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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

I'm sure many of you have spent countless hours over the last few months in the field, be it lunging at fish from the bow of an electrofishing boat, sloshing up a stream wearing a backpack shocker, snorkeling for mussels, or engaged in some other type of sampling activity. The busy spring field season usually comes at us before we are ready and threatens to bury us in an avalanche of long days and fast-food wrappers. As a friend of mine likes to phrase it, surviving the chaotic spring field season is akin to "drinking from a fire hose." Picture that in your mind for a moment...fairly accurate, don't you think?

As this spring trudged on, I couldn't help but find myself thinking back to an article from the April edition of *Fisheries*, partially entitled "Counterintuitive responses of fish populations to management actions." The word "counterintuitive" doesn't exactly invoke confidence in one's ability to understand an ecosystem. I couldn't help but conjure up replacement titles for the article as I read through the case studies. "We were wrong" was at the top of my list. At some point, I think we can all admit to making management decisions based on our best available information that ultimately turned out to be unnecessary and ineffective. The kicker, as the article suggests, is to view these "failures" instead as opportunities to learn from the unanticipated outcome. Sounds encouraging anyway. If you haven't had a chance to read the article (authored by Bill Pine and others), I'd recommend that you give it a look. It's an interesting read, and the authors identify reasonable (intuitive?) explanations for the counterintuitive results that were common to each case history (hint: think juvenile survival patterns).

Perhaps the best part about spring for a fish biologist is its conclusion. If you feel that way too, then congratulations! Summer is here and the AFS 139th Annual Meeting in Nashville is closing in fast. If you get the chance to attend, make note that there is a special North Carolina AFS evening social at 8:30 on Monday, August 31st. Hope to see you there!

Chad Thomas, NC AFS President

NCSU Student Subunit Report

With a highly productive 2008, the NCSU Student Subunit started 2009 off saying “thank-you” to past-presidents Steve Midway and Ben Wallace for their excellent work in the past year that earned the subunit the Best Student Subunit Award for 2008. Newly installed officers included co-presidents: Zach Feiner and Dana Sackett, secretary: Lindsay Glass, treasurer: Will Smith, and undergraduate president: Taurean Brown.

The start of the semester had great attendance with around 45 people at our January meeting where Benjamin J. Ciotti, a student from the University of Delaware finishing up his Ph.D. under advisor Dr. Timothy Targett, spoke about the spatial and temporal growth dynamics of juvenile plaice (*Pleuronectes platessa* L.) in West Scotland and the Irish Sea. We greatly appreciate Ben’s time and the great presentation he gave at our meeting. At our February meeting, Scott Van Horn, recently retired from the NC Wildlife Resources Commission, talked to us about federal initiatives, current policy, and NCWRC



Several subunit members accepted the AFS best student subunit award at the Southern Division AFS Meeting in New Orleans, LA.

management tools used for aquatic invasive animal species in North Carolina. Scott gave a fun and informative talk about a topic that is near and dear to many of our members’ research projects. In our March meeting we learned about the pollutant sensitivity of the Cape Fear shiner (*Notropis mekistocholas*) and about the role of the U.S. Fish and Wildlife Service in North Carolina by Tom Augspurger, an ecologist with the U.S. Fish and Wildlife Service. Also, we were very grateful to have Patty Matteson from the U.S. Fish and Wildlife Service there to talk about a new environmental education program called “Shad in the Classroom” that gives students a hands-on opportunity to learn about the importance of water quality, aquatic biology, watershed management and conservation. As a result of the presentations, members of our subunit have volunteered to help the “Shad in the Classroom” program. For the last meeting of the semester we had the honor of learning about science, the media and how to work with the press from the prestigious environmental reporter and author, T. Edward Nickens. Thanks to Ben Ciotti, Scott Van Horn, Tom Augspurger, and Eddie Nickens for volunteering your time to talk to our student subunit.

February brought the annual NC-AFS meeting held in Burlington, N.C. this year. The sub-unit had an excellent showing with five students giving presentations: Ben Wallace, Marybeth Brey, Julie Harris, Joe Smith, and Dan Weaver. Dan Weaver also received the Richard L. Noble Award for the best student paper for the North Carolina Chapter for his talk entitled, “Accuracy

of snorkeling techniques for estimating stream fish populations.” Congratulations Dan! In addition to the excellent student talks, the subunit also held their annual raffle at the meeting with prizes such as a muzzleloader, tickets to a Carolina Hurricanes game, and the amazing art of Duane Raver Jr. The subunit raised \$736 to assist with food costs at our monthly meeting, student travel, and community presentations in 2009! Thank you to all who purchased tickets and helped at the meeting! Next year’s raffle will be held on a much larger stage because North Carolina will be hosting the Southern Division Meeting in place of our state meeting. For this reason we created a new NCSU SFS position, the 2010 raffle chair. Sarah Friedl volunteered to take on this position and work with NC-AFS officer, Kim Baker to create a great raffle for the 2010 Southern Division Meeting. Thank you, Sarah and Kim, for dedicating your time and effort to make this event a success. The 2009 Southern Division meeting was in New Orleans, LA this year with NCSU SFS members Joe Smith, Dan Weaver, and Marybeth Brey presenting their research. Marybeth Brey also received the Robert M. Jenkins Memorial Reservoir Research Scholarship. Congratulations Marybeth!



Student Fisheries Society members helped judge a science fair for Fred A. Olds Elementary School.

Subunit members have also participated in outreach projects this past semester. Our members volunteered as judges for the annual Fred A. Olds Elementary School science fair held on February 5th and 6th. We saw a number of future scientists present their results at this fair and had an excellent time talking to the students about their science projects. We also had SFS members teach students at Wake County 4-H Youth Development about fish tagging studies and population estimates. The kids estimated a population of “fish” (M&M’s) from the number of “tagged fish” (Skittles) they “caught” (scooped out with a spoon). Thanks to Mary Radlinski for providing the lesson plan for this class. Subunit members also participated in the NCSU Wildlife Alumni Reunion event by updating and displaying our tri-fold and talking to alumni and guests about our recent activities. Members also volunteered to run the cane pole fishing event at the annual Yates Mill Pond Heritage Day. Everyone had a good day at this event while teaching kids how to bait a hook and catch a fish. Many of our members also enjoyed a day of learning how to fly-fish together thanks to Scott Wood at Great Outdoor Provision Company.



SFS members ran the cane pole fishing event at the annual Yates Mill Pond Heritage Day

The first subunit meeting of next semester will be held in David Clark Labs 102 on N.C. State's north campus at 6:30pm, Wednesday, Sept. 9th. We welcome all NC-AFS members to our monthly meetings. Come join us for good company and free food! Again, thank you to Ben, Scott, Tom and Eddie for speaking at our meetings! If you have any questions for the subunit please don't hesitate to contact Dana Sackett (dana_sackett@ncsu.edu) or Zach Feiner (zsfeiner@ncsu.edu), student subunit co-presidents.



Members of SFS posed for the camera after a great day of learning how to fly fish at Clearwater Lake thanks to Scott Wood of the Great Outdoor Provision Company.

Submitted by Dana Sackett, NCSU Student Subunit Co-President

Environmental Concerns Committee

Hooray, the drought has abated! The Chapter received a response from the North Carolina Environmental Management Commission to the water conservation letter that was drafted by the ECC (Environmental Concerns Committee) (see website). As noted, the EMC is committed to implementing Session Law (S.L.) 2008-143 which mandates, in part, the adoption of water supply and shortage plans by local governments and formation of a Drought Management Advisory Council. The importance of this legislation and other conservation efforts should increase given the numerous public water supply improvement projects being undertaken across the state with federal stimulus monies. Once the economy recovers and drought returns, there will likely be unprecedented competition and conflict among various water users, including fisheries.

U.S. Drought Monitor

Southeast

June 9, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	97.5	2.5	0.0	0.0	0.0	0.0
Last Week (06/02/2009 map)	95.2	4.8	0.7	0.0	0.0	0.0
3 Months Ago (03/17/2009 map)	13.6	86.4	41.9	11.8	1.6	0.0
Start of Calendar Year (01/06/2009 map)	65.3	34.7	15.7	5.3	2.8	0.0
Start of Water Year (10/07/2008 map)	35.2	64.8	41.8	20.8	9.4	1.9
One Year Ago (06/10/2008 map)	12.6	87.4	54.6	24.6	8.2	0.0



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

<http://drought.unl.edu/dm>



Released Thursday, June 11, 2009
Author: Brian Fuchs, National Drought Mitigation Center

In other news, the ECC continues to investigate the issue of hemlock mortality from wooly adelgid infestation and the potential implications on fishery resources in North Carolina. Some research has documented tangible effects on fish communities in the northeastern United States while one study in the southeast found little temperature difference among high elevation streams under hemlock or hardwood canopies, the latter being the likely long-term result of hemlock mortality. The ECC will continue this effort and consider development a white paper with suggestions for any future action on this issue.

And, in coastal fisheries habitat news (I do remember the coast), the U.S. Army Corps of Engineers has approved PCS Phosphate's permit request to impact almost 4,000 acres of wetlands and open water and about 22, 000 feet of stream channels along the Pamlico Sound in Beaufort County for a future mine expansion. (see <http://www.saw.usace.army.mil/pao/NewsReleases/PCS%20Phosphate%20ROD%20signed%20this%20afternoon.pdf>) Some of the impacts involve designated Primary Nursery Areas for commercially and recreationally important stocks.

Submitted by Dave McHenry, Environmental Concerns Committee Chair

News from Around North Carolina

Fish Plates, By Bryn H. Tracy, NC DWQ

Recently while driving through Wake County near Fuquay-Varina, I spotted a license plate on a small pickup truck that read: “*P. rex*”. My first thought was that the driver was Chris Wood, NCWRC's Eastern Aquatic Wildlife Division Biologist who lived nearby. Perhaps he had purchased the plate from NC DMV after netting *Percina rex*, Roanoke Logperch, the last two years in the Mayo and Smith rivers (see NC AFS September 2008 newsletter – “*A New Species is Discovered in North Carolina, the Federally Endangered Roanoke Logperch (Percina rex) by Chris Wood, NC WRC*”). I followed up on my observation with an e-mail to Chris, but he responded that it wasn't his, but he also wondered whose it might be. This got me to thinking – “What personalized license plates could I get for my Subaru that pertain to fish names, fishing, or ichthyology?” Later, I queried DMV's license plate web page (<https://edmv-sp.dot.state.nc.us/sp/PersonalizePlate?serviceType=EXP>) trying all sorts of combinations. Each plate can have up to eight spaces made up of letters, numbers, and/or special characters with certain characters counting as one-half or two spaces. Here is what I found:



- **Not Available** (either already purchased or deemed inappropriate, offensive to good taste (not one's taste buds), or decency by DMV staff):
 - ❖ Barbel, Creek, Sturgeon, Bowfin, Mooneye, Shad, Herring, Minnow, Chub, Goldfish, Sucker, Redhorse, Bullhead, Catfish, Musky, Umbra, Trout, Br Trout, S trutta, Brookie, Speck, Striper, Mullet (perhaps the hair style?), Pomoxis, Sunfish, Flier, Bluegill, Crappie, Bass, S Bass, LMB, P. rex, and Walleye.
 - ❖ Perhaps, NCSU's famous paleontologist, Dr. Mary Schweitzer, has P. rex, because T. rex was already taken? I wonder who has these other plates? Unfortunately, DMV does not release this information to the public.
 - ❖ Three that I know of that are not available are -- NCSMFISH and MONACHA (in NC) and SALMO T (in VA). Do you know who might have these?
- **Available**
 - ❖ Lamprey, L. osseus, LN Gar, Amia, A. calva, Elver, Amer Eel, Anguilla, Alosa, Menhaden, G Shad, Am Shad, Alewife, Anchovy, Notropis, C carpio (for Common Carp or River Carpsucker), C Carp, Grass C, Cyprinus, C idella, H regius, E laurae, Hybopsis, Nocomis, N raneyi, C zanema, C nivea, Luxilus, N procne, L ardens, P oreas, S lumbee, Shiner, G Shiner, R Dace, G Carp, BH Chub, R Chub, R Shiner, Spottail, TN Dace, BN Dace, LN Dace, SH Chub, Crk Chub, Ictiobus, I niger, AU RH, AG RH, BLK RH, V-lip RH, W Sucker, Jumprock, Ameiurus, A catus, A melas, Noturus, N flavus, Stonecat, Madtom, FH Cat, Pickerel, Esox, E niger, O nerka, Salmo T, RB Trout, BK Trout, Speck TR, P Perch, Menidia, Lucania, Sculpin, Morone, Perch, W Bass, W Perch, Bream, E obesus, M coosae, R Bass, ROA Bass, Warmouth, SM Bass, C Darter, E mariae, E zonale, E nigrum, E collis, P sciera, P crassa, P evides, Y Perch, Darter, Logperch, Sauger, FW Drum, Fish, Pisces, BP Shock, Gillnet, Otolith, Adipose, Opercle, Pectoral, Caudal, Anal Fin (wonder how that escaped the censors?), River, PD River, Peedee R, Fish Tax, FW Fish, Ichthyol, Ich Fish, and Luv Fish.

I do not believe I have exhausted all the possibilities, there may be more available fish names lurking out there. Vanity plates are available from DMV for \$30 in addition to your regular license fee; \$10 of the \$30 annual fee goes in the Special Registration Plate Account, \$15 goes in the Natural Heritage Trust Fund, and \$5 in the Parks and Recreation Trust Fund. So, if money is burning a hole in your pocket and you rather have tailgaters paying more attention to your bumper than their cell phones while sitting in grid-locked I-40, I-77, or I-85, by all means buy a fish plate to go!

BAE 590M - Introduction to Fluvial Geomorphology - Distance Education Course
Forwarded by Dave Coughlan

This Fall, NCSU will again offer BAE 590M ,Introduction to Fluvial Geomorphology as a Distance Education Course. Fall classes begin Aug 19.

Course Description: This distance course provides an introduction to applied fluvial geomorphology as it relates to natural physical stream processes. Students will learn about watershed hydrology, stream gage data analysis, bankfull stage identification, hydraulic geometry relationships, stream channel assessment and classification, stream stability and channel evolution. Students will conduct independent field studies to measure stream morphology, identify bankfull stage, characterize stream bank erosion, analyze substrate, and assess channel stability. Several stream classification systems will be reviewed including the Rosgen classification system for natural streams. Students will also learn how to graph and manipulate stream morphology parameters from field survey data and aerial photos. 2 Credit Hours.

Course Scope and Organization: The course will be split up into 8 modules. The topics that will be covered include: Basic Hydrology, Bankfull Stage Identification and Verification, Regional Curves for Hydraulic Geometry Relationships, Stream Dimension, Pattern and Profile, Channel Substrate, Stream Classification, Channel Evolution, Streambank Stability, Shear Stress and Bedload Transport.

For more information, contact Dr. Greg Jennings, jennings@ncsu.edu, or Barbara Doll, barbara_doll@ncsu.edu.

You may register for the course at: <http://distance.ncsu.edu/index.html>

Spotlight on Students and Young Professionals

Zach Feiner, MS Student, NCSU – A Midwesterner for most of his life, Zach grew up in beautiful Spring Green, Wisconsin, near the banks of the Wisconsin River. Zach attended the University of Wisconsin, Madison, and performed in the marching band all four years he attended (he assures us that the band's suspension was based on activities that happened 'decades' before he got there). After graduating in 2007, Zach took a position with the Arizona Game and Fish Department working on threatened and endangered species. Following these educational experiences, Zach decided it was time to do some serious book learnin' and headed south, where he worked as a technician in Joe Hightower's lab for several months before joining our graduate program last summer.

Zach's MS research is focused on white perch invasions in NC waterbodies. He's examining life history data and ecological interactions in large reservoirs in an effort to determine why white perch are extremely successful in some systems but not others. In combination with a new MS student starting this fall (who will be working on smaller systems), Zach hopes to provide insight into management strategies that might prevent further invasions and address current problems. His first summer of data collection has been a major success and all indications are that he's headed for big things!

Zach experienced a warm (if somewhat suspicious) welcome to NC AFS in February, when as acting raffle coordinator he won the grand prize. Zach – welcome to NC!



Submitted by Derek Aday, NCSU

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/>.