



AMERICAN FISHERIES
SOCIETY



NEWSLETTER

DECEMBER 2004

INSIDE THIS ISSUE

[President's Message](#)
[Secretary-Treasurer's Report](#)
[Nominations Committee and Ballot](#)
[2005 Program Committee](#)
[NCSU Student Subunit Report](#)
[Awards Committee](#)

[Education Committee](#)
[Environmental Concerns Committee](#)
[News from around North Carolina](#)
[Meetings of Interest](#)
[Employment Opportunities](#)
[Valuable Links](#)

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 – Mallory Martin

AFS.....Behind the Scenes in Your Chapter....The Beehive Analogy

As we come to the end of yet another calendar year, perhaps a little reflection is in order. Being involved in AFS has been both an enlightening and rewarding process for me. Maybe the "Beehive Analogy" can help me explain what I mean.

How is AFS like a beehive? Well, honeybees are socially complex animals, as are we as AFS members. We like to fly around, catch up on the "buzz," and generally take part in collective efforts that are more effective and satisfying than individual efforts. Honeybees do the same things, and the result is that a beehive functions in an effective and complex way due to the collective efforts of individual bees. Likewise, the various units of AFS function collectively to support the broader complex mission. Looking at a beehive from the outside, there's apparently not a lot going on. The occasional worker bees exit the hive on their flights to find pollen and nectar. That's how I used to view AFS, that is, the few occasional workers went about their duties with not much else happening around them. I've since learned that AFS is more like the inside of a beehive with highly structured activities worked on by many specialists with devotion and perseverance.

The enlightenment part of my AFS involvement came about when I began working with the various committees that are active in our chapter. When I became a chapter officer, I looked inside the beehive and saw a variety of important and complex activities taking place within the chapter organization. I was impressed by the accomplishments of the Environmental Concerns Committee, which prepared resolutions concerning instream mining, sedimentation, and other issues critical to the quality of our environment and the status of natural resources. I also saw the dedication of the Education Committee, determined to provide continuing education opportunities for our membership at annual meetings. The awards committee and membership committee eagerly sought to recognize members' accomplishments, sometimes with plaques and praise, other times with nominations and votes. Perhaps most enlightening was the youthful zeal of the student subunit members for anything "fishy."

The rewarding part of AFS work is, as in the apiary, the sweet honey of success. Instead of the regurgitated nectar of bee saliva, our reward comes from the satisfaction of knowing that the work is necessary and meaningful, the pride of working with enthusiastic colleagues, and the professionalism used to approach these tasks.

Don't be afraid to look inside the beehive of AFS involvement. Enlightenment and reward await just under that calm exterior.

Respectfully submitted,



Secretary-Treasurer's Report

Submitted by Chad Thomas, Nominations Committee Chair

Current Chapter balance(s):

12/01/2004 -	
Checking	\$ 5,246.62
Janus Funds	\$ 17,595.64
Ichthus Fund	\$ 45,214.86
Total assets	\$ 68,057.12

We want to thank Duke Power (\$3,000) and Progress Energy (\$1,000) for the donations that they have contributed to our 2005 annual meeting in Greensboro.

Submitted by Brian McRae, Secretary-Treasurer



Nominations Committee and Ballot

The Nominations Committee is pleased to announce that our 2005 candidates for President-Elect are Lawrence Dorsey and Mark Hale. These men both possess the talent and leadership skills necessary to ultimately assume the responsibility of Chapter President. Please take time to familiarize yourselves with their backgrounds by reading the biographical sketches below. Brian McRae will be serving the second year of his Secretary-Treasurer term in 2005, so this year's ballot will only include the office of President-Elect. Considering their busy work schedules, the Nominations Committee greatly appreciates both Lawrence and Mark's willingness to serve the Chapter in this capacity.

Lawrence Dorsey, Candidate, President-Elect -

Lawrence is the District 6 Fisheries Biologist for the North Carolina Wildlife Resources Commission (NCWRC). He received a B.S. in Fisheries and Wildlife Science from North Carolina State University in 1995 and an M.S. in Biology (Fisheries Concentration) from Tennessee Tech University in 1997. He was hired by the NCWRC in 1997 as the District 7 Assistant Fisheries Biologist where he remained until 2000 when he was promoted to his current position. His work with the NCWRC has centered on the management of sportfish populations in piedmont and foothills reservoirs. An AFS member since 1995, he currently serves as the Chair of the NCAFS Education Committee and is a member of the SDAFS Reservoir Committee. He also served as President of the Tennessee Tech Student Fisheries Association in 1996. He has been a Certified Fisheries Professional since 2003.

WIN A FREE PARENT SOCIETY MEMBERSHIP JUST BY VOTING! That's right! When you cast your electronic ballot for President-Elect, you will automatically be entered in a drawing for a parent society membership. Think about that – a \$76 chance just for clicking a button and casting your vote! The winner will be drawn at the 2005 Chapter business meeting in Greensboro.



Mark Hale, Candidate, President-Elect - Mark has been a biologist with the NC Division of Water Quality since 1992. Mark mainly works with other division biologist to monitor fish tissue contaminants statewide and assess fish communities in Wadeable streams using NCIBI techniques. He also provides technical assistance and manages data associated with yearly fish kill events across the state. Recently Mark has been heavily involved in building databases to manage biological data and providing GIS support for his Section. Prior to working with the NCDWQ Mark worked with the VA Department of Environmental Quality (1987 to 1991) as an environmental specialist involved in aquatic toxicity testing and fish contaminant surveys. Mark received a degree in Marine Biology from Florida Institute of Technology in 1986. Mark and his wife Sarah, have a daughter, Rebecca, and a son, Garrison, and live in Clayton, NC.

2005 NCAFS Officer Ballot

2005 Program Committee

The North Carolina chapters of the American Fisheries Society and The Wildlife Society announce the joint annual meetings of both organizations to be held concurrently at The Summit meeting facilities, Greensboro, NC, Tuesday-Wednesday, February 8-9, 2005. The theme is "*Fisheries and Wildlife Management in Riparian Systems: Where Wet and Dry Meet*". Please visit the Chapter webpage for Registration information. This joint meeting will feature keynote speakers, continuing education workshops, contributed papers and technical sessions

Final Call for Papers

Contributed papers on management in riparian systems will be featured in the joint technical sessions. Meeting organizers specifically seek presentations of research findings, technical reports, and case studies related to riparian systems and habitats and resources that are riparian dependent. All contributed papers will be

scheduled for 20-minute oral presentations, including 5 minutes for questions.

A combined evening social will feature food and beverage, raffles and drawings, and lots of fun and good fellowship.

Technical sessions will follow on the second day with separate AFS and TWS papers and presentations. Meeting organizers seek general presentations on broad fisheries- and wildlife-related topics. Students are especially encouraged to present research findings. Following the technical sessions, both societies will hold their annual business meetings in the afternoon. The meeting will adjourn upon conclusion of the business meetings.

Submitted by Duane Harrell, President-Elect and Program Committee Chair

NCSU Student Subunit Report

The NCSU subunit focused on educational outreach this fall. Several events organized by our students drew positive attention to our profession and promoted conservation of freshwater resources, including a Boy Scout field trip, and a women's fishing clinic. Students also volunteered to help WRC staff at the state fair educational booth. In addition to community service, several students presented at the Southern Division Student Colloquium in St. Augustine FL in November.



Boy Scouts, Alex Ford (L) and Josh Powell (R), from troop 202 pull a seine in Yates Mill Pond during the field day hosted by Dr. Joe Hightower and the NCSU student subunit.

NCSU Student Fisheries Society and fisheries professor Joe Hightower held a workshop for Boy Scout Troop 202 in October. At the event, held at Historical Yates Mill County Park, Boy Scouts worked on a Fish and Wildlife Management merit badge. In addition to

building bird feeders and learning about habitat and harvest regulations, the scouts got hands-on experience pulling seines, checking trap nets and even netting fish using electrofishing gear. We hope to see some of these scouts in the fisheries and wildlife program at NCSU in a few years!

Ten ladies participated in an all women's fishing clinic, organized by graduate student Jenny Vander Pluym. The clinic, held at Dr. Clyde Sorenson's farm pond, included instruction on baiting hooks, tying knots, casting, and catching fish. At the end of the day the ladies took home several nice sized bluegill and an appreciation of fish and fishing.



Jenny Vander Pluym teaches casting skills at the all women's fishing clinic this fall.

Several students traveled to St. Augustine Florida for the Southern Division Student Colloquium. The students, Summer Burdick, Warren Mitchell, and Jenny Vander Pluym presented their research. While students were in Florida, they attended a career development workshop, heard numerous scientific talks, and networked with students and faculty from around the southeast.

New student subunit officers will take over in January. The Presidency will be split between Jenny Vander Pluym and Warren Mitchell. Lori Davias will remain in the Graduate Vice Presidency seat for a second term and Michael Shepherd will take over the Undergraduate Vice Presidency. The Secretary-Treasure position will be filled by Eugene Won.



Jenny Vander Pluym – Co-President Elect

Jenny is a masters student in marine science with a statistics minor under the guidance of Dr. David Eggleston. To add in an interesting twist, her thesis project is freshwater based! She is working on an ecological assessment of culverts on warmwater streams focusing on stream fish communities. She plans to graduate in December of 2005 and pursue a position in aquatic/marine ecosystem management. After organizing a successful women's fishing clinic, she decided being an active member of the student subunit was not enough!



Warren Mitchell – Co-President Elect

Warren is entering his second year of graduate school here at NCSU. A native of south Florida, he holds a BS in biological oceanography from the Florida Institute of Technology. Work in state, federal and private sector natural resource management led him to NC State, where he is perusing a MS in Fisheries and Wildlife Sciences, under the guidance of Dr. Joe Hightower. Currently he is preparing to deploy hydroacoustic equipment for another spring field season on the banks of the Roanoke River, where his research involves generating run size estimates for anadromous species.



Lori Davias – Graduate Vice President Elect

Lori Davias, a native of Connecticut, received her Bachelor of Science degree from Cornell University. She is currently a second year graduate student under the guidance of Dr. Jim Rice. For her master's thesis, she is studying bioenergetics and ecosystem modeling for striped bass in several North Carolina reservoirs.



Michael Shepherd- Undergraduate Vice President Elect

Michael is a senior at North Carolina State University and will be graduating in December, 2005. He is double majoring in Fisheries and Wildlife Sciences, with minors in Biological and Environmental Sciences. In addition to his AFS involvement, he currently serves as the publicity chair for the North Carolina State chapter of the Leopold Wildlife Club, and is seeking a graduate school position where he will be able to exploit both his fisheries and wildlife backgrounds collectively.

Eugene Won – Secretary-Treasure Elect (Picture not available).

Eugene is a continuing education student at NCSU, currently seeking a graduate position in Fisheries and Wildlife Science. He enthusiastically volunteered to serve on the next Student Fisheries Society cabinet.

Please check out the sub-unit web page at http://www.ncsu.edu/stud_orgs/sfs/ to learn more about our group and upcoming activities. The sub-unit list serve is the best way to stay up to date on fisheries

related happenings at NCSU. Directions on how to subscribe are available at the web site.

Contact Summer Burdick (smburdic@unity.ncsu.edu) if you have any questions about Sub-unit events.

Submitted by Summer Burdick, Student Subunit President

Awards Committee

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 2004. 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 Jim Rice at jim_rice@ncsu.edu or NCSU Zoology Department, Box 7617, Raleigh, NC, 27695-7617. Nominations will be accepted until Monday, January 5, 2005. Any questions, call me at 919-515-4592.

Submitted by Jim Rice, Awards Committee Chair

Education Committee

A continuing education workshop will be offered at the 2005 year's joint annual meeting. The workshop theme will be the EPA's new Clean Water Act 316(b) rule for fish entrainment/impingement at cooling water intake structures. The workshop will be conducted on Tuesday, February 8, 2005 from 8:00 A.M. to 12:00 P.M.

The workshop presenter will be Doug Dixon of the Electric Power Research Institute (EPRI). Doug is a fisheries biologist, AFS member, and the Manager of

EPRI's Water and Ecosystems program. Doug has extensive experience and expertise in a number of areas, but especially with fisheries issues related to the operation of steam electric and hydroelectric power plants. Doug is very active in the AFS and has been an organizer and presenter of various workshops and symposia related to fisheries and power plant issues. Much of Doug's time over the last year has been devoted to the evaluation of the EPA's new 316(b) rule and the associated new compliance standards.

This workshop will essentially be a "101" level introduction to the new rule, the new performance standards and the responsibilities and requirements of utility owners and state regulators in the implementation of the new rule. If you are involved in permitting activities associated with cooling water intakes or would just like to become familiar with this new rule, you'll definitely want to attend this workshop. Space may be limited, so be sure to register early using the meeting registration form on our chapter website.

As always, I would appreciate any comments or suggestions regarding items for the Education Committee. While I have focused primarily on continuing education for members, there are other ways we as a chapter can provide education outside of our membership. If anyone has any suggestions, please contact me at dorseylg@vnet.net or 704-986-6109.

Submitted by Lawrence Dorsey, Education Committee Chair

Environmental Concerns Committee

The Environmental Concerns Committee (ECC) held a meeting on September 9, 2004 to update, discuss, and outline our ongoing and future efforts. First, we wish to express our gratitude to Jerry Finke with the North Carolina Wildlife Resources Commission for graciously taking the helm on management of the ECC page of the chapter website. Regarding website information, the introduced and nonnative species and the sedimentation resolutions, which were distributed earlier in the year to a range of legislative liaisons and agency officials, can now be accessed on the website. Meeting minutes, a list of issues and topics to address, accomplishments, and activities will be put on the website in the near future as well.

A recent product of the ECC was a comment letter that supported rules proposed by the U.S. Department of Agriculture, Forest Service for management of off-highway vehicle (OHV) use on the National Forest

System. In part, the rules would provide clearer direction to administrative units on the identification and designation of OHV roads, trails, and areas and exclusion of or limitations on such use in undesignated areas. The ECC supported the proposed rule because it would better control OHV use and help conserve the natural resources in the National Forests. We also encouraged using fishery information when making decisions about whether a region could sustainably support OHV use.

Issues on the near horizon for the ECC include the Division of Water Quality's stream classifications and floodplain mining. A draft of a resolution on the identified need for more accurate and updated classifications of waters in North Carolina was prepared. We hope to bring it to the membership for action at the upcoming chapter meeting. We also intend to write a letter of concern to the Division of Land Resources regarding floodplain mining in the mountains and upper piedmont regions where it has often degraded aquatic and riparian habitats. Ultimately, we plan to investigate further the environmental ramifications of this activity. But, given the widespread and oftentimes unregulated manner in which floodplain mining is now conducted and the clear deleterious effects some examples have had on aquatic habitats, we feel that it is an issue that deserves some exposure in the interim.

During our meeting, the membership also agreed that the ECC should delve into other media or approaches to address and highlight aquatic habitat concerns in North Carolina. One idea was potential involvement in the Stream Watch program sponsored by the Division of Water Resources to not only allow chapter members a chance to have some fun with periodic monitoring, clean-ups, and similar activities on a stream reach, probably in the Wake County area, but also provide public exposure for the chapter. Another idea we are pursuing is preparation of an article in a popular magazine that would inform the public about the former diversity and distributions of native fish fauna in our state.

In closing, I would like to mention the recent floods in the North Carolina mountains that not only, as most are aware, had devastating effects on many communities and citizens in the region, but also altered considerably, both directly and indirectly, the character of aquatic habitat in many streams. Attached are photographs of a high elevation trout stream that typify some common erosion and repair work (note turbidity is from another active repair project further upstream) that occurred in portions of several small drainages.



Creek bank damage after storms.



Same creek reach looking downstream following some bank repair work.

These photographs are included because they exemplify the challenge of balancing societal needs and resource conservation in the mountains, as well as reinforce the need for active involvement and advocacy by fishery and other aquatic scientists on how to accomplish that balance, even under catastrophic circumstances.

As always, we welcome any recommendations on issues of concern and supporting information from the Chapter membership. Please help the committee help the Chapter encourage aquatic resource conservation in North Carolina. If Chapter members would like to participate in addressing any issues or have ideas or suggestions 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 Parent Society News from Fred Harris, NCWRC
- The Fisheries Conservation Foundation completed

its first year with two funded projects. The two funded projects include a coral reef conservation workshop that will produce policy guidance for conserving coral reefs, and the development of an electronic library that will feature summaries of projects that the Foundation funds as well as summaries of critical aquatic conservation needs that could become future projects.

Projects in the final stages of receiving support include a sea turtle by-catch reduction project being done in partnership with the World Wildlife Fund; documentation of the current distribution and status of native freshwater fishes in western North America; a documentary video exploring interconnections between imperiled stream and forest food webs; and a video on shark conservation.

AFS News from Joe Hightower, NCSU – After completing her MS degree program at NCSU, Alesia Read began a 15-month Sea Grant/AFS Fellowship at AFS headquarters in Bethesda, Maryland. Her primary work responsibility is to organize a symposium on cooperative fisheries research and management for the 2005 AFS annual meeting in Alaska. The symposium will cover successful and unsuccessful examples, lessons learned and opportunities for the future. The overall goal of the symposium is to look at where we (the fisherman, the manager, and the scientist) are in working cooperatively for sustainable fisheries management, how we can do a better job, and what the next steps should be.



Alesia holding an American shad from the Nottoway River, VA.

Alesia is also working with the Fisheries Conservation Foundation in their development of an online resource library called the Aquatic Resource Conservation Electronic Library (ARCEl). In addition, she is involved in developing the website for the Global Fisheries Ecosystem Management Network (GFEMN), which is intended to connect developing countries with the

resources that AFS can provide. Alesia reports that the Fellowship is a great opportunity and encourages you to come up to the Alaska AFS meeting and check out the symposium!

Aquarium Society News forwarded by Gerald Pottern, R. J. Goldstein & Associates, Inc. – The Raleigh Aquarium Society will hold its 21st Annual Conference and feature speakers from around the USA on such topics as freshwater & saltwater aquaria, plants, ponds, etc. The conference will be Feb 25-27, 2005 at Wake County Commons Bldg. on Carya Drive. Native fish collecting trip Friday afternoon; saltwater speakers Friday night; freshwater speakers Saturday; banquet Saturday night; auction (fish, plants, supplies) Sunday; continuous raffle (supplies) all 3 days. Fri-Sat registration - \$15. Sun auction - FREE. Directions: take Raleigh Beltline (I-440) to exit 13 (Poole Rd), go East 0.2 mile outside the beltline, turn left on Carya Drive, then follow "FISH MEETING" signs to the Commons Bldg. Website: <http://www.fishclubs.com/nc/ras/main.html>

2005 Course schedule from Dave Rosgen, Wildland Hydrology - Wildland Hydrology is excited to announce our 2005 course schedule. If you are interested in participating in any of these courses, please log onto <http://www.wildlandhydrology.com/index.htm> for the complete course schedule, course descriptions and our registration form - you should check it out ASAP as the classes fill quickly. PLEASE NOTE THAT WE HAVE TWO NEW CLASSES. The long awaited "River Restoration Design Implementation" course, a follow up to our Restoration & Natural Channel Design class for Restoration Designers and their Contractors and the "Fluvial Geomorphology for Engineers" class, which fills our level 1 prerequisites, but is designed specifically for Engineers.

Spring Viremia of Carp Virus News from Christian Waters, NCWRC - Spring viremia of carp is a viral disease of cyprinid fish, which has caused significant economic losses to European aquaculture enterprises. In April 2002, SVC virus (SVCV) was reported in the United States, leading to the depopulation of one of the largest koi (ornamental carp) hatcheries in the country and posing a major threat to the entire carp industry, as well as free ranging cyprinid species. In support of USDA/APHIS efforts to control the spread of SVCV, a short-course has been developed to introduce producers and fish health professionals to biosecurity measures that should be implemented to prevent the introduction of pathogens into aquaculture facilities. The workshop date is Wednesday, February 9, 2005 from 1:00 PM – 5:00 PM at The Center for Marine Sciences and

Technology (CMAST), 303 College Circle, Morehead City, North Carolina. This is a free workshop, with registration required and limited to the first 25 registrants. For further details contact Raghunath Shivappa, Telephone: 919.513.6608. See the link at: <http://www.ncaquaculture.org/>

Meetings of Interest

Erosion and Sediment Control for Stream Restoration Designers and Installers – Jan. 25 & 26, 2005, McKimmon Conference and Training Center, Raleigh, NC. <http://www.bae.ncsu.edu/workshops/erosion/index.html>

South Carolina Fishery Workers Association and South Carolina Chapter of the American Fisheries Society – Feb. 7 & 8, 2005, Clemson University.

Joint annual meeting of the North Carolina chapters of the American Fisheries Society and The Wildlife Society – Feb. 8 & 9, 2005, The Summit meeting facilities, Greensboro, NC. *Fisheries and Wildlife Management in Riparian Systems: Where Wet and Dry Meet.* <http://www.sdafs.org/ncafs/index.htm>.

2005 Southern Division Spring Meeting - Feb. 10-13, 2005, Virginia Beach Resort Hotel and Conference Center, Virginia Beach, VA <http://faculty.virginia.edu/vcafs/meetings.html>.

8th International Conference on Artificial Reefs and Artificial Habitats – April 10-14, 2005, Biloxi, MS. <http://www.lsu.edu/faculty/jhcowan/CARAH.htm>

135th Annual Meeting of the American Fisheries Society – Sept. 11-15, 2005, Anchorage, AK. <http://www.wdafs.org/Anchorage2005/index.htm>

59th Annual Southeastern Association of Fish and Wildlife Agencies Conference – Oct. 14-19, 2005, St. Louis, MO.

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

Fisheries Biologist I, NCWRC, Marion Fish Hatchery, Marion, NC - This position is responsible for technical operations of a fish hatchery/fisheries technology center. Duties include implementation of improved fish

culture and fisheries management technology at 6 state-owned fish hatcheries. Additional responsibilities include coldwater and warmwater fish production and facility maintenance. This position serves the purposes of fish production and technology transfer from research and development to practical application. Please follow this link for the full job announcement. [Wildlife Resources Commission Bio I Position](#) The closing date for this position is Dec. 30, 2004.

Biological Science Technician, Yellowstone Fisheries and Aquatic Sciences Section, Yellowstone National Park, Wyoming - Responsibilities: Several seasonal positions are available, May through October 2005. Assist with operations of Yellowstone National Park Aquatics Program. Duties may include assistance with native cutthroat trout preservation and restoration projects; eradication of nonnative fish species, lake and stream inventory and monitoring for fish, macroinvertebrates, and water quality; research on effects of invasive exotic species; and assistance with laboratory processing of samples, data entry, and verification.

Salary: These are GS-05/06 (step 1) level seasonal positions with the National Park Service. Closing Date: Announcement is open December 06, 2004 - January 03, 2005. Contact: To apply for these positions, you must use the USAJOBS website at www.usajobs.opm.gov and submit required materials (beginning on Dec. 6th) as instructed by the announcement for >Biological Science Technician (Fisheries), Yellowstone (Number NY200847). Your application must include a resume that includes all required information. Use the OPM publication *Applying for a Federal Job?* at <http://www.opm.gov/forms/pdfimage/of0510.pdf> for specific information. Also, (THIS IS IMPORTANT) your resume MUST include experience (BE SPECIFIC) which documents your responses to the 47 application rating factors. The application should also contain the names and contact information for three professional references.

Two fishery positions available at NCSU, Research Biologist and M.S. Research Assistantship, Tropical Stream Fish Conservation (Puerto Rico) – Two positions (Biologist and Student) are available from the North Carolina Cooperative Fish and Wildlife Research Unit at North Carolina State University, Raleigh. Research topics will include developing stream fish sampling protocols, population dynamics, habitat relations, and other aspects of Puerto Rico stream fishes. Biologist and Student will reside in Raleigh, but will

conduct research in Puerto Rico for extended field seasons.

Research Biologist - Available: Immediately or when suitable applicant is found. Salary: \$30,000/year with attractive benefits package (2-year duration). Qualifications Required: M.S. degree in fisheries, ecology, or related field, experience sampling stream fishes, and physical ability to travel and conduct field research. Desired: knowledge in stream fish ecology and management; experience in fish and stream field techniques; computer, quantitative, writing, and public speaking skills; any Spanish language skills; personality and ability to lead a research field team in a cooperative environment and to interact with agency biologists and the public.

M.S. Assistantship - Available: Immediately or when suitable applicant is found. Student Stipend: \$15,000/year (12 months), health benefits, and full tuition waiver. Qualifications Required: B.S. or B.A. degree in fisheries, ecology, or related field; 1100 GRE score (Verbal + Quantitative); 3.2 undergraduate grade point average; and physical ability to travel and conduct field research. Desired: knowledge in stream fish ecology and management; experience in fish and stream field techniques; computer, quantitative, writing, and public speaking skills; any Spanish language skills; personality and ability to excel in a cooperative environment and to interact with agency biologists and the public; and creative, critical thinking.

Applicants for both positions may initially send a letter of interest, resume, and unofficial copies of GRE scores and college transcripts (student applicants) to Tom Kwak (paper copy via US Mail, no e-mail applications please). Qualified applicants will then be encouraged to apply to the university for employment or admission. Women and minority candidates are encouraged to apply. For information and initial applications: Dr. Tom Kwak, NC Cooperative Fish and Wildlife Research Unit, Box 7617, North Carolina State University, Raleigh, NC 27695, Phone: 919-513-2696; <mailto:tkwak@ncsu.edu>.

Marine Science Fellowships for Undergraduate, Chesapeake Biological Laboratory, Maryland - Students spend the summer living and working at either Chesapeake Biological Laboratory in Solomons, MD or Horn Point Laboratory in Cambridge, MD, both part of the University of Maryland Center for Environmental Science. Students work closely with a scientist-mentor on a research project focusing on the Chesapeake Bay. The 12-week fellowship provides a \$3700 stipend,

dormitory costs, and travel expenses. In addition to a strong introduction to research, the program features a week-long orientation to marine science and seminars throughout the summer that focus on writing, oral presentations, alternative careers and science ethics.

The summer fellowships are an exciting opportunity for both those students who know they want to continue on with marine science in graduate school and those who may be uncertain of their graduate plans, but have a strong interest in science or technology. WE ARE PARTICULARLY INTERESTED IN STUDENTS FROM TRADITIONALLY UNDERREPRESENTED GROUPS IN MARINE SCIENCE. Students can apply on line or download the application from our web site: www.mdsg.umd.edu/Education/REU. The application deadline is February 8, 2005.

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 – Courtesy of AFS

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>