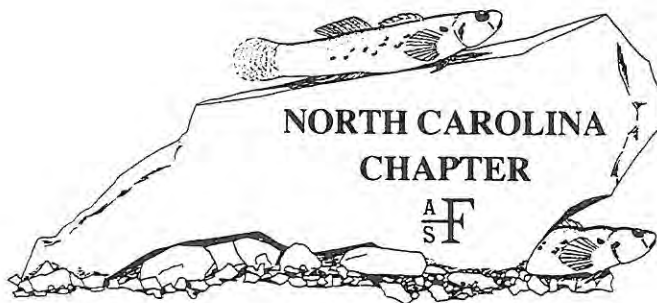




AMERICAN FISHERIES SOCIETY

APRIL 1995

Robert J. Goldstein, Ph.D., Editor
Shari D. Gunter, Layout Presentation

8480 Garvey Drive, Raleigh, North Carolina 27604
(919) 872-1174

PRESIDENT'S MESSAGE:

Serving as President of the North Carolina Chapter is more work than I expected, but associating with other members of AFS has been great. There is much to accomplish and your help is essential. The Chapter has a long range plan which includes education initiatives. The establishment of an Education Committee is necessary to accomplish our goals. Unfortunately, volunteers to this committee have not kept my phone ringing. Two quality individuals have volunteered, but we need more. I would like the Education Committee to address training for fisheries and continuing education within the profession. Unfortunately, after leaving school many fisheries professionals end up without a mentor or associate to provide inspiration or motivation. AFS has provided guidance for continuing education and the Chapter should use this as a starting point. The diversity of professionals working for state and federal agencies, universities, and private industry gives the Chapter a large knowledge base. Communication among these professionals is necessary to further fisheries science. I believe the Education Committee should also suggest ways for the Chapter to become involved with teaching youth to become anglers that understand and appreciate the resource. The North Carolina Wildlife Resources Commission has a successful youth fishing clinic program. So with just a little arm twisting, I beg you to volunteer to help with the Education Committee this year. If I do not get a call from you this week, I will be calling you next week. Don Degan, - (704) 875-5452.

LOOKING FOR A FEW GOOD TEACHERS

Bob Carline of the AFS Continuing Education Committee is seeking to provide members with training opportunities. Currently, AFS-sponsored continuing education courses are limited to those provided at meetings of national or its subunits. The correspondence courses typically provided at universities seldom include fisheries and aquatic ecology subjects. AFS is seeking instructors in fisheries/aquatic ecology related courses that might be able to reformat their undergraduate or graduate courses into correspondence offerings. Funds may be available to pay for the time required to reconfigure the course. Please contact Bob Carline at 814-865-4511 (FAX 814-863-4710; e-mail F7U@PSUVM.PSU.EDU).

ABSTRACTS OF THE 1995 ANNUAL MEETING

Fish health assessment of largemouth bass in the Catawba River, NC/SC

David J. Coughlan, B. Kim Baker, Donald G. Cloutman*, and W. Mark Rash,
Duke Power Company, Environmental Division, 13339 Hagers Ferry Road,
Huntersville, NC 28078, USA

*Present address: Mississippi State University, Dept. of Fisheries and Wildlife,
Box 9690, Mississippi State, MS. 39762, USA

The health of fifteen largemouth bass was assessed at various locations along the Catawba River, NC/SC, in 1993 and 1994 by the Fish Health Assessment procedure (FHA). Tissues, organs, and blood were evaluated and scored for deviations from their normal appearance/value to derive a FHA score for each location. Headwaters, minimally impacted locations, and thermal discharges had the lowest scores. High FHA scores, denoting relatively poorer fish health, characterized locations influenced by urbanization, industrialization, hydroelectric activities, and various combinations of these activities and were generally found in both years. Use of the procedure has led us to propose and test modifications to some parameters and scoring methods. We would only use fish between 250-450 mm; incorporate a relative weight metric; delete the scoring of parasites; develop graded scales to score liver, eyes, and gills; and establish metrics to score gross abnormalities and gill raker deformities. The procedure is easy to learn and use and appears to indicate trends over time that correspond to impaired water quality.

Stream Bank Restoration and Relocation Projects in Northwestern North Carolina

Joe Mickey, Jr., District 7 Fisheries Biologist, NCWRC

Stream bank erosion and loss of riparian vegetation along mountain trout streams is a growing problem to both fishermen and landowners in northwestern North Carolina. Unprotected stream banks erode into farmlands after each flood, causing loss of productive farmlands. Trout habitat and populations are impacted by increased sediment loads, loss of riparian vegetation, stream warming, and stream widening. Stream bank restoration projects on the North Fork New River, Ashe County, and Little Glade Creek, Allegheny County, were completed in 1992 and 1993. Goals of these projects were to improve water quality and trout habitat by stabilizing eroding stream banks. Stream bank restoration consisted of installing an erosion resistant foundation of root wads, rip-rap or logs at the base of eroding stream banks. Banks were sloped to this foundation at a 2:1 to 3:1 grade, smoothed, seeded, fertilized and mulched. Three sites totaling 225 meters (743 feet) were repaired on the North Fork New River while 23 sites totaling 292 meters (963 feet) were repaired on Little Glade Creek. Livestock were excluded by fencing and livestock crossings were established at each stream. Channel relocation projects further degrade trout streams by severely altering habitat, often resulting in a straight, rip-rapped channel. In July, 1994 the NCWRC and NC Department of Transportation worked together to relocate 126 meters (413 feet) of Little Glade Creek in Allegheny County. Goals of this project were to demonstrate that relocation projects can be done in an environmentally sound manner that simulate and accentuate natural stream characteristics that favor fish.

Effects of Flow and temperature on Spawning Migration Behavior of Albemarle Sound-Roanoke River Striped Bass

John T. Carmichael, Steven L. Haeseker and Joseph E. Hightower, North Carolina Cooperative Fish and Wildlife Research Unit, Box 7617, North Carolina State University, Raleigh, North Carolina 27695-7617, 919-515-2631

The Albemarle Sound-Roanoke River striped bass stock declined sharply during the 1970's. One proposed reason for the decline is that changes in water temperature and flow due to construction of hydroelectric dams adversely affected recruitment. Our objectives were to describe the timing and duration of the spawning migration and determine whether fluctuations in temperature and flow related to operation of the dams alter the distribution of spawning individuals. We used ultrasonic telemetry to monitor migratory and spawning behavior. Telemetered fish were relocated by manual searching and by using a series of fixed data-logging receivers located along the river. We typically noted a pronounced downstream flight response immediately after release in fish captured both during the upstream migration and in Albemarle Sound several months prior to migrating. Migration was initiated in mid to late April when water temperature reached about 20 degrees C. Differences in migration rates between the sexes were not significant. Males traveled the 208 kilometers between the river mouth and the spawning grounds in 8 days, compared to 11 days for females. Arrival on the spawning grounds occurred at an average water temperature of 19 C for females and 17 C for males. Length of time on the spawning grounds differed significantly for males (22 days) and females (8 days), and fish of both sexes that arrived earlier stayed significantly longer. Departure from the spawning grounds occurred when the water temperature reached about 20 degrees C. Following spawning, telemetered fish moved from the spawning grounds to Albemarle Sound in 2 to 7 days. Both upstream and downstream migration rates appeared to be unaffected by changes in flow and temperature. Short-term fluctuations in flow did not appear to affect the distribution of spawning striped bass.

Assessment of Entrainment at the Bad Creek Pumped Storage Station

D. H. Barwick, L. E. Miller, and S. S. Howie, Duke Power Company, Environmental Division, Huntersville, NC

Fish entrainment resulting from pumping at Duke Power Company's 1,065-MW Bad Creek Pumped Storage Station (BCPSS) was a major environmental concern for the South Carolina Department of Natural Resources and the United States Fish and Wildlife Service. To address these concerns, a multi-year study was developed in cooperation with these agencies and implemented. This study combined fixed hydroacoustics and full recovery netting techniques to estimate the number of fish entrained during the first three years of plant operation. In addition, standard reservoir fish sampling techniques were used prior to and during BCPSS operations to evaluate the response of fish in the lower reservoir (Jocassee Reservoir) to entrainment.

Overall, 391,327 fish were estimated entrained at the BCPSS during 14,244 hours of pumping in 1991-1993. A total of 300,406 of these fish were threadfin shad and most were entrained in late 1993. Blueback herring, white catfish, redbreast sunfish, and bluegills were the only other taxa entrained in significant numbers. The rate of entrainment was generally low (5 fish/hour) during most of the study (October 1991-August 1993). However, a major increase in entrainment was associated with decreasing water levels (due to drought conditions) in late 1993. Entrainment appeared to have little or no impact on fish populations in Jocassee Reservoir or on the effort and harvest of fish by anglers fishing this reservoir.

Largemouth Bass Recruitment Research in Puerto Rico: An Overview

Julie E. Gran*, Richard L. Noble, Timothy N. Churchill, and Alexis R. Alicea
North Carolina State University, Department of Zoology, Box 7617, Raleigh,
North Carolina, 27695

*Student

The largemouth bass population of Lucchetti reservoir, Puerto Rico, was studied over three years. Study objectives include determining factors affecting juvenile recruitment, impacts of supplemental stocking, and adult reproductive characteristics. Juvenile fish and environmental data were collected every three weeks. Length frequency, catch rate, and otolith analysis indicated multiple cohorts, low mortality, and rapid growth. Microtagged largemouth bass were stocked on five occasions. Subsequent recaptures provided information on movement, contribution to the natural cohort, and growth. Largemouth bass are recruited to the fishery in less than one year. The reproductive cycle was studied to determine gonadal development, spawning time, and response to environmental variables. Bass exhibited an extended spawning season lasting six months. Gonadal development appears to be initiated by slight increases in photoperiod and temperature, but spawning may occur in response to increases in reservoir water level.

1993 Water Temperature Studies on Jacobs Fork, Burke County and the East Prong Roaring River, Wilkes County

Robert J. Brown and Joseph H. Mickey, Jr., Fishery Biologists, NCWRC

Continuous recording thermometers were placed in Jacobs Fork and the East Prong Roaring River to obtain summer water temperatures. These two hatchery supported trout streams are located in North Carolina State Parks and managed under delayed harvest regulations. Summer water temperatures reached a maximum of 77.4 degrees F in Jacobs Fork and 74.5 degree F in East Prong during July. At the temperatures found in June, trout can tolerate light handling stress with moderate to heavy handling mortality expected with catch and release fishing. In the period July 1 - September 10, daily high water temperatures approached lethal with little relief at night. Trout can not tolerate handling under these conditions. After mid-September, water temperatures had cooled. These results indicate that the current timing of the delayed harvest season (1 March - 1st Saturday in June) is about right. The change from delayed harvest to hatchery supported trout waters occurs at the critical time when increasing water temperatures do not favor the survival of hooked and released trout. The extension of delayed harvest season into the summer months is not recommended.

Factors related to the abundance and growth of young-of-the-year black bass in nine Alabama reservoirs.

Joseph B. Jernigan, NCWRC

A total of 960 young-of-the-year black bass (Micropterus spp.) ranging in size from 27 to 126 mm total length were collected in nine reservoirs throughout Alabama in summer 1992. Higher densities of juvenile black bass were found in eutrophic reservoirs than in oligotrophic reservoirs. Juvenile black bass density was positively correlated to adult gizzard shad (Dorosoma cepedianum) catch in gillnets, adult gizzard shad and threadfin shad (D. pentenense) collected with rotenone. Positive relationships were also computed between juvenile black bass density and mean larval threadfin shad, mean larval gizzard shad, larval shad abundances (pooled), and mean chlorophyll a concentrations. Abundances of all other fish species were also positively related to trophic state.

Successful black bass swim-up as indicated by survivors occurred from March 14-June 7, 1992. Water level regimes appeared to influence black bass swim-up time distribution as successful swim-up did not occur until water levels stabilized and water temperature exceeded 14°C. Fluctuations in mean daily air temperatures and maximum mean daily wind speeds to 23 kilometers/hour did not appear to affect successful black bass swim-up as swim-up distributions were unimodal and continuous. However, swim-up distribution patterns were not related to subsequent length-frequency distributions.

Age-0 black bass mean daily growth rates varied among reservoirs, but density-dependent growth depression did not occur as black bass density was positively related to growth. Faster growth rates were related to trophic status and peak larval shad abundance. Although significant differences in growth were observed in the first twenty to thirty days of life, most of these differences appeared to be attributed to earlier spawning fish utilizing available young-of-the-year shad present in these systems as a food source. More productive reservoirs in Alabama have the potential to produce greater year-class abundances of black bass, but the time of spawning was also an important determinant of cohort characteristics.

Movement Patterns of Brown, Rainbow and Brook Trout within Shining Creek, Shining Rock Wilderness Area

Matt Rhea, Department of Biology, Western Carolina University,
Cullowhee, North Carolina 28723

One aspect of a study being conducted on a trout population in Shining Creek located in Shining Rock Wilderness, Haywood County, is to determine movement patterns of rainbow, Onchoryncus mykiss; brown Salmo trutta, and brook trout Salvelinus fontinalis. Movement of individual fish is being determined by tagging each fish with visible implant tags, from a known section of stream and then movement is being recorded upon their subsequent recapture. In July 1994, a 2.3 km reach of Shining Creek was divided into forty-six 50m sections. Each section was sampled using backpack electrofishing equipment. A total of 337 trout were tagged. From July to January 1995, 85 tagged recaptures have been obtained. 74% of the recaptures were taken from their original section. Of the fish that moved, 59% moved only one section and 73% of all recorded movement was upstream. The greatest movement was upstream 700m.

To determine tag retention rates, the adipose fin was clipped on all tagged fish. 141 clipped fish have been recaptured of which 85 retained the tag for an overall retention rate of 60%. Retention rates were 43% for trout less than 150mm total length (TL), and rose to 82% for trout greater than 200mm TL. Trout greater than 300mm TL had tag retention of 100%.

Angler Diary Survey of Flathead Catfish in the Yadkin-Pee Dee River System, North Carolina

Marla J. Chambers, North Carolina Wildlife Resources Commission,
12275 Swift Road, Oakboro, NC 28129

An angler diary survey of the flathead catfish (Pylodictis olivaris) sport fishery in the Yadkin-Pee Dee River system, North Carolina, was conducted (1989-1991) to examine the current fishery and provide a baseline for future comparisons. The objective of the study was to describe the quality of the fishery in terms of fish caught per hour (CPUE), size distribution, and condition (K) of the catch. Forty-four volunteer anglers were recruited to keep records of their fishing trips. Twenty cooperators reported 348 trips. Anglers fished 1,530 hours and caught 338 flathead catfish, a catch rate of 0.22 fish per hour. Eighty-seven percent of the fishing

effort was directed at reservoirs, while tailraces received 10% and rivers received 3%. Participants were more successful, however, in tailraces (CPUE = 0.54), than in reservoirs (CPUE = 0.19) or rivers (CPUE = 0.14). Total lengths of captured flatheads ranged from 152 to 1219 mm. Condition factors (K) averaged 1.32.

Instream Flow Protection in North Carolina.

Steven E. Reed, Division of Water Resources, N.C. Department of Environment, Health, and Natural Resources, P.O. Box 27687, Raleigh, NC 27611

Instream flow is the amount of water needed in a stream channel to sustain instream uses at an acceptable level. Instream uses include aquatic habitat, water quality, recreation, and aesthetics. In contrast, offstream uses result in the withdrawal of water from streams for municipal, agricultural, and industrial uses.

Artificial low flows resulting from offstream uses can significantly impact stream flows by increasing the frequency and duration of low flows as compared to natural low flow events. Instream flow recommendations are determined through desktop analyses or field studies. the two most common field methods used in North Carolina are Wetted Perimeter and the Instream Flow Incremental Methodology (IFIM).

The strong point of instream flow protection in North Carolina is the close working relationship among the N.C. Wildlife Resources Commission, the U.S. Fish and Wildlife Service, Division of Environmental Management, and Division of Water Resources. These agencies use many protection strategies, including minimum releases for aquatic habitat and water quality under the State Dam Safety Law; recommending instream flows from projects licensed by the Federal Energy Regulatory Commission (FERC); having instream flow addressed in the preparation of environmental documents under the NCEPA or NEPA; and adding conditions to 401/404 permits to protect instream uses.

ENVIRONMENTAL CONCERNS COMMITTEE - 1995

NC AFS members interested in being on the Environmental Concerns Committee should submit a statement of interest to the committee chair. The old listing contains names of members who are not currently involved with the committee or who have moved from the state. Members should state areas of interest or expertise as well as issues of concern for the upcoming year. Please include an address and telephone number for future correspondence with the committee. The goal of the Environmental Concerns Committee for the upcoming year is increased membership participation in addressing issues pertinent to fisheries in North Carolina.

The committee also needs input on potential issues that the chapter may address in the future. The following is a list of ideas for the upcoming year:

- Proposed mining within the National Forests
- Political change and its effects on environmental laws (Endangered Species Act, Clean Water Act, etc.)

Please send any other ideas or issues to:

Roger D. Bryan, Chair
Environmental Concerns Committee
Fish and Wildlife Associates, Inc.
P.O. Box 241 Whittier, NC 28789

1994 ACTIVITIES OF THE ENVIRONMENTAL CONCERNS COMMITTEE

1. On 23 February 1994, President Wilson Laney presented comments drafted by the ECC during a public hearing held by the North Carolina Wildlife Resources Commission (NCWRC) expressing support of the proposed definition of critical habitat for endangered and threatened species. We indicated that protecting all components of an ecosystem is important, and that the designation of critical habitat where appropriate should be effective in limiting the habitat loss and degradation which jeopardize the existence of many listed species. President Laney reiterated these comments in a letter dated 9 September 1994 to Mr. John Lentz, Chairman of the NCWRC, in which commissioners were encouraged to vote in favor of the proposed definition.
2. On 25 May 1994, President Laney presented comments drafted by the ECC during a public hearing held by the North Carolina Division of Water Resources (DWR) expressing support of proposed rules for minimum flow to maintain aquatic habitat under the North Carolina Dam Safety Law. We supported both the protection of streams downstream of dams under the jurisdiction of this law and the use of habitat-based procedures for setting adequate minimum flows. President Laney followed up his verbal comments to the DWR by signing a joint letter dated 8 June 1994 that was drafted by both The Wildlife Society and the ECC.
3. After attempting to resign as Chair of the ECC at the annual meeting in January 1994, Stephanie Goudreau served as acting chair throughout 1994 while working with President Laney to recruit a new chair. We are pleased to announce that Roger Bryan has agreed to chair the ECC in 1995. - Stephanie E. Goudreau, Chair.



RELEASE MORTALITY IN MARINE RECREATIONAL FISHERIES: CURRENT RESEARCH & FISHERY MANAGEMENT IMPLICATIONS.

May 8-10, 1995 (Mon-Wed)
Sheraton Hotel Oceanfront
Virginia Beach, Virginia

This conference provides an assessment forum for fisheries researchers and managers, marine advisory/extension specialists, fishery conservation/education organizations, and recreational fishery leaders. Current research results, fishery management realities, and educational needs are the primary focus. Fishery management applications, marine fish hook-release mortality impacts, and pressing research needs will be addressed. To receive program/attend conference, contact Jon Lucy, VIMS (804/642-7166), FAX 804/642-7097, or e-mail (LUCY@VIMS.EDU). Or provide your name, address, and daytime phone number to Release Mortality Conference, SGMAP, VIMS, POB 1346, Gloucester Point, VA 23062.

**MINUTES OF THE 1995 ANNUAL BUSINESS MEETING
NORTH CAROLINA CHAPTER OF THE AMERICAN FISHERIES SOCIETY
B.H. CORPENING TRAINING CENTER, CROSSNORE, NC
JANUARY 18, 1995**

President Wilson Laney called the meeting to order at 10:40 AM. It was determined that there was no quorum. Rich Noble indicated the Chapter could suspend the rules. A motion was made to suspend the rules, the motion was seconded and it passed unanimously.

SECRETARY-TREASURER'S REPORT: Shari Bryant read the 1994 annual business meeting minutes. A motion was made to accept the minutes, the motion was seconded and it passed unanimously. A financial report was also provided. The balance as of 17 January 1995 was \$1,746.11. Revenue from 1994 was \$2,608.00 and included \$1,484.00 from the 1994 annual meeting and \$1,124.00 in membership dues and contributions. Expenses were \$2,059.88 and included \$389.28 for the newsletter and \$1,622.60 for the 1994 annual meeting and \$48.00 for the student subsection.

COMMITTEE REPORTS

Executive Committee: Wilson Laney indicated that the Chapter needs to encourage more members to attend the annual meetings. The membership list continues to increase annually, but the number of persons attending the annual meeting is remaining constant. Wilson recognized Bob Goldstein for his hard work on the Chapter newsletter. He also recognized the Environmental Concerns Committee and Chair Stephanie Goudreau for the work the Committee has done this past year. Two issues were addressed by the Committee. The first was supporting the Wildlife Resources Commission in the definition of critical habitat for threatened and endangered species. The second was supporting the Division of Water Resources in the amendments to the Dam Safety Law establishing minimum flow criteria below dams. Other activities included submitting a letter to the Governor's office expressing concern about the resignation of the Director of Marine Fisheries. In the letter, a request was made to the Governor to ensure the new Director had professional fisheries background. Wilson ended his report by encouraging member advocacy by keeping up with current fisheries issues.

Local Arrangements: Shari Bryant reported that 50 people attended the annual meeting this year. The Chapter collected \$1,806.75 in registration. One member paid 1995 annual membership dues (\$7.00). The final costs of the meeting had not been totaled at the time of the meeting, but the costs were not expected to exceed the revenue. Chris Goudreau was recognized for his work in handling local arrangements for the meeting this year.

Program Committee: Don Degan recognized committee member David Yow for his contribution in recruiting presentations for the technical sessions and thanked those people who gave presentations. Don recognized Scott Van Horn, Hugh Barwick and Frank McBride for serving as judges for 'Best Student Paper'.

Newsletter Committee: Bob Goldstein recognized Shari Gunter for her contribution in getting the newsletter to the Chapter membership. There are still problems with getting the newsletter to Chapter members who are not parent society members. Bob suggested that the Chapter include on the newsletter mailing list sport fishing, commercial fishing and conservation organizations and members of the press.

Environmental Concerns Committee: Stephanie Goudreau reported on the activities of the Environmental Concerns Committee. During 1994, two major issues were addressed. The first was supporting the Wildlife Resources Commission's definition of critical habitat for endangered and threatened species. In October 1994, the Commission voted to adopt the definition of critical habitat. However, a law suit is pending over the issue. The lawsuit states that the Commission does not have statutory authority to implement these definitions. The second issue was supporting Division of Water Resources on the amendments to the Dam Safety Law establishing minimum flow requirements below dams. The amendments were approved by the Environmental Management Commission. Stephanie recognized Steve Reed and the Division of Water Resources for their efforts in developing these amendments. Stephanie reported that she was resigning as Chair and that following this meeting Roger Bryan would be the Chair.

Nomination Committee: Scott Van Horn recognized committee members Buzz Bryson and Jim Rice. The candidates for President-Elect were David Yow and Joe Hightower. Joe Hightower was elected as the next President-Elect.

Student Subsection: John Carmichael recognized Julie Gran and Milli Hayman for their work in getting raffle items and in conducting the raffle. He reported that around \$250.00 had been raised through the raffle. He hoped that during 1995, the student subsection would become more active and was going to try to recruit student members from other universities. Also, a bulletin board advertising jobs and other subsection activities had been established at N.C. State.

OLD BUSINESS

Strategic Plan: Volunteers were still needed to chair and serve on two new committees established by the Long Range Plan, the Education Committee and the Budget and Finance Committee. Rich Noble agreed to serve on the Education Committee. No additional information on the Strategic Plan was available. The Executive Committee is to review the Strategic Plan at its next meeting and report the findings in the next issue of the newsletter.

NEW BUSINESS

Environmental Concerns: As previously mentioned, the Wildlife Resources Commission has been served with a lawsuit over the approved definition of critical habitat for threatened and endangered species. The lawsuit states that the Wildlife Resources Commission does not have statutory authority on this issue. The question was raised as to whether the Chapter should join other agencies or organizations as an intervenor. It was decided that the Chapter did not need to become an intervenor since the issue was not whether the definitions were appropriate, but rather whether the Wildlife Resources Commission has the authority to implement such definitions.

Wilson asked the membership if there was some concern that the comments submitted on environmental issues such as definition of critical habitat and the amendments to the Dam Safety Law are not representative of the entire Chapter's viewpoint. Often short deadlines mean only the Executive Committee and the Environmental Concerns Committee are providing input on comments or recommendations. The membership felt that the current procedure is appropriate and if anyone is interested in becoming more involved, he or she should volunteer to serve on the Environmental Concerns Committee.

Wilson informed the membership on a project to remove a dam on the Neuse River. Initially the Marine Corps were to do the removal free of charge, but problems have prohibited this from happening. Therefore, the removal of the dam will cost \$195,000.00. Grants to fund the removal of the dam have been applied for. The Chapter is advocating removal of the dam.

INSTALLATION OF NEW PRESIDENT

Don Degan was installed a President and a Past-President's plaque was presented to Wilson Laney. Don thanked Wilson for his contributions to the Chapter. Don indicated that he would like to review the Strategic Plan, establish the Education and the Budget and Finance Committee, continue the work of the Environmental Concerns Committee, work on increasing the amount of information provided in the newsletter, and help the student subsection.

BEST STUDENT PAPER AWARD

John Carmichael (N.C. State) won this year's award. John's presentation was titled "Effects of flow and temperature on spawning migration behavior of Albemarle Sound-Roanoke River striped bass". He received a plaque, a one year student membership to AFS, and a one year subscription to the journal of his choice.

A motion was made to adjourn the meeting. The motion was seconded and passed. The meeting was adjourned at 12:05 PM.

NCAFS Treasurer's Report January 18, 1995

BEGINNING BALANCE (1/1/94)	1,197.99
CREDITS	
AFS Chapter Dues	973.00
AFS Rebate	80.00
Membership Dues	21.00
Contributions	50.00
Annual Meeting (1994)	1,484.00
TOTAL CREDITS	2,608.00
DEBITS	
Newsletter	389.28
Student Subsection	48.00
Annual Meeting (1994)	1,622.60
TOTAL DEBITS	2,059.88
BALANCE (1/17/95)	1,746.11

Submitted by:
Shari L. Bryant, Secretary-Treasurer
January 23, 1995



NEWS FROM...

THE SOUTHERN DIVISION NEWSLETTER

Don Jackson takes the reins with these paragraph introductions: *"It is with a tremendous sense of responsibility...Ours is an awesome but wonderful mission...Within each of us dwells a voice...We come together with our dreams..."* Future officers of our chapter are advised to write these down for recycling. ** Past President Larry Wilson reviewed the current Activity Plan, Environmental

Concerns and History Committees, Strategic Plan, and mid-year meeting (300 plus attendees, 100 plus technical presentations). ** At the Southeastern, Kent Nelson and J.W. Kornegay got an Honorable Mention for their paper, "Assessment of striped bass spawning stock in the Roanoke River, North Carolina." ** The 1995 Southeastern meeting will be in Nashville, Tennessee in September.

THE OREGON CHAPTER NEWSLETTER

The Chapter urged the US Fish & Wildlife Service not to defer listing the Klamath Basin bull trout (*Salvelinus confluentus*) as a threatened or endangered species. The Klamath population of bull trout is a distinct population in danger of being extirpated through hybridization with brook trout. In a lengthy response, USF&WS Regional Director Michael Spear stated that the agency was too busy, but not to worry because protection afforded other species in the Klamath River should protect this population of trout. Further, the agency will continue to look into the situation (apparently treating the Chapter's expertise as inferior to its own). The letter reads like the agency dropped the ball and is trying to justify its failure to act. Robert Hughes, speaking for AFS, responded to Spear (actually he speared him), and asked for a face-to-face to correct this inappropriate action and response by USFWS. (Let's get Wilson transferred there as a mole.)

THE NORTHEASTERN DIVISION NEWSLETTER

This group has taken a vitally important lead in establishing a joint international task force to prepare for managing the northwest Atlantic groundfish fishery whenever it has recovered sufficiently to allow controlled harvest. The collapse of this complex fishery (cod, haddock, yellowtail flounder, redfish sculpin, others) is a dramatic example of damage by overfishing, where habitat alteration and water quality are ruled out as causes. ** Some 24 papers are listed in the newsletters section, Members in Print. Nice idea. Please send 1994-95 citations to the NCAFS editor for listing in upcoming newsletters. ** The National Academy of Sciences reports that bluefin tuna seem to be holding their own, and you can read all about for \$33 by calling 800-624-6242 and asking for "An Assessment of Atlantic Bluefin Tuna."

THE INTERNATIONAL FISHERIES SECTION

Quoting from *Oceanus* magazine, the newsletter states that John Faulkner of Scripps in La Jolla wrote, "Please don't change *mollusc* to *mollusk*: the incorrect spelling is due to ignorant New Englanders who were involved in the kommercial exploitation of krabs and klams." ** Standing committees include Membership, Elections, Electronic Network, Publication Placement, Carl Sullivan Membership Award, and Bridge to Mexico Program. ** Members in this section have addresses including Australia, Bangladesh, Belgium, Canada, France, Greece, India, Italy, Japan, Mexico, Netherlands, Norway, Pakistan, Palau, Philippines, Poland, Portugal, Peoples Republic of China, Republic of China, Spain, Switzerland, U.K., Puerto Rico, and the 50 states. ** The newsletter is putting out short bios of members who have provided their e-mail addresses.

MEMBERSHIP APPLICATION

APPLICANT INFORMATION (mail materials to ☐ personal or ☐ employer address)

Name: Last First Initial			Please provide phone numbers for directory and Society use only:		Name of Employer		
Address			Home ()		Address		
City State/Province Zip/Postal Zone			Work ()		City State/Province Zip/Postal Zone		
Country			Fax ()		Country		
Membership year*			Employed by ☐ federal gov't. ☐ state/prov. gov't. ☐ industry, ☐ academia, or ☐ self				

MEMBERSHIP DUES (includes *Fisheries* and Membership Directory)

- ☐ Regular \$66.50 (outside USA \$70.50)
- ☐ Student \$33.25 (outside USA \$37.25)**
- ☐ Retired (age 65 or over) \$33.25 (outside USA \$37.25)***

JOURNAL SUBSCRIPTIONS (Optional)

- ☐ *Transactions of the American Fisheries Society* (bimonthly) \$30 (outside USA \$35)†
- ☐ *North American Journal of Fisheries Management* (quarterly) \$30 (outside USA \$35)†
- ☐ *The Progressive Fish-Culturist* (quarterly) \$25 (outside USA \$28)††
- ☐ *Journal of Aquatic Animal Health* (quarterly) \$25 (outside USA \$28)†

† Prices for AFS members only. †† Membership not required for subscription.

If applicant is a student the teacher signs here.

Name of institution where student is enrolled.

PROCLUB: If you were recruited by an AFS member please provide the following:

Member Name _____ Member Number (if known) _____

* New members accepted Jan. 1–Aug. 31 are credited to full membership for that year. (Back issues of Journals are sent.) Members accepted Sept. 1–Dec. 31 credited to full membership as of next Jan. 1, unless requested otherwise. Membership on calendar year only.

** Bona fide students of fisheries subjects are eligible for Student membership (limited to 6 years). Persons employed full-time not eligible. Teacher endorsement required (see above).

*** Retired membership for Active members upon retiring at age 65 or over.



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Raleigh, NC 27604

Robert J. Goldst
& Associates, Inc.
ENVIRONMENTAL CONSULTANTS
Assessments
Mitigation
Remediation

