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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](mailto:jerry.finke@ncwildlife.org)).

***President's Message***

Diversity...quite a fitting theme for the 139<sup>th</sup> Annual AFS meeting in Nashville this past month. There were so many pertinent issues and topics discussed that I struggled continuously with deciding which talk to attend. The Tennessee Chapter did an excellent job as meeting host; I personally consider the 2009 meeting to be one of the best that I have attended (Charlotte 1999 notwithstanding of course!). Toward the middle of my stay in Nashville, I was pleasantly taken aback as I considered the contribution of NCAFS members on the national scene. I guess I had never really thought about it, but the numbers of our own that preside over sections, committees and divisions is impressive. Not to mention the significant contributions of our members by way of organizing symposia, preparing posters and delivering oral presentations. NCAFS was definitely working the Nashville scene! Volunteerism is strong within NCAFS, and I want to personally thank each of you for your various levels of commitment. Your participation definitely makes a difference!

*Chad Thomas, NC AFS President*

***Secretary-Treasurer's Report***

[Minutes of the August 2009 EXCOM Meeting.](#)

*Submitted by Kevin Hining, Secretary-Treasurer*

## ***NCSU Student Subunit Report***

The NCSU Student Subunit has been busy this summer lining-up speakers from a number of different organizations and a documentary for our fall subunit meetings, participating in a variety of outreach activities, and attending the national AFS professional meeting.

The start of the fall semester had great attendance with around 45 people at our September meeting where Frank Princiotta, the Director of Air Pollution Prevention and Control in the Division of the National Risk Management Research Laboratory for the USEPA, spoke about the challenges of mitigating climate change. We greatly appreciate Frank's time and the great presentation he gave at our meeting. Our next meeting will be held on Oct. 7<sup>th</sup> at David Clark Laboratory, NCSU, and will feature a limited release 40 minute documentary entitled "American Fisheries, a cautionary tale" about the dramatic tale of the North Atlantic cod fishery. A discussion will follow the documentary. Thanks again to Frank Princiotta for volunteering your time to talk to our student subunit and our own Lindsay Glass for providing the idea and the effort for the documentary.

Late August brought the national AFS meeting held in Nashville, TN. The sub-unit had an excellent showing with nine students presenting presentations or posters: Lindsay Glass, Marybeth Brey, Julie Harris, Dana Sackett, Bethany Galster, Josh Raabe, Mike Waine, Dan Weaver and Scott Favor. Congratulations to everyone on a job well done. Our next big event is the 2010 Southern Division AFS meeting that will be hosted by North Carolina and replace our annual state meeting. The NCSU SFS raffle chair, Sarah Friedl, along with NC-AFS officer, Kim Baker, are doing an excellent job preparing for the upcoming raffle for this meeting. Thank you, Sarah and Kim, for dedicating your time and effort to make this event a success. Marybeth Brey also received the 2009 John E. Skinner Memorial Fund Award. Congratulations Marybeth!



*Several subunit members enjoying the North Carolina social at the national AFS meeting.*

Subunit members have also participated in outreach projects this past summer. Our members volunteered to help with a mark-recapture class, FW 312, estimating population parameters at the Bull Test Pond at the Butner Beef Cattle Facility with Dr. Tom Kwak. Our own Josh Raabe volunteered as a judge with Dr. Joe Hightower at a 4-H Youth Development competition. Subunit co-president, Zach Feiner, also attended the Undergraduate Student Cookout to recruit undergraduates into our organization and was successful in bringing a couple to our first meeting. Outreach events on the SFS calendar for the near future include helping the NCWRC with sampling the Tar River for Roanoke bass and setting up the tri-fold at the National Hunting and Fishing Day event on Sat., Sept. 26<sup>th</sup>, where SFS members will also be teaching kids to fish.



*Student Fisheries Society members pose in front of a life-size replica of the Parthenon at the "spawning run" in Nashville, TN. Two of our members placed at 2nd and 3rd in their age groups.*

The next subunit meeting of the semester will be held in David Clark Labs 102 on N.C. State's north campus at 6:30pm, Wednesday, Oct. 7<sup>th</sup>. We welcome all state members to our monthly meetings. Come join us for good company and free food! Again, thank you to Frank for speaking at our meeting! If you have any questions for the subunit please don't hesitate to contact Dana Sackett ([dana\\_sackett@ncsu.edu](mailto:dana_sackett@ncsu.edu)) or Zach Feiner ([zsfeiner@ncsu.edu](mailto:zsfeiner@ncsu.edu)), student subunit co-presidents.

### ***Environmental Concerns Committee***

The return of rain and a soured real estate sector are taking a toll on some North Carolina trout streams. Since the drought, stream flows have increased and improved spawning habitat. However, erosion and sedimentation are increasing where road construction progress has stopped in some residential subdivisions. An example of this is shown below.



*Brook trout stream in February 2007 during initial phase of residential subdivision road construction.*



*Same brook trout stream accumulating fine sediments in September 2009 after residential subdivision road construction ceases due to financial difficulties.*



*Failed sediment screen on a road cross drain inlet in the brook trout stream watershed, September 2009.*

Unlike mining, there is no bonding requirement under sediment and erosion control programs. Consequently, there is no ready recourse for addressing failing sediment and erosion best management practices and unstable roadways.

Local governments and government councils are beginning to scrutinize more closely the effects of development on natural resources, particularly in steep slope areas. And some have already enacted or are developing more stringent guidelines and requirements. Fishery professionals can assist these efforts by providing information about the responses of fishery resources in developing watersheds. The Environmental Concerns Committee (ECC) is interested in hearing from Chapter members about relevant research that has been conducted or that is planned in North Carolina. This information would be useful to the ECC and assist with implementing strategies outlined in the Chapter's 2004 "sediment" resolution.

*Submitted by Dave McHenry, Environmental Concerns Committee Chair*



## **News from Around North Carolina**

### **The Oriental Weatherfish in North Carolina**

Submitted By Bryn H. Tracy, NCDWQ and Peter Schneider, City of Greensboro

Another non-indigenous species is reported for the first time from North Carolina. The Oriental Weatherfish, *Misgurnus anguillicaudatus* (Cantor 1842) (Figure 1), was collected at three sites in the upper Haw River system. Two specimens were collected by Jeff Deberardinis and Michelle Simonson, while Victor Holland and Bryn were chasing Crescent Shiners and Spottail Shiners on the other side of the streams, with the North Carolina Division of Water Quality. Another specimen was collected by staff from the City of Greensboro's Water Resources Department (Peter Schneider, Rebecca Wells, Debbie Shoffner, and Roy Graham) with valuable assistance from Chuck Smith, Guilford College. The specimens were from:

1. Varnals Creek, SR 2116, Alamance County, 124 mm total length (TL), collected April 13, 2009;
2. Haw Creek, SR 2158, Alamance County, 148 mm TL, collected April 13, 2009; and
3. South Buffalo Creek Thurston Avenue, Guilford County, 145 mm TL, collected June 22, 2009 (Figure 2).



Figure 1. The Oriental Weatherfish, *Misgurnus anguillicaudatus* (Cantor 1842).  
Photo courtesy of Noel M. Burkhead, USGS, Gainesville, FL.

The specimens were found in slackwater pools and along the stream margins associated with silts, sands, and small woody debris. The Varnals and Haw creek sites are within 2.6 miles of one another, but the site on South Buffalo Creek is approximately 50-60 stream miles upstream (Figure 2). Separating the lower two sites from the upper site are four dams (three across the Haw River with two at Swepsonville and one at Altamahaw and a dam across Reddy Fork at Ossipee). It is thus likely that the three specimens represent two, widely separated introductions. However, it is not known if the species is established at any of the sites or is found at other sites within the Haw River system. Future surveying would be necessary to determine if the species is established at these locales and is dispersing into new streams throughout the upper Haw River system. Seven other non-indigenous species were collected from these three sites: Rosefin Shiner, Crescent Shiner, Fathead Minnow, Red Shiner, White Sucker, Green Sunfish, and Redear Sunfish. The specimens will be vouchered at the North Carolina State Museum of Natural Sciences (<http://www.naturalsciences.org/research-collections/research-specialties/fishes>).

The Oriental Weatherfish, also known as the Dojo, Weather Loach, Japanese Weatherfish, and Amur Weatherfish, is native to eastern Asia. In the United States it has been reported across the country from Washington to Florida, from New York to California, and from Illinois to Louisiana. Sources of the illegal introductions range from the aquarium trade, bait fish and aquarium releases, Asian food markets, to biological supply companies supplying specimens for developmental biology and embryology courses. Specimens may grow up to 250 mm TL and feed on benthic invertebrates and detritus. The coldwater species is tolerant of low dissolved oxygen concentrations and can aestivate by burrowing into the mud to withstand droughts.

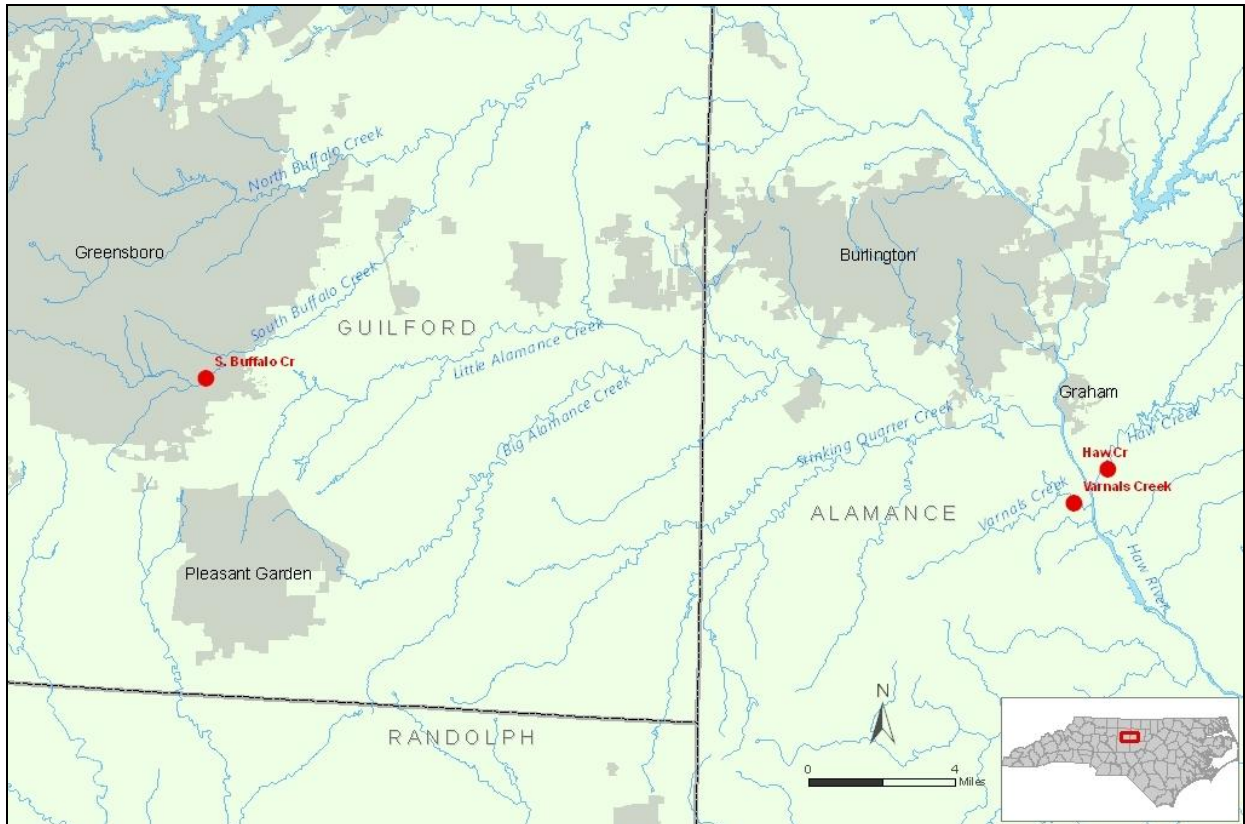


Figure 2. Distribution of the Oriental Weatherfish in the upper Haw River system, North Carolina. Map courtesy of Mark Hale, DWQ.

For additional information and citations on this species, please consult: Nico, L. and P. Fuller. 2009. *Misgurnus anguillicaudatus*. USGS nonindigenous aquatic species database. Gainesville FL.

<<http://nas.er.usgs.gov/queries/FactSheet.asp?speciesID=498>> Revision Date: 8/6/2009.

**Student Travel Awards for the Nashville AFS meeting,**  
*Submitted By Joe Hightower, NCSU*

Two NCSU students received Skinner travel awards at the 2009 American Fisheries Society meeting in Nashville, TN. The John E. Skinner Memorial Fund was established to provide monetary travel awards for deserving graduate students or exceptional undergraduate students to attend the AFS Annual Meeting. NCSU doctoral student Marybeth Brey received a Skinner award and presented a talk entitled "*Competitive and predatory interactions of newly stocked striped bass fingerlings*". The talk is one part of Marybeth's research on competition and food webs for reservoir fishes.



*Marybeth Brey with a largemouth bass collected during a Student Fisheries Society lake assessment project.*



*Dan Weaver, conducting a snorkel survey in the North Toe River, Spruce Pine.*

MS student Dan Weaver received a Skinner Honorable Mention and presented a talk entitled "*Accuracy of snorkeling techniques for estimating stream fish populations*" based on his field work in the North Toe River. The students were recognized in the Education Section meeting and in the AFS Business Meeting.

Josh Raabe and Mike Waine received 2009 Student Travel Awards from the NC AFS Chapter. Josh's presentation was entitled "*Assessing benefits to American shad of habitat restored by dam removals*" based on his research in the Little River, a tributary to the Neuse River near Goldsboro. Mike's talk was "*Assessing spawning runs of anadromous fishes using split-beam and multi-beam sonar systems*", based on his work in the Roanoke River near Williamston.



*Josh Raabe, with an American shad captured at his weir operated on the Little River near Goldsboro*





*Mike Waine, with the first American shad of the field season in 2008, on the Roanoke River near Williamston.*

All the students appreciated the travel support and the opportunity to network with researchers from other parts of the country.

***New Outreach Committee Chair!***

*Submitted by Chad Thomas, NCWRC*

Chris Wood has volunteered to serve as Co-chair of the Education and Outreach Committee with emphasis on our outreach programs. NCAFS has been busy this year in the area of outreach, and Chris would welcome your ideas (and your assistance?) as the committee develops a priority list of upcoming activities. Feel free to contact Chris at [chris.wood@ncwildlife.org](mailto:chris.wood@ncwildlife.org). Thanks Chris!

***Fly Fishing 101: Learning to Catch Fish Without Electricity,***

*Submitted By Patrick Cooney, NCSU*

The Bradford Pear trees had just won their annual race to be the first tree to produce buds, and the long afternoon shadows still harbored temperatures that required a warm beverage to chase away the chills. From across the pond I spotted the 9-foot 5-weight dancing in a deep arc that needs only be described by two words: Fish on!!!! It was the huge reward for a story that had started months before.

On a January hunt, I met a fly fisherman who also happened to be a fly fishing instructor. He was unlike any fisherman I had previously encountered, as I had to do my own research later to find details of his vast fishing adventures, some of which grace the pages of "Field and Stream". He must have still been riding an adrenaline high from his successful hunt that day that I met him, because somewhere in the 30 minutes it took us to dress his prized game, he came up with the idea for his craziest fish adventure yet: teach a cohort of Student Fisheries Society (SFS) students to fly fish.

Scott Wood, the unfortunate...er, fortunate person to have committed to such an endeavor, has many years of instruction under his belt working at The Great Outdoor



Provision Company, preparing him well for the group of students we put together for that early Spring day. Interest in the fly fishing lesson was strong among the SFS membership, and when the day arrived the official count was seven students: myself and six ladies. Scott's exact reply, "Great—that means we will have 6 people who will listen! So far I've found two groups that always pay attention: women and Marines."



*Fly fishing instructors Scott Wood and Jim Coveney (on far right in back row, respectively) with a crew of cold but enthusiastic Student Fisheries Society members attempting to imitate fish.*

Scott was correct in his early assessment that the ladies would excel in the lessons. He covered everything from rods to reels, fly lines to leaders, knots and tippets, and finally the whole reason the sport was invented—the flies. Some resemble all walks of life, while others did not resemble anything at all. One of the most important lessons I learned from the entire day was that although fish often scrutinize the flies and are selective in their feeding, it is good that they do not scrutinize the flies as tediously as my fellow classmates. I can all but guarantee that Scott had never received such strong fashion critiques for his homemade flies as, "that one is having a bad hair day," or my personal favorite, "that one looks like a dead baby beaver."

Once we had the gear covered, we went to the dock and  *jerked* the fly rods around.... I mean....we  *fluidly* cast the fly line and tippet into spring fed Clearwater Lake near Chapel Hill. It wasn't long before I realized that the ladies would take to this faster than I would, as I kept trying to use my whole arm and body to get the "fly" out there. Okay, not a true fly fishing "fly", but it was really just a very small tuft of yarn tied to the tippet, as we were not yet to be trusted in a group setting with sharp implements.

Jim Coveney, another great instructor who taught the course with Scott, kindly explained the mechanics and fluidity of the motion every time he walked past me, then moved to the next person, knowing that I would soon digress to my old tried and tested baitcaster heaving motion. If I had to throw hard to get a quarter pound golden shiner out on a baitcaster, I would have to throw even harder to get this little fly out there....right?

By the end of an hour, and a few sore shoulders later, everyone, including a chucker like myself, had at least one decent cast in two. It was officially time to tie on a real fly (with a hook!), and give it the old college try. We had learned about the gear and the casting, but now would come the fishing, when we actually had to make realistic presentations of our “dead baby beavers” to the fish.

From first arrival, until the first cast I made to catch a fish, I had been surveying the pond and plotting my mission. The primary goal for the group was to learn how to cast so we could fish on our own. But catching even a small fish today would be an added bonus, right? Someone in the group would soon be fighting a huge bonus.

I settled into a prime spot, watched the surface of the water, got into a rhythm, and cast for a while. I was so focused on the casting that I hardly noticed the flash of silver take my fly. A rainbow trout danced on the end of my line and yanked its head violently from side to side, as if it were my dog trying to yank the head off of his favorite stuffed animal toy. Jim told me to keep the tip up, and I landed and released the tiny guy to fight another day. “What an end to a great day,” I thought, as I sat back to soak up some rays to warm myself, and watched the other members of my cohort cast lazy bends of line over their heads and return them to the water as gently as they would a sleeping baby to its crib. The hypnotic cadence allowed me to relax and enjoy the end of my day. And then it happened.

I saw the bend in the rod across the pond near a little white bridge on the north edge. I set my rod down and bolted in the direction of the action like an ice fisherman going full steam to tend to a sprung tip-up at a hundred paces. The fish put up a great fight, and the student put up a better fight. The art of retrieving a hooked fish on fly is as splendid as the casting. The fine line one must constantly balance between power and finesse, while the fish attempts to tip the balance in its favor. Today, the scale would tip in favor of the angler—all of the day’s instruction had come full circle. The result of a good battle was netted and presented to the victor for a quick photo and release.

Julie Harris had landed her first fish on fly. A 22 inch, 4 pound rainbow trout. Not bad for a rookie, although I doubt we should allow her to claim rookie status anymore; not after a fish like that.



*Julie Harris, a Student Fisheries Society member, with her first fish on fly, a 4 pound rainbow trout out of Clearwater Lake, Chapel Hill, NC.*

Following a few more catches by other individuals of bluegill and largemouth bass, we called it a day, and headed home. I can honestly say that all seven of us will continue with fly fishing. We all catch fish with other methods through our research, but who could not enjoy the skill and finesse of this fine sport?

After a day of learning how to fly fish, I can safely say two things. First, Scott Wood and Jim Coveney are both artists with a fly rod that can teach the skills to any aspiring fly fisherperson, and second, if you are ever going to learn how to fly fish, take it up with several ladies so that you can watch them and mimic all of their good habits. Who knows, maybe one will let you catch the big one next time.

### ***NCAFS Outreach Brochure Update***

*Submitted by Chad Thomas, NCWRC*

Thanks in large part to the efforts of Kent Nelson, NCAFS mailed 190 copies of our new outreach brochure to state and federal legislators, city and county officials, and chamber of commerce representatives throughout the coastal region. Jodie Owen and Diane Renzi also volunteered a significant amount of their time toward the printing and mailing of the brochure. Positive feedback continues to be received. You can check out the brochure, which outlines the economic benefits of our state's recreational fishing [HERE](#).

### ***2009 Nancy G. Pollock Dissertation Award***

*Submitted by Joe Hightower and Jeff Buckel, NCSU*

Dr. Nate Bacheler (NC State University, PhD '08, Zoology) has been awarded the 2009 Nancy G. Pollock Dissertation Award for the College of Agriculture and Life Sciences. Nate did his graduate research under Dr. Jeff Buckel and Dr. Joe Hightower. The title of his dissertation is: "*Factors influencing the mortality and distribution of subadult red drum in North Carolina*".



This prestigious award is sponsored by the NC State Graduate School and is designed to reward outstanding scholarly research that has a positive impact on both the North Carolina economy and the quality of life for all its citizens. Many of Nate's findings have been used in the assessment and management of red drum at the state and regional level. He has also published three articles so far (two on tagging models, one on movements) with two others at various stages of journal review. Nate is currently an Assistant Professor in the Department of Natural and Applied Sciences at University of Wisconsin - Green Bay, and, as of September 10, 2009, has a brand-new baby boy. Way to go Nate!

**Workshop Announcement**  
**Forwarded By Dave Coughlan**

**River Course 401: Construction Practices for Stream Restoration**

Oct. 13-14, 2009

Banner Elk Town Hall, Banner Elk, NC

[http://www.ncsu.edu/srp/construction\\_training.html](http://www.ncsu.edu/srp/construction_training.html)

This two day workshop provides practical information and field observation opportunities for contractors and construction oversight personnel involved in stream restoration construction. Participants will learn about stream restoration design concepts, in-stream structures, erosion and sediment control, streambank stabilization, and project bidding. Participants will visit an active, large-scale construction project to learn about installation of stream restoration structures, stabilization techniques, and vegetation installation. A tour of a restoration constructed in 2008 will also allow participants to see a completed project. Members of the NC Ecosystem Enhancement Program will be on hand to answer questions. An experienced contractor will demonstrate construction techniques and answer questions related to equipment, materials, and project management.

**Continuing Education:**

6 PDHs per day is available for professional engineers.

For more information and to REGISTER ONLINE, please visit:

[http://www.ncsu.edu/srp/construction\\_training.html](http://www.ncsu.edu/srp/construction_training.html)

For a complete list of the River Course series, please visit:

<http://www.ncsu.edu/srp/rivercourse.html>

**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/>.