

NEWSLETTER

SEPTEMBER 2005

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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 – Duane Harrell

I was fortunate enough to attend the National AFS meeting in Anchorage, Alaska. This was the first national meeting I have attended since the 2000 meeting in St. Louis, Missouri. I had almost forgotten how much information exchange takes place in a four-day period, through the various venues of continuing education workshops, concurrent technical sessions, symposia, poster sessions and trade show. Additionally, there's the equally valuable exchange of information that occurs from the interaction and dialogue with professional peers.

I have always felt that one of the greatest benefits of scientific meetings, such as the AFS meeting, is the opportunity for professional development and networking among peers in a diverse assemblage of state, federal, non-governmental and private industry biologists. This opportunity is especially important for students and young professionals who are in the early stages of preparing for or just beginning a career in fisheries. This year, our Chapter provided financial assistance to our Student Subunit to help sponsor student travel to the Anchorage meeting. In the ExCom's discussions and consideration of this funding request, we evaluated the relative benefit of this investment. I say investment, because that word best captures the true nature of the funding we provided.

Although I intuitively knew that our financial assistance was an investment, I didn't fully realize the true value of that investment until I was able to observe these students in the backdrop of "my generation" of fisheries peers, including some of the most notable icons of our profession. I quickly realized that my generation can confidently pass the torch to this next generation of young professionals with full confidence that they possess the knowledge, skills, enthusiasm and vision to ensure that the torch will continue to burn brightly.

As I sat in the business meeting during the Awards and Presentations portion of the meeting and observed our Student Subunit receive collective and individual recognition, I felt an extreme sense of pride. It was a pride born from recognition of their accomplishments and the value they add to and derive from our Chapter. We can all be proud of the excellent relationship between the Chapter and Student Subunit and the synergy we derive from that relationship. We should all also be motivated by the enthusiasm and

energy exhibited by our Student Subunit and follow their example, as we consider ways that we can become more involved, whether it is service at the Chapter, Division or National level.

In closing, I realize that the awards presented to our Student Subunit and its members are highlighted elsewhere in the newsletter, but I wanted to personally recognize them here as well. First, the North Carolina Student Subunit received the **Outstanding Student Subunit Award**. This award is presented annually to the American Fisheries Society's best student subunit and recognizes subunits that demonstrate outstanding professionalism, active resource protection and enhancement programs, as well as a strong commitment to the mission of the Society. This is a great honor to be selected as the best of all Divisions' student subunits. The award was accepted by Student Subunit co-Presidents Warren Mitchell and Jenny Vander Pluym and subunit officers Lori Davias and Michael Shepherd.

As for individual awards, Lori Davias won the **Student Writing Contest**. This contest recognizes students for excellence in the communication of fisheries research to the general public. Undergraduate and graduate students submit a 500 to 700-word article explaining their own research or a research project in their lab or school. The article must be written in a language understandable to the general public (i.e. Journalistic Style). Lori's winning paper, "That's One Hot Striper; How a North Carolina Reservoir Fishery is Exceeding Expectations" will be published in an upcoming issue of *Fisheries*, so be sure to keep an eye out for her article.

Last, but certainly not least, Warren Mitchell, our Student Subunit co-President, received Honorable Mention for the **John E. Skinner Memorial Fund Award**. The John E. Skinner Memorial Fund was established in memory of John Skinner, former Chapter and Western Division American Fisheries Society President. Award recipients are selected based on academic qualifications and professional service.

Congratulations to Lori, Warren and the entire Student Subunit for your outstanding accomplishments and much deserved recognition. Keep up the GREAT work!

Duane Harrell

NCSU Student Subunit Report

At NC State, an active summer has given way to an equally animated fall semester for the student subunit. Summer fieldwork saw students and associates of our group far abroad: from reservoirs in the Appalachian foothills to spiny lobster grounds off the Florida Keys. Travels to Alaska for the annual meeting have been safely logged. Three-ring binders and calculators have supplanted field notebooks and waders, and activity near the Raleigh campus is the focus now. Please join us for an autumn activity or 1st Tuesday meeting. Stay informed by joining our list serve (details at http://www.ncsu.edu/stud_orgs/sfs/).

We sincerely acknowledge the NCAFS Executive Committee, and therefore state chapter membership in general, for assistance with student travel to the Anchorage meeting. Acting on a proposal written this summer by subunit leadership, the ExComm contributed \$1000 to the \$800 raised by the subunit. It was a once-in-a-career opportunity for most involved – to represent our school and state in a setting so unique to fisheries and aquatic sciences.



Dr. Tom Kwak and Cooperator Lawrence Dorsey lead students Ed Malindzak, Aaron Bunch, and Michael Shepherd on a successful flatfish symposium aboard the USS Servant. Photo by Servant crew.

Funding for students was competitive, but we were able to support all applicants in some way. By best accounts, almost 30 students, faculty and associates of NC State attended. Eleven students presented

their work at a meeting that broke all attendance records. Three NCSU undergrads took a break from fall classes to attend the Anchorage Meeting (Aaron Bunch, Jason Edwards, Mike Shepherd) and to receive the Student Subunit Award; they received modest travel assistance from the Chapter and Student Subunit. We all appreciate the continuing support, and hope our photographs can even tell a smidge of the story.



The anadromous fish symposium lead by Dr. Joe Hightower on the Kenai River was less successful, but the concept of rain gear was absorbed by Tom Kwak, Ed Malindzak, and Wilson Laney. Photo credit unknown.

Also in Anchorage, North Carolina members and NCSU students were on hand at the AFS business meeting to accept the Outstanding Student Subunit Award. This achievement, judged solely on the activities of 2004, strongly reflects a foundation of prior student involvement and established relationships with state chapter members. Please recall that we have been recognized twice in recent memory within the Southern Division. To the many alumni around the state - you should share in our moment of notoriety; it is your past labors we build on. In our reward letter we were recognized for "accomplishments in the areas of Aquatic Stewardship, Information Transfer and Outreach, and Member Services."



NCSU Subunit officers Michael Shepherd, Lori Davias, Jenny Vander Pluym, and Warren Mitchell accept the AFS Outstanding Student Subunit Award, given by Barbara Knuth, outgoing AFS President. Photo by Joe Hightower.

Our first fall meeting was August 30th in the newly renovated David Clark Labs. We organized some thoughts for the semester, added 17 new names to the list serve (n = 116), and reviewed a 2004 North Carolina Sea Grant publication, The Amazing Oyster. Thanks to Jack Thigpen of the Raleigh office for donating the DVD to the subunit. To quote Brandon Puckett, member and PhD student, "Dude, that is pretty much my dissertation – can I borrow that?" The meeting adjourned to a local pizzeria with a vast cichlid tank.

On Tuesday October 4th we will host Ms. Coleen Sullins, Deputy Director, North Carolina Division of Water Quality. We look forward to her presentation, please come join us in Raleigh, 7 pm in room DCL 102. Alaska pictures will be also reviewed. We have a stream restoration with the NC State Museum of Natural Sciences in the works, and a camping trip to Cape Lookout coming together very soon. At the November 1st meeting we'll host NCSU alumni Todd Kellison, now fishery biologist for Biscayne National Park. Have an enjoyable fall cool-down, and please keep an eye on our website: http://www.ncsu.edu/stud_orgs/sfs/. As always we seek new experiences, and encourage state chapter members to contact our officers or membership mailing list with ideas for our participation (ncsu_sfs@lists.ncsu.edu).

Contact Jenny Vander Pluym (jlvander@ncsu.edu) or Warren Mitchell (wamitche@unity.ncsu.edu) if you have any questions about Sub-unit events.

Submitted by Warren Mitchell, Student Subunit Co-President

Program Committee

North Carolina Chapter of the American Fisheries Society announces that the annual meeting will be held at The Summit meeting facilities in Greensboro, NC on Tuesday, January 31 to Wednesday, February 1, 2006. These are the same great facilities used for last year's meeting.

CALL FOR PAPERS - This year the EXCOM of the NCAFS choose not to designate a particular theme for this year's meeting. Instead, we want the membership to drive the topics presented. The topics can include completed projects, works in progress, case histories, or even the evolution of aquatic programs (i.e. agencies, universities, private sector) within North Carolina. Our chapter has members who work on a wide range of topics and we want to hear from all of you!

All presentations will be scheduled for 15 minutes with a 5 minute period for questions and answers. Please send all abstracts to Lawrence Dorsey dorseylg@vnet.net by **January 1, 2006**. Abstracts should include presenters name, title, affiliation, and title of presentation. If you have questions, contact Lawrence Dorsey via email or by phone at 704-986-6109.

Submitted by Lawrence Dorsey, President-Elect

Education and Outreach Committee

The newly created Education and Outreach Committee, co-chaired by Bob Barwick of the NC Wildlife Resources Commission and Greg Cope of NC State University, has been extremely active since its formation in June 2005. Specifically, an outreach proposal entitled "Techniques to maintain healthy aquatic ecosystems associated with waterfront development in North Carolina" has already been drafted and submitted to the NC State University Extension, Engagement and Economic Development Office for funding consideration. Should the proposal receive funding, the NC AFS Chapter, along with the NC Wildlife Resources Commission, NC State University, the NCSU Student AFS Subunit, Duke Power Company, and other agencies and organizations would collaborate on a project to develop, compile, evaluate, and disseminate education and outreach materials that outline the importance of well-planned residential and commercial waterfront development for the protection and conservation of aquatic habitats.

On the education front, plans for a continuing

education workshop to be offered at the 2006 Annual Meeting have been solidified. The topic of the 2006 workshop will focus on environmental decision making and conflict resolution for natural resource professionals. The instructor for the short course will be Dr. Steve Smutko of the Department of Agricultural and Resource Economics at NC State University. Dr. Smutko is a renowned leader and Extension educator in the area of natural resources, public decision-making, and dispute resolution. Stay tuned for more details on the workshop as plans for the 2006 Annual Meeting are confirmed.

To operate within the Chapter framework and by-laws, a new charter description for the combined Education and Outreach Committee has been drafted and will be reviewed and discussed at the October 2005 EXCOM meeting.

Finally, a warm welcome is extended for member input and participation. Anyone wishing to become more involved in the combined efforts of education and outreach at the Chapter level are encouraged to contact either of the co-chairs or members of the EXCOM.

Submitted by Greg Cope and Bob Barwick, Co-Chairs

Awards Committee

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 2005. 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 Monday, January 5, 2005.** Any questions, call John at 919-546-7095.

Submitted by John Crutchfield, Awards Committee Chair

Environmental Concerns Committee

We intend to keep the website updated with current information about the ECC's activities. Therefore, as with ideas about priority issues that affect fishery resources in North Carolina, we welcome and encourage any suggestions on ways to improve the ECC website and its usefulness to Chapter members. Please contact Dave McHenry at E-mail: mchenryd@brinet.com or use the comment form on the ECC web page.

Submitted by David McHenry, Environmental Concerns Committee Chair

News from around North Carolina

AFS Annual Meeting News from Joe Hightower and Tom Kwak, NCSU- Warren Mitchell of NCSU received an honorable mention for the John E. Skinner Memorial Fund Award, established in memory of John Skinner, former Chapter and Western Division American Fisheries Society President. Selection is based on academic qualifications, professional service, and reasons for attending the meeting.

Warren is co-president of the NCSU Student Sub-unit, and is working on an MS degree with the NC Cooperative Fish and Wildlife Research Unit. He is using hydroacoustic equipment to characterize the migration of anadromous fishes in the Roanoke River.



Warren Mitchell, NCSU graduate student, receives his Skinner Memorial Fund Award plaque from outgoing AFS President Barb Knuth.

Lori Davias was one of two student winners of the 2005 Student Writing Contest, established to recognize students who do an excellent job communicating the value of fisheries research to the general public.



Lori Davias, NCSU graduate student, receives a Student writing Contest Award plaque from outgoing AFS President Barb Knuth.

Submitted articles are judged according to their quality and their ability to turn a scientific research topic into a paper for the general public. Lori's article was titled "That's One Hot Striper: How a North Carolina Reservoir Fishery is Exceeding Expectations" based on her experiences working on her thesis project with advisor Jim Rice and biologists of the NC Wildlife Resources Commission. A copy of Lori's article was displayed at the poster session in Anchorage, and she was presented a plaque recognizing her

achievement. Her winning article will be published in the October issue of Fisheries magazine. Congratulations, Lori!

In recognition of his efforts organizing the student paper judging for two years in a row at the AFS parent society meeting, Mike Holliman (NCSU post-doc researcher) received a Distinguished Service Award from the Education Section of the AFS at the Anchorage Meeting. Mike appreciates all the help that Chapter members gave in judging papers. Way to go, Mike!

Fisheries Mentorship Program News from Aaron Bunch, NCSU - Now that I am a senior at North Carolina State University many things have come into perspective and many questions have come to mind. Where will I be after I graduate? What job will I have? Will I go to graduate school? These questions haunt students as they make the transition from undergraduate education to the job market or higher education. I am happy to say that my experiences, while involved in the NCSU student fisheries society, will ease this transition when I graduate in May 2006. Numerous jobs and internships have helped me get a “jump” into the fish world. I encourage every fisheries student to pursue jobs and internships in our field. It is a great way to gain experience and make valuable contacts.



Bryn Tracy, NCDWQ, has informally mentored Aaron Bunch (right) during his undergraduate studies at NCSU.

To help other students gain this kind of experience, I have taken on the role of developing the North Carolina Fisheries Mentorship Program. The goal of this program is to link students with

professionals, enabling students to gain valuable contacts that may lead to an internship or job in the future. It will be time well spent for both the professional and the student. Students, take advantage of this opportunity and complete a [Student Application form](#). It will definitely help you as you pursue a career in fisheries.

Professionals, with your help the program will be a success (please complete a [Professional Application form](#)).

The program can include any fisheries professionals and students in North Carolina. The mentoring can be as little or as big of a time commitment as you would like it to be. It could include field work or just providing some advice based on your experience. All that is asked is to meet with the student at least once (hopefully more!) during each semester and for the student to be able to reach you with any questions they may have. The arrangements for a meeting place and time will be up to professionals and students. Even if only one student is helped by the program, I will consider it to be a success. With your help, the program will strengthen the next generation of fisheries scientists!!!

The deadline for applications will be **Friday, October 14, 2005**. You will receive an email with all the contact information. If you have any questions or concerns, please feel free to email me at ajbunch@ncsu.edu.

NCDWQ News from Bryn Tracy and Mark Hale, NCDWQ –

Summer Intern at DWQ - Tyler Averett, a rising Junior in Fisheries & Wildlife Sciences at North Carolina State University, became the most recent alumnus of a summer internship with the Division of Water Quality's Biological Assessment Unit. This was the third year that the Division worked with NCSU's College of Natural Resources to co-fund an internship position (see September 2003 and 2004 Newsletters -- <http://www.sdafs.org/ncafs/Newsletters.htm>)

During his internship, Tyler assisted in the sampling of 34 streams in the lower Neuse River basin in Jones, Craven and Pitt counties and in the Broad River basin in Cleveland, Rutherford, and Polk counties. On his first day on the job, Tyler learned that, in our Coastal Plain streams, just putting one foot in front of the other can be more of a challenge than trying to shoulder a backpack shocker. Some of the Coastal Plain streams sampled were tannin stained and flowing through a

natural channel while others were crystal clear with channels “straight as an arrow”. He even was able to sample a stream near his own back yard. There he could not believe how diverse the fish community was and how big the largemouth bass were (see photo).



Tyler Averett with largemouth bass from Indian Wells Swamp, Pitt County.

Tyler also assisted in fish tissue contaminant sampling as part of the Division’s on-going, statewide low level mercury study. At the bow of the electrofishing boat, Tyler netted largemouth bass and catfish from the Black, Lumber, Roanoke, and Haw Rivers and from Lake James and High Rock Lake.

When not in the field, Tyler assisted in the laboratory identification of 83 fish community samples. By the end of the summer Tyler had learned to identify more than 50 percent of our state’s freshwater fauna. He proved adept at noting the differences between *Nocomis leptocephalus* and *N. raneyi*, *Etheostoma nigrum* and *E. olmstedii*, *Moxostoma collapsum* and *M. pappillosum*, *Cyprinella labrosa* and *C. zanema*, and *Cyprinella chloristia* and *C. pyrrhomelas*. A Down East fisherman by birth, Tyler was in awe of the beauty of our native fauna and never knew that dazzling species such as fieryblack and Piedmont shiners and seagreen and Roanoke darters could be found in our wadeable streams.



Fieryblack shiner, North Fork First Broad River.

One of the critical life lessons that Tyler learned was that days in the field start early, much earlier than his classes at NCSU! As with his predecessors, Tyler provided much needed assistance to the Division’s Basinwide Fish Community program. As a young fisheries professional, Tyler gained critical skills in the field and laboratory identification of many species of freshwater fish. He also widened his experience in wadeable stream backpack electrofishing techniques, data entry into an Access database, instream and riparian habitat assessments, water quality instrumentation, and most importantly, in teamwork. Although Tyler may have been short of stature and easily floated downstream by a swift current, he was long on staying power. The youthful enthusiasm he brought into the stream and his eagerness to learn was greatly appreciated by BAU Staff.

Web Pages - A new Web page has been developed on the 219 native and introduced freshwater fish species of North Carolina (<http://www.esb.enr.state.nc.us/www.esb.enr.state.nc.us/Native%20and%20Introduced%20Freshwater%20Fish%20in%20North%20Carolina.2-1.htm>). Species lists for each of the state’s 17 river basins (as defined by the Division and not those which may be ichthyologically distinct from one another such as the Toe River vs. the French Broad River basins) are given. This Web page can serve as a starting place for those who desire information on which species are where, and to serve as a place where new distributional records can be reported.

For example, one can discover that the most species-rich basins are the Yadkin and Roanoke River Basins and that more than 40 percent of the New River Basin’s fauna came from outside that basin. One can also learn that the bluehead chub is now found in the French Broad River Basin and the northern hog sucker was probably introduced into the Yadkin River Basin. Researchers are encouraged to voucher specimens representing new

records with Dr. Wayne C. Starnes at the North Carolina Museum of Natural Sciences. The Web page will be updated periodically as new records are obtained.

Other Web pages that the Division maintains that may be of interest to the Membership includes:

- ◆ NCIBI Data --
<http://www.esb.enr.state.nc.us/NCIBI.htm>
- ◆ NCIBI Scores and Ratings --
<http://www.esb.enr.state.nc.us/IBIrate.htm>
- ◆ Basinwide Assessment Reports --
<http://www.esb.enr.state.nc.us/bar.html>
- ◆ Fish Kills --
<http://www.esb.enr.state.nc.us/Fishkill/fishkillmain.htm>
- ◆ Fish Tissue Contaminants --
http://www.esb.enr.state.nc.us/fish_tissue_results.html

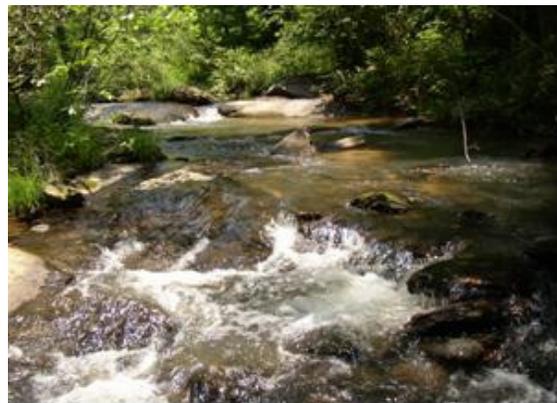
Basinwide Monitoring - In 2004, 76 sites in the Roanoke, Little Tennessee, Watauga, and Hiwassee River Basins were assessed as part of the Division's Basinwide Monitoring Program. In the Roanoke River Basin, Archies and Peters Creeks were rated as Excellent and, if petitioned, could be supplementally reclassified as High Quality Waters. These two streams were also home to the Roanoke hog sucker, smallmouth bass, cutlip minnow, riverweed darter, and bigeye jumprock.

In 2005 basinwide monitoring focused its efforts on the Broad and Neuse River Basins where 70 sites were assessed. In the Neuse River Basin 54 sites were sampled from Person to Jones County, including 26 sites in the Coastal Plain where it is challenging to find wadeable streams that have not been hydrologically modified by hurricanes or beavers. Coastal Plain waterbodies range from shallow, channelized streams to tannin stained and sandy bottom streams flowing through bottomland forests.

Further west in the Broad River Basin, waterbodies ranged from shallow, sandy bottom streams that easily become turbid to those that have high gradient riffles and plunge pools as they drain the Eastern Blue Ridge Foothills.



Falling Creek, Lenoir County.



Britten Creek, Polk County.

Based upon a cursory examination of the data, new DWQ distributional records (i.e., those not shown in Menhinick (1991) and collected for the first time by DWQ Staff from a particular county in that particular river basin) have been recorded for:

- ◆ Broad River Basin – *Notemigonus crysoleucas* (Rutherford County), *Pimephales promelas* (Cleveland County), *Lepomis cyanellus* (Cleveland, Polk, and Rutherford counties), *Percina crassa* (Polk and Rutherford counties); and
- ◆ Neuse River Basin – *Lepisosteus osseus* (Jones County), *Amia calva* (Greene and Wilson counties), *Ameiurus platycephalus* (Person and Johnston counties), *A. brunneus* (Wake County), *A. catus* (Jones County), *Pylodictis olivaris* (Johnston County), *Lepomis marginatus* (Wayne County), *Lepomis microlophus* (Wayne and Wilson counties), and *Etheostoma nigrum* (Jones, Wayne, and Wilson counties).

The Carolina madtom *Noturus furiosus* was not collected at any of the Neuse River Basin sites, although anecdotal reports have it “holding on” in the Little River Basin in Wake and Johnston counties.

Taxonomically challenging species encountered this year included the Piedmont Shiner, *Notropis* sp. cf. *chlorocephalus*, in the Broad River Basin where fin color varied from yellow, to yellow and white, to white, to red. In the Neuse River Basin Johnny and Tessellated Darters in certain streams exhibited characteristics of both species (varying degrees of completeness of the infraorbital canal and lateral line scale counts). Specimens of the Johnny Darter were found in the Coastal Plain as far east as Wilson, Wayne, and Jones counties, whereas specimens of the Tessellated Darter were found as far west in the Piedmont as Johnston and Wake counties. The transitional zone (the Fall Line) between the Northern Outer Piedmont and the Rolling Coastal Plain appears to be the area of character overlap and confusion. If you are interested in solving either of these taxonomic riddles, they would make a good Master’s thesis!

In the Broad River Basin, Brier, Walnut, and Britten Creeks all rated Excellent and, if petitioned, could be supplementally reclassified as High Quality Waters. In the Neuse River Basin, Deep Creek (Person County) would also qualify as High Quality Waters if so petitioned. Coastal Plain stream are currently not rated, but some of them are expected to rate pretty well when criteria are developed.

Reclassification Studies - Three reclassification studies were conducted in 2005 – Camp Creek (Little Tennessee River Basin), North Fork First Broad River (Broad River Basin), and Eno River (Neuse River Basin). The watershed of the North Fork First Broad River and portions of the Eno River and two of its tributaries (Rhodes and Buckquarter Creeks) qualified to be supplementally reclassified to Outstanding Resource Waters and the upper watershed of Camp Creek was found to support trout and would qualify to be supplementally reclassified as Trout Waters. The next step in the reclassification process is for this information to be presented at public meetings which will likely be held in 2006.



North Fork First Broad River, Rutherford County.

Special Studies - In mid June, Staff were assisted in their fish community sampling by researchers from NCSU who are investigating changing land use patterns in the Perry and Marsh Creek watersheds in Wake County. NCSU Staff included Drs. Stacy Nelson and Halil Cakir, doctoral student Barry Hester, and two of Stacy’s summer interns from the University of Puerto Rico. Netting a 850 mm TL grass carp from Perry Creek was not foreseen!



Left to right – Stacy Nelson, Bryn Tracy, Sophy Burgos, Isalyn Navarro, Barry Hester, Halil Cakir, Tyler Averett. Not shown Jeff DeBerardinis.



Isalyn and Sophy with a grass carp from Perry Creek.

2004 Hurricane Impacts - Late November and early December 2004 found Staff assessing the impacts from the remnants of Hurricanes Frances, Ivan, and Jeanne which had caused 25 to greater than 500 year recurrence interval floods throughout many of the mountain counties. Unfortunately, North Carolina Wildlife Resources Commission's Scott Loftis' article in the April 2005 issue of *Wildlife in North Carolina* "beat the DWQ's memorandum to the punch". Scott stated: "*The floods just didn't have a catastrophic effect on younger or older fish*". The DWQ memorandum did not appear until later in the month.

Staff found that even though the flooding inundated agricultural supplies stores, petroleum storage facilities, wastewater treatment plants, *etc.*, there were no significant fish kills greater than 25 fish reported during or after the floods due to the extreme volume of water that diluted any wastes and contaminants. The flash floods affected many of the streams in the same manner:

1. the substrates were "scrubbed clean" of *Podostemum* and silts;
2. the banks and instream gravel bars were eroded and the riparian vegetation had been removed or damaged; and
3. waterborne household debris was left deposited on the banks or in the riparian vegetation



Cove Creek, Watauga County, December 02, 2004.

The fish community in South Hominy Creek (Buncombe County) declined from Good in 1997 and 2002 to Fair following the flooding. Species that inhabit the open water column such as warpaint shiner, mirror shiner, saffron shiner, river chub, creek chub, and rock bass all declined in abundance. The more benthic species such as mountain brook lamprey and the riffle inhabiting species such as northern hog sucker, mottled sculpin, and Swannanoa darter seemed to have fared better than the open water and pool inhabiting species.

Big Crabtree Creek (Mitchell County), a fish community regional reference site whose watershed is primarily forested, saw no changes in its fish community. The community was very stable and has consistently rated Excellent.

The fish community in Cove Creek (Watauga County) was rated Good-Fair in May 2004 and was dominated by the central stoneroller. Following the floods, the number of fish and the CPUE increased slightly. The community declined to Fair but was still dominated by the central stoneroller. Benthic and riffles inhabiting species such as the central stoneroller and northern hog sucker fared well, although the margined madtom did not; while water column species such as whitetail shiner, river chub, Tennessee shiner, and rock bass declined.

Fish Tissue Contaminant Monitoring - DWQ
Staff continued with their on-going study involving sampling for low level mercury contamination in fish and water. The purpose of the study, being conducted this year in the Piedmont and Mountains, is to determine ambient levels of mercury in surface water and to develop site-specific bioaccumulation factors for fish (usually largemouth bass and catfish).

Fish tissue sampling also continued in 2005 as part of the ongoing statewide assessment of pesticides in North Carolina's freshwater fish. The survey is intended as a Tier 1 type study whose primary goal is to identify mainstem inland waterbodies where organic contaminants exceed specified human health or environmental screening values for edible fish. Sites where contaminants are identified would require more intensive follow-up sampling. The 2005 schedule includes surveys in the Chowan, Pasquotank, Roanoke, and Catawba River Basins.



Flathead catfish, Waccamaw River.

As of September 01, 2005, DWQ Staff have received only 16 reports of fish kills from across the state. Most kills were reported from the Wake County area or from the Coastal Plain. Although conditions for fish kills such as low dissolved oxygen and high temperatures have been documented in the state's trouble spots (e.g., the Tar-Pamlico and Neuse River estuaries), severe kill activity has yet to be observed in these areas in 2005.

For further information on any of the Division's ongoing fish studies, please contact Bryn Tracy (bryn.tracy@ncmail.net), Jeff DeBerardinis (jeff.deberardinis@ncmail.net), or Mark Hale (mark.hale@ncmail.net).

5th Annual AFS Student Colloquium News from Dee Dee Barry, ECU - The ECU-AFS Student Subunit is pleased to host the 5th Annual AFS Student Colloquium from November 4-6, 2005 in Greenville, NC. This meeting is hosted by students for students. This is an excellent opportunity for students to meet and greet other students that are interested in fisheries biology and to present data in a relaxing atmosphere without the pressure of professionals. We invite students of all levels of academia to attend, either to present or just visit. Please visit the ECU-AFS website,

www.ecu.edu/org/afs, for information regarding colloquium registration, hotel accommodations and program schedule. Please note that as new information arises, updates will be made.

NC Wildlife Action Plan News from Salinda Daley

- North Carolina is the first state in the nation to have its Comprehensive Wildlife Conservation Strategy approved by the USFWS. The Strategy will be called the NC Wildlife Action Plan as it is introduced to the public. The Action Plan was required by Congress in order to receive non-game funding through the State Wildlife Grants program. North Carolina's Wildlife Action Plan identifies priority species and habitats in need of conservation attention, and provides a detailed description of the research, survey, monitoring, and conservation action priorities for each of the habitats and river basins in the state. The document also addresses state-wide issues such as urbanization, private lands management, land conservation strategies, and wildlife education. North Carolina's plan has been lauded by the USFWS, Defenders of Wildlife, and others for its thoroughness and comprehensive approach to strategic planning. The Wildlife Action Plan was developed with the input of a wide variety of stakeholders from many organizations, and it is hoped that the plan will provide a coordinating and rallying point for conservation efforts across the state. The Wildlife Action Plan can be viewed at

http://www.ncwildlife.org/pg07_WildlifeSpeciesCon/p/7c1.htm, under 'Downloads'. Contact Scott Van Horn (scott.vanhorn@ncwildlife.org; 919.528.9886) for more information.

2006 SDAFS Meeting News from Fred Janssen, Texas Parks and Wildlife Department – First Call for Papers, Southern Division Spring Meeting-2006. The Texas Chapter and Southern Division of the American Fisheries Society invite you to join us in San Antonio at the Crowne Plaza Hotel for the 2006 Southern Division Spring Meeting, 8-12 February 2006. The meeting's theme is "Water Allocation for Fisheries." Due date for symposia, poster, and general session abstracts will be 1 December 2005. For more information, visit the meeting website at <http://www.sdafs.org/meetings/2006/>. Instructions for abstract submission can be found at the same website.

4th International Reservoir Symposium News forwarded by Mike Colvin - The Southern Division American Fisheries Society Reservoir Committee is proud to announce this symposium has been scheduled for June 6-9, 2007, in Atlanta, Georgia. The theme of this symposium is “*Balancing Fisheries Management and Water Uses for Impounded River Systems*” and will consist of invited and contributed papers from individuals all across the country. Speakers will present on a broad range of issues, from case studies to new technologies to changes in management philosophy. Proposed topics include: Balancing Fisheries Issues with Basin-wide Water Uses, Aquatic Habitat, Human Dimensions, Catch and Release and Use of Regulations, Stocking Issues, and Assessment and Analysis. If you have other topics or specific projects that you would like to present, please contact Mike Colvin at <mailto:Mike.Colvin@mdc.mo.gov>. More details will be available soon. Stay tuned...

Meetings of Interest

Conservation Genetics for Natural Resource Managers – Oct. 12-14, 2005, Elizabethan Gardens, Manteo, NC. This short course is designed to provide an accelerated and in depth overview of the field of conservation genetics by describing the multiple ways in which genetic analysis can be effectively used in conservation and management.
<http://www.cnrhome.uidaho.edu/crissp/courses>.

59th Annual Southeastern Association of Fish and Wildlife Agencies Conference – Oct. 16-19, 2005, St. Louis, MO. <http://mdc.mo.gov/seafwa/>. Early registration is open until October 1st, 2005; and you can register online at <http://mdc.mo.gov/seafwa/seafreg.htm>.

Stream Restoration Construction Training – Dec. 6-8 and 13-15, 2005, Lake Wheeler Land Application Training and Demonstration Center, NCSU, Raleigh, NC.
<http://www.bae.ncsu.edu/workshops/constructiontraining/index.html>.

Annual Meeting of the North Carolina Chapter of the American Fisheries Society – Jan. 31-Feb. 1, 2006, The Summit meeting facilities, Greensboro, NC.

Spring Meeting of the Southern Division of the American Fisheries Society – Feb. 8-12, 2006, San Antonio, TX.
<http://www.sdafs.org/meetings/2006/>.

Stream Restoration in the Southeast: Accomplishments and Opportunities – Oct. 2-5, 2006, The Westin Charlotte, Charlotte, NC. Learn about stream restoration planning, design, construction, financing, and monitoring in the Southeast. This biennial conference will include research presentations, restoration case studies, posters, industry exhibits, networking opportunities, and tours of local stream restoration projects.
www.ncsu.edu/sri/2006conference/savethedate.html

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. djcoughl@duke-energy.com

Employment Opportunities

Wildlife/Fisheries Biologist, Inland Fisheries Division, NCWRC, Kinston, Lenoir Co., NC - This is advanced technical support work in fisheries management and research. The employee will conduct and evaluate well-defined phases of survey, research, and management projects and assist a District Fisheries Biologist through independent collection, organization, analysis, and evaluation of data. The duties are performed independently under the general supervision of a District Fisheries Biologist and are reviewed through oral and written reports. See http://www.ncwildlife.org/fs_index_commission.htm for employment opportunities and vacancy announcements. Salary: \$ 29,195 - 44,571 DOE. Closing Date: September 30, 2005. A state application for employment (Form PD-107) is required. Please indicate Job #40526 on State application

Wildlife/Fisheries Biologist II (Nongame Project & Planning Biologist), Inland Fisheries Division, NCWRC, Triangle Area, NC - This position will provide the oversight, conservation planning, and coordination for the continued development, maintenance, and future revisions of North Carolina's Wildlife Action Plan (Plan). Duties will include coordinating communication and partnership opportunities with stakeholders, implementation and revision processes of plan, providing committees coordination Plan processes,

supporting inter-state coordination, and for media/outreach support efforts. The Plan is a federally mandated wildlife conservation plan that allows WRC to qualify for State Wildlife Grant Program funds. To date, these funds have accounted for between 1-2 million dollars annually coming to the agency for nongame work. The position will also work with the chairperson of the Commission's Nongame Wildlife Advisory Committee (NWAC) to provide and coordinate staff support for the conduct of the Committee's business. See http://www.ncwildlife.org/fs_index_commission.htm for employment opportunities and vacancy announcements. Salary: \$ 33,790 - \$ 52,065 DOE. Closing Date: October 17, 2005. A state application for employment (Form PD-107) is required. Please indicate Job # 40807 on State application.

Additional Employment Opportunities - Fishery related jobs can be found on the AFS web site at:

<http://www.fisheries.org/jobs.html>. This site also offers links to job postings on non-AFS web sites.

If you have a fishery-related job opening and would like to post it in the next NCAFS Newsletter, please send your announcement to the newsletter editor. djcoughl@duke-energy.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/>.

Additional links can be found courtesy of Dr. Mike Allen and the Southern Division, AFS. <http://www.sdafs.org/links/msallen1.htm>