. If you are interested in participating in any of these 2008 courses, please log onto http://www.wildlandhydrology.com for the complete course schedule, course descriptions and our registration form - you should check is out ASAP as the classes fill quickly.

Spotlight on Students and Young Professionals

Jason Godbout, MS Student, NCSU – Jason Godbout was born in Augusta, Maine and lived in the great northeast for most of his life. An outdoorsman and Eagle Scout, he attended the University of Maine and graduated with honors in 2004 with a degree in Wildlife Ecology. When he wasn't busy studying, fishing, or avoiding seafood consumption (he eats no fish or shellfish and, "would only consume lobster in an emergency"!) he stayed occupied with a series of interesting internships, starting in 2001 at the Sam Parr Biological Field Station of the Illinois Natural History Survey. In 2002 he participated in a Canada lynx-snowshoe hare study (yep, they're still working on those two) at the University of Maine, and in 2003 he worked with the U.S. Forest Service in Utah on Colorado River cutthroat trout restoration.

Jason and AFS Hutton Scholar Victoria Ma finding out what a flathead ate for lunch.

After graduating from the University of Maine, Jason returned to the Illinois Natural History Survey, where he worked as a technician until 2006, when he started graduate school in the Fisheries and Wildlife Sciences Program at NCSU. Jason's research is part of a large, foodweb dynamics project on Lake Norman. Specifically, Jason is interested in interactions and potential hybridization between largemouth and spotted bass in the lake, and how competitive interactions between the two might drive population dynamics of each.

Jason, welcome to North Carolina, where our lobsters look a lot more like crayfish!

Submitted by Derek Aday, NCSU

Brad Garner, MS Student, NCSU —Brad Garner went from the Dukes of Hazzard to Duke Energy, then snubbed the Blue Devils and broke that theme to attend graduate school at NC State! He was born in Covington, Georgia, in Newton County — but also known as Hazzard County after the Dukes of Hazzard TV series was filmed there. But his family moved on to upstate South Carolina, where Brad spent his formative years on the water and in the woods with his father and brother. Brad's father was a wildlife biologist employed with state and federal agencies, and the outdoor bug was passed on to Brad and his brother. Brad's brother pursued wildlife as a profession and is now a Ducks Unlimited biologist, and Brad followed his own interests in fisheries and aquatic science.

Brad completed his undergraduate degree in Aquaculture, Fisheries, and Wildlife Biology at Clemson University in 1997. He then found employment at a private aquaculture facility in Mississippi, rearing warmwater sport fishes. During 2000, Brad began a six-month internship with Duke Energy in Huntersville, where he sampled fishes by net, electrofishing, and rotenone with Chapter members Duane Harrell, Larry Olmsted, Dave Coughlan, Hugh Barwick, Kim Baker, and others. After his internship, they kept him on full-time, until budgets got tight and the biological group was reorganized in 2002. At that time, Brad joined Geosyntec, an environmental consulting firm based in Atlanta. In that position, he worked in all areas of aquatic science with a fisheries emphasis on projects associated with utility companies, other private industry, and local government. But he was later reassigned as a contract employee to work back at Duke Energy in Huntersville.

Brad Garner shows off a trophy freshwater tarpon sampled from the Wateree River, South Carolina.

Then in the fall of 2005, Brad began pursuing a Master's degree in Fisheries at NC State. He's currently in the late stages of his thesis research on intensive grass carp stocking effects on reservoir invasive plants and native fish populations in collaboration with his major advisor, Tom Kwak, and Duke Energy biologists, Hugh Barwick and Ken Manuel. His field work was recently completed on Lookout Shoals Lake in the Catawba drainage, and he's presented his preliminary results at several aquatic plant management society meetings, as well as our Chapter annual meeting in Danville, Virginia (jointly held with the VA Chapter), where he received the Richard Noble Best Student Paper Award. Brad will complete his Master's degree this winter or next spring and then will seek employment with a resource management agency or a private consulting firm. Brad's hobbies all involve rods, reels, and guns, and he looks forward to all the other adventures that life as a fishery biologist will bring.

Submitted by Tom Kwak, NCSU

Meetings of Interest

SDAFS News forwarded by Fred Janssen, TPWD
CALL FOR PAPERS, Southern Division Spring Meeting-2008

The West Virginia Chapter and Southern Division of the American Fisheries Society invite you to join us in Wheeling at the Oglebay Resort and Conference Center for the 2008 Southern Division Spring Meeting, February 28-March 2, 2008. The meeting's theme is "Headwater Streams to Large Rivers".

The due date for symposia, poster, and general session abstracts will be 1 December 2007. For more information, visit the meeting website at http://www.sdafs.org/meetings/2008. Online abstract submission will be available 15 August 2007

SCAFS Fall Workshop News
Forwarded by Dave Coughlan

The South Carolina Chapter of the American Fisheries Society (SC-AFS), chartered on September 24, 1982,is planning to open its 25th year with a workshop focused around "Ecosystem Based Fisheries Management in South Carolina". This event will take place on Friday November 9 from 1:00-4:30pm in the Russell House Theater at the University of South Carolina in Columbia, SC. The workshop will open with three key note presentations, each highlighting a different aspect of fisheries in South Carolina. The speakers will set the stage for a forum discussion about ecosystem based fisheries management. This forum discussion will be moderated by Dr. John Mark Dean and forum members will represent diverse aspects of South Carolina fisheries, such as marine and freshwater environments, fisheries management, legal and political aspects, socio-economic facets, commercial and recreational fisheries, conservation, etc.
We expect attendance of people with a wide range of natural resource management interests and we will encourage active participation of the audience in the discussions.

Date:	November 9, 2007
Time:	1:00 - 4:30 pm
Location:	Russell House Theater University of South Carolina Columbia, SC

The program is will be followed by a reception from 5-7pm for SC-AFS members and workshop participants. Please check the SCAFS website for more details (http://www.scafs.org).

Introduction to Planning and Planting Stream Restoration Projects --
October 25, 2007 , NC Arboretum Library, Asheville, North Carolina
http://www.ncsu.edu/srp/veg_workshop.html

Planning a stream restoration project? Do you want to enlist the surrounding air and water to work for you, strengthening your project over time? Make your planting plans work!

Reducing erosion and providing habitat are two common stream restoration goals. Both goals depend heavily on success of planting and growth. Mitigation projects are awarded credit on the basis of planting success. Planting is sometimes treated as a minor finishing detail of restoration projects, going unrecognized as a vital key to structural and ecological effectiveness.

This workshop will address:

- Assessing a site before restoration
- Coordinating with project managers
- Choosing an ideal plant community
- Modifying it for your own reality
- Calculating plant material needed
- Working with your supplier
- Coordinating installation
- Starting maintenance BEFORE your plants are dead

This is a beginning level workshop, appropriate for folks who have never managed a restoration planting project, or who've managed one and been frustrated

with the process and the results. Also useful for professionals who deal with only one aspect – designing or planting or maintenance – to see the whole picture. Planting contractors and landscapers who wish to move into riparian restoration work can learn about special considerations.

Please register online at:
http://www.ncsu.edu/srp/veg_workshop.html

AFS Student Colloquium – Conserving Fisheries Locally and Globally: Continuing and Improving the Student Tradition. October 20-21, Charleston, WV.

The theme of the meeting is "Conserving Fisheries Locally and Globally: Continuing and Improving the Student Tradition". An opening social will take place on the evening of the 20th (Saturday) and student presentations will occur on Sunday October 21st. Scholarships of $100 dollars are available to graduate students who present at both the AFS student meeting (either an oral presentation or a poster) and SEAFWA (poster only) and to undergraduates who are interested in attending both meetings (you do not have to present, but it is encouraged). Scholarships will be given on first-come-first-serve basis with your submission to the AFS student meeting (You must present at both meetings if you are a grad student or attend both meeting as an undergrad to be eligible). There are a total of 20 scholarships available with 15 for graduate and 5 for undergraduate students. Undergraduate presenters will receive first consideration for scholarships.

Registration is $15 for early registration by September 27th and $25 for late registration. Fees include a T-shirt and the opening social. A block of rooms has been reserved at the Holiday Inn Express for the rate of $77/night plus tax for up to 4 students. Please call 304-345-0600 for reservations and ask for the Southeast Fish and Wildlife Conference rate. Twenty students who register for the SEAWFA meeting are eligible for free rooms for the nights of October 22nd and 23rd. Please contact Stuart Welsh at swelsh@mail.wvu.edu for more information. Rooms must be reserved by September 27, 2007 to receive the reduced rate. More information on the ASF student colloquium can be found at http://www.sdafs.org or http://www.wvu.edu/~wvuafs/, and additional information on SEAFWA can be found at http://www.seafwa2007.org/.

2007 Mid-Atlantic Stream Restoration Conference – November 7–8, 2007, Rocky Gap State Park, Cumberland, MD. Abstracts due May 31, 2007.
http://www.canaanvi.org/canaanvi_web/events_ed.aspx?collection=cvi_works

Stream Restoration Construction Training - Dec. 3-5, 2007, Raleigh, NC. For detailed information and to register on-line visit:
http://www.ncsu.edu/srp/workshops.html

AutoCAD Use for Stream Monitoring and 3-D Stream Restoration - Dec. 10-14, 2007, Raleigh, NC
Jane S. McKimmon Center, NC State University. For detailed information and to register on-line visit:
http://www.ncsu.edu/srp/workshops.html

2008 Southern Division AFS Spring Meeting – Feb. 28-Mar. 2, 2008, Wheeling, WV.

River Course I, II & III - Spring 2008, Raleigh, NC
Stream Classification & Assessment - March 18-22, 2008
Stream Restoration Design Principles - April 15-17, 2008
Advanced Stream Restoration Design Principles - May 6-8, 2008

If you are aware of meeting information that would be beneficial to the membership of the NCAFS, please send it to the newsletter editor for inclusion in the next newsletter. ksparks1@nc.rr.com

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/.