PALMETTO PISCIFORUM

Newsletter of the South Carolina Chapter of the American Fisheries Society

www.SCAFS.org September, 2007



President's Message

We are on the doorstep of a significant year in our chapter history; on September 24 we will enter our 25th year as the SC chapter of the AFS. The SC-AFS was chartered on September 24, 1982 and we have plans to celebrate this significant occasion with several activities throughout the year.

To begin our 25th anniversary year we are in the process of organizing a workshop/ forum discussion on "Ecosystem Based Management in South Carolina" in the fall. This meeting will be followed by a reception and we hope that many of our members (and former members) will join us to celebrate 25 years of SC-AFS. More details and announcements about this event will be available on our website soon.

In consultation with SCFWA we have selected a date and location for our 2008 annual meeting. It is February 4 (Monday) and 5 (Tuesday) at the Santee Cooper State Park on Lake Marion in Orangeburg County. Check the website for details. We are excited about the location and will contact many of you to help us with the organization (don't hesitate to let us know you are available!).

In order to appropriately celebrate our anniversary we would love to hear from some of our, say, "mature" members about the beginnings of our organization, especially if they are willing to share their memories or thoughts during our annual meeting in February. We are also looking for pictures of past annual meetings and events, especially the earlier ones, to show at various occasions.

We have had many compliments of our redesigned website. Our thanks to Tim Snoots for his efforts

and for keeping the website up-to-date. Let us know what you think, if you have any suggestions, or have any information we can add to the website.

We had a great annual meeting at Tybee Island in January of this year. We organized it jointly with SCFWA and the GA chapter of the AFS and many members were present and presented their work. A report of the meeting can be found on page 2 of the newsletter. I want to acknowledge Carrie Hendrix, Jeanne Riley, Julia Byrd, Laurie DiJoy, Sarah Goldman, and many of our members for their help in making this an excellent meeting. Let us know if you have any questions or comments that can help us with the preparations of next year's meeting.

Unfortunately we were not able to present our Conservationist of the Year award because of a lack of nominations. I would very much like to present this award to a deserving candidate in our 25th year, and urge you to please send us your nominations. We will try to streamline the process by posting instructions and a form on our website.

It looks like this will be an exciting year for us! Please join us at our fall workshop and the annual meeting to celebrate our 25th anniversary.

Marcel Reichert, SC-AFS President



Bluebarred pygmy sunfish, Elasoma okai (Photo: David E.Scott)

Fall Workshop 2007

The South Carolina Chapter of the American Fisheries Society (SC-AFS) was chartered on September 24, 1982. The SC-AFS is planning to open its 25th year with a workshop focused around "Ecosystem Based Fisheries Management in South Carolina". This event will take place on Friday November 9 from 1:00-4:30pm in the Russell House Theater at the University of South Carolina in Columbia, SC. The workshop will open with three key note presentations, each highlighting a different aspect of fisheries in South Carolina. The speakers will set the stage for a forum discussion about ecosystem based fisheries management. This forum discussion will be moderated by Dr. John Mark Dean, Forum members include Dr. Josh Eagle (Univ.S.Carolina School of Law), Mr. Robert Boyles (SC-DNR Marine Resources Division), Mr. Mahefka (commercial fisherman), Dr. Mark Scott (SC-DNR Wildlife and Freshwater Fisheries), and Mr. Roger Pugliese (SAFMC). They represent a variety of aspects of South Carolina fisheries. We expect attendance of people with a wide range of natural resource management interests and we will encourage active participation of the audience in the discussions.

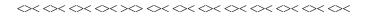
Date: November 9, 2007 Time: 1:00 - 4:30 pm

Location: Russell House Theater

University of South Carolina

Columbia, SC

The program will be followed by a reception from 5-7pm for SC-AFS members and workshop participants (details to be announced).



Jack Bayless Award for Best Professional Paper Scott Meister, South Carolina DNR

Scott Meister was announced as the winner of the 2006 Bayless Award at our Annual Meeting on January 24, 2007 at Tybee Island, GA. The award was for Scott's presentation "Observations of deep sea reef fishes using under water video" (co-

authors: George Sedberry and Douglas Weaver) which he presented on February 17, 2006 at the SC-AFS annual meeting Charleston, SC.

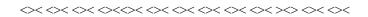


Scott Meister

The Bayless Award was created in honor of Jack W. Bayless, to recognize the best South Carolina presentation/paper given at each annual chapter meeting. Each year, volunteer judges evaluate presentations in the following categories:

- Significance to aquaculture and fisheries,
- Experimental design and analysis,
- Organization,
- Presentation, and
- Quality of visual aids.

Presenters are scored on a scale of one to four, four being excellent, for each category. The presenter with the highest total score receives the award. Any members interested in volunteering as judges for the next annual meeting, or joining the Awards Committee, should contact SC-AFS President or President-elect.



Report of the joint Annual Meeting held at Tybee Island, GA.

We had a very successful annual meeting at Tybee Island, GA last January. The 2007 meeting was organized with SCFWA and the GA chapter of the AFS, and due to the expected participation and number of presentations we decided to make the meeting two and a half days long. We had another record turn-out of 56 attendees from SC, with 40 SC-AFS members and a diverse program. The meeting was opened with a welcome by Marcel

Reichert, the Program Chair and President of the SC-AFS, also speaking for SCFWA, and Ted Will, president of the GA-AFS. This was followed by opening addresses by John Frampton (Director of SC-DNR), Spud Woodward (Assistant Director GA-DNR) and Chuck Coomer (Chief Fisheries Management GA-DNR) who presented thoughts on various aspects of fisheries management, including impacts of coastal development of fisheries resources, successful fisheries management programs, and the role of fisheries workers in the future of resource management. The program that followed was filled with presentations on a wide variety of topics (see listing below) including 16 from Georgia and 19 from South Carolina. We had once again a strong participation by students with 14 presentations. The seven session moderators did an excellent job in introducing the speakers and keeping the schedule on track. This year we had more freshwater talks (22) than marine (14), and Steven Patrick and Scott Robinson from GA-DNR organized a special session on the treatment of aquatic nuisance species in ponds. The poster session, more and more an integral part of our annual meeting, included more than 15 posters and was well attended. The success of the poster session resulted in the decision during our business meeting to start awarding a "Best Poster Award" at our annual meeting in 2008.

The social was catered by Tim Barrett and his team who prepared a wonderful Low-country boil. During the social, the GA-AFS presented several awards to colleagues for their long service in the fisheries field. SCFWA, GA-AFS, and SC-AFS also presented the awards for best presentations. The SC-AFS Jack Bayless Award for Best Professional Paper at our 2006 annual meeting went to Scott Meister (SC-DNR) for his presentation titled: "Observations of deep sea reef fishes using under water video" (co-authors: George Sedberry and Douglas Weaver). This presentation was the very last in our 2006 meeting and Scott was also heavily involved in the organization of this meeting, congratulations Scott! Another award highlight was the presentation of the best student paper of the 2007 annual meeting by both the GA-AFS and SC-AFS to Eileen Roy for her paper: "Population structure assessment of the black sea bass, Centropristis striata, in the Western Atlantic coast

and the Gulf of Mexico using mitochondrial DNA." It was significant that both organizations independently chose Eileen's presentation as the best of the 14 very good student papers at the meeting. Congratulations to Eileen for an excellent presentation! We also held a very successful raffle that helped significantly to offset meeting costs. Sarah Goldman and her team of volunteers worked hard to make this raffle such a success and we thank her for her efforts. Fishing rods, lures, and t-shirts found their way to countless members.

On January 24 we held our annual business meeting (see minutes at www.SCAFS.org)). Significant items were the minutes of the previous meeting, the financial report, and establishing a "Best Poster Award".

We can look back at a very successful meeting and thank our colleagues of SCFWA and GA-AFS for the collaboration and assistance before and during the meeting. We also like to thank the numerous people that helped with a wide variety of tasks during the meeting. We could not have done it without you and hope we can once again call on you for our 25th anniversary meeting in February of 2008.

Speakers, moderators, and poster presenters at our annual meeting on January 23-25, 2007 held at Tybee Island, GA:

Key note speakers:

John Frampton (opening address), Director of the South Carolina Department of Natural Resources. "State of the Fisheries in South Carolina".

Spud Woodward (opening address) Assistant Director of the Marine Fisheries Section, Georgia Department of Natural Resources. "State of the State's Marine Fisheries in Georgia"

Chuck Coomer (opening address) Chief Fisheries Management Section of the Wildlife Resources Division, Georgia Department of Natural Resources. "State of the State's Freshwater Fisheries in Georgia"

Special session, January 24

"Treatment of aquatic nuisance species in ponds".

Steven Patrick and Scott Robinson (moderators)

New Products & Chemicals - Signet
Disease & Parasite Update - Dr.Gary Burtle
New Stocking & Management Strategies for Ponds American Sport fish

Pond Fertilization & Liming - Steven Patrick Weed Control Strategies - Roundtable

Meeting moderators:

Pat Geer, Scott Meister, Barton Marcy, Anna Toline, Timothy Grabowski, Bill Post, and Cecil Jennings

Presentations and posters (both in alphabetical order) presented An asterisk (*) indicates the presenter and * indicates the student papers.

- Carolyn Belcher, Georgia Department of Natural Resources, Coastal Resources Division. "Potential Gear Biases Associated with Hand-retrieved Longline Catches of Subadult Sharks in Georgia estuaries."
- Mel Bell, South Carolina Department of Natural Resources, Office of Fisheries Management. "Future Challenges in Fishery Management...What's Next - Mud Minnows?"
- C. Shane Boring*¹, John M. Alderman², Jennifer M. Summerlin¹ and Joseph D. Aldrman², 1Kleinschmidt Associates, Energy and Water Resource Consultants ²Alderman Environmental Services, Inc. "Freshwater Mussel Assemblages of the Lower Saluda and Congaree Rivers, Lake Murray, and Selected Tributaries in the Central Santee River Basin, South Carolina."
- Scott Craven[#], University of Georgia. "An
 Evaluation of the Influence of Fish Life
 History Characteristics and Flow Regime on
 the Recruitment of Young-Of-Year Fishes in
 Regulated Rivers in the Southeast."
- Don Dennerline*1, Jim Peterson and Don Degan²,

 ¹USGS, Georgia Cooperative Fish &
 Wildlife Research Unit, University of
 Georgia, Warnell School of Forestry &
 Natural Resources, ²Aquacoustics. "Looking
 Forward and Backward at the "Crosswalk."
- Patrick C. Ely[#], Clemson University. "Population Size and Passage Efficiency of Alabama Shad at Jim Woodruff Lock and Dam, FL."

- Arnie Eversole*, Ryan Wenzel and Graham
 Nash, Clemson University, Department of
 Forestry and Natural Resources.
 "Procambarus acutus acutus Population
 Dynamics in a South Carolina Pond."
- Rebecca Fauver[#], University of Georgia, Warnell School of Forestry and Natural Resources.
 "Perfluorinated Compounds in Georgia Waters: a Preliminary Analysis."
- **Ben Fitzgerald**[#], North Georgia College. "Soque River Watershed Partnership."
- Patrick Geer*, Carolyn Belcher and James Page,
 Georgia Department of Natural Resources,
 Research and Surveys Program, Coastal
 Resources Division. "Lessons Learned from
 a Cooperative Blue Crab Trap Survey with
 Commercial and Recreational Crabbers."
- Timothy Grabowski¹* and Cecil A. Jennings²,

 ¹University of Georgia, Warnell School of
 Forestry and Natural Resources, ²U.S.G.S.,
 Georgia Cooperative Fish & Wildlife
 Research Unit, Warnell School of Forestry
 and Natural Resources, University of
 Georgia. "Movement and habitat use
 patterns of robust redhorse released in the
 Ocmulgee River, Georgia."
- **Travis Ingram**[#], Clemson University, Georgia
 Department of Natural Resources. "Age,
 Growth, and Fecundity of Alabama Shad in
 the Appalachicola River."
- Adam J. Kaeser, Georgia Department of Natural Resources, Wildlife Resources Division, Fisheries Section. "Rest in Peace? An Update on Georgia's Deadhead Logging Program."
- **Kevin Kubach,** South Carolina Department of Natural Resource." Field Methods in the South Carolina Statewide Stream Assessment."
- Chris McDonough, S.C. Dept. of Natural Resources, Marine Resources Research Institute."Age and Growth of Sheepshead, Archosaurgus probatocephalus, in South Carolina."
- Jason Meador[#], University of Georgia, Georgia Cooperative Fish and Wildlife Research Unit, Warnell School of Forestry and Natural Resources. "An Evaluation of Estimators of Mussel Abundance in a Large Lowland River in the Southeastern U.S."

- **H. Scott Meister,** South Carolina Department of Natural Resources, "Is that Water "Clean"? Insights on Water Quality in South Carolina."
- Jill A. Olin *, University of Georgia, Warnell School of Forestry and Natural Resources.

 "Does Freshwater Influence the Feeding Ecology of Estuarine-Dependent Sharks?"
- Mike Paller* and F. Douglas Martin,
 Westinghouse Savannah River Company.
 "A Three Year Study of Ichthyoplankton in
 the Middle Savannah River and its
 Tributaries."
- Mito Paz¹ and George Sedberry*², ¹Greenreef Belize, ² South Carolina Department of Natural Resources, Marine Resources Division. "Spawning of Black Grouper (Mycteroperca bonaci) in Belize."
- Jeremy W. Pike¹, W.R. English¹, J.D. Riley² and D.M. Rankin³, ¹Department of Forestry and Natural Resources, Clemson University, ²U.S. Forest Service, ³South Carolina Department of Natural Resources. "Salvelinus fontinalis (brook trout) Restoration in the Southeast United States: The Impact of Fintrol (antimycin) on Macroinvertebrate Community Assemblage."
- Alison Price** and James T. Peterson, University of Georgia, Georgia Cooperative Fish and Wildlife Research Unit."An Evaluation of the Influence of Trapping Methods for Detecting Stream-Dwelling Fishes."
- **Shaun Ramsey**[#], North Georgia Technical College.
 "Acid Neutralization Capacity of Brook
 Trout Streams."
- Marcel J. Reichert, David M. Wyanski* and Patrick J. Harris, South Carolina
 Department of Natural Resources, Marine Resources Division, MARMAP. "Age, Growth, and Reproductive Biology of Gag (Mycteroperca microlepis) Off the Southeastern United States."
- **Scott Robinson,** Southeast Aquatic Resources Partnership. "National Fish Habitat Initiative Southeast Regional Update."
- **Leo Rose,** South Carolina Department of Natural Resources. "Random Site Selection for a Statewide Biological Stream Assessment Using GIS in South Carolina."

- Eileen Roy[#], College of Charleston, South Carolina Department of Natural Resources. "Population Structure Assessment of the Black Sea Bass, Centropristis striata, in the Western Atlantic Coast and Gulf of Mexico Using Mitochondrial DNA."
- Steve M. Sammons, Auburn University,
 Department of Fisheries and Allied
 Aquacultures. "But Nary a Drop to Drink:
 Effects of Floods and Droughts on Growth
 of Sunfish in Georgia Rivers."
- Paul Schueller* * and Douglas L. Peterson,
 University of Georgia. "Gonadal Maturity of
 Atlantic Sturgeon in the Altamaha River,
 Georgia."
- Mark Scott*, Kevin Kubach and Leo Rose, South Carolina Department of Natural Resources."Furthering Freshwater Conservation: The South Carolina Stream Assessment."
- Colin P. Shea* and James T. Peterson, University of Georgia, Georgia Cooperative Fish and Wildlife Research Unit, Warnell School of Forestry and Natural Resources. "An Evaluation of the Influence of Streamflows and Species Traits on Meta-Demographic Parameters of Stream-Dwelling Fishes."
- Glenn Ulrich*, Carrie Hendrix and Bryan Frazier, South Carolina Department of Natural Resources, Marine Resources Division. "Relative Abundance and Seasonality of Coastal Sharks in South Carolina."
- Saundra Upchurch* and Elizabeth Wenner, South Carolina Department of Natural Resources, Marine Resources Division. "Fish and Decapod Assemblages in the ACE Basin Estuarine System."
- Kimberly Wieber[#], College of Charleston, South Carolina Department of Natural Resources. "Habitat Associations of Demersal Fishes on the Charleston Bump and Adjacent Blake Plateau."
- Marcus Zokan[#], College of Charleston, South Carolina Department of Natural Resources."Distribution and Diversity of Moray Eels (Muraenidae) in the South Atlantic Bight."



Posters:

Timothy F. Bonvechio, Jason S. Mitchell and Josh L. Duty

Georgia Department of Natural Resources, Wildlife Resources Division

"Fisheries Management on the Satilla River, Georgia."

Caroline Doksansky, Anthony Dodd, Michael Abney and Scott Hendricks

Geosyntec Consultants

"Hydroacoustic Assessment of Fish Abundance and Distribution in Relation to thermal Discharge to Support A316(A) Demostration at Georgia Power Company's Plant Branch, Lake Sinclair, Georgia."

Brad Floyd, Marcel Reichert and Eric Hiltz

South Carolina Department of Natural Resources "Flounder gigging project"

Gary D. Grossman, Megan S. Hill, D. Elkins and R. Ratajczak, Jr.

D. B. Warnell School of Forestry and Natural Resources, University of Georgia,

"Effects of Stocked Rainbow Trout on Non-Game Fish in Betty's Creek, GA."

Gary D. Grossman, J.T. Petty., C.M. Wagner, D. Elkins, P. Hazelton and R. Ratajczak, Jr

D. B. Warnell School of Forestry and Natural Resources, University of Georgia "Population Dynamics of Brook Trout in Ball Creek, North Carolina, 1991-2003."

Chris Harper

Georgia Department of Natural Resources Fisheries Management

"Largemouth Bass Propagation Using Spawntex Spawning Material."

Ian Moody

South Carolina Department of Natural Resources. "Utilization of Side Scan Sonar on South Carolina Artificial Reefs."

James Page

Georgia Department of Natural Resources
"The Top Five Finfish Species Observed as Bycatch
in the Commercial Blue Crab Fishery of Georgia."

Mike Paller and James W. Littrell

Westinghouse Savannah River Company "Long-term Changes in Mercury Concentrations in Fish from the Middle Savannah River".

Suzanne Whitney and William Brown

South Carolina Department of Natural Resources, College of Charleston

"An overview of the Clean Vessel Act Awareness Campaign in South Carolina."

Teresa Wilson, William English¹, Mark Scott² and Kevin Kubach²

¹Deptartment of Forestry and Natural Resources, Clemson University

²South Carolina Department of Natural Resources "Exploring the Index of Biotic Integrity in the Reedy River Tributaries, Greenville and Laurens Counties, South Carolina."

Sarah F. Goldman and George R. Sedberry

South Carolina Department of Natural Resources "Feeding Habits of Some Demersal Fishes on the Continental Slope off the Southeastern United States."

Corbett Norwood, Bill Post, Alan Hazel and Mark Collins

South Carolina Department of Natural Resources "Diets of Atlantic Sturgeon and Shortnose Sturgeon in South Carolina Rivers."



1982 - 2007 25 years SC-AFS

And we want to celebrate this. Do you have any old SC-AFS information, documentation, pictures, or anecdotes you want to share with us? Actually, we urge you to share them!!! Please contact us!

South Carolina Rivers benefit from Hydropower Relicensing

By Dick Christie, Danny Johnson and Ed Duncan, SCDNR

For a relatively small state, South Carolina has its share of large hydroprojects! Some of these include the Santee Cooper project, the Catawba-Wateree project, and the Saluda Dam project. Also, two projects on the Yadkin / Pee Dee rivers in North Carolina will affect the flows and water quality in South Carolina. The FERC license for each of these projects has expired or will expire in the next few years, and relicensing presents an opportunity to

enhance the riverine resources associated with each of these projects.

One milestone reached in the relicensing of these projects is the Comprehensive Relicensing Agreement (CRA) reached for the Catawba-Wateree project. This project includes 11 dams and 13 powerhouses on the Catawba and Wateree rivers and covers almost 250 miles of riverine resources in North and South Carolina. The CRA represents the culmination of many years of work to reach a balance between resource users and to protect, restore or enhance riverine and other natural resources. Some of the highlights of this agreement include:

- Continuous flows for aquatic habitat will be provided below Lake Wylie and Wateree.
- Flows will be restored to a 2.5 mile of river that was by-passed almost 100years ago.
 These flows will have a seasonal component.
- Mitigation for flow includes the establishment of at least 5.5 miles of conservation easements along the Catawba River, and \$1 million to provide for fish and wildlife research and management.
- Scheduled flows for recreation will be provided on weekends below Lake Wylie and Wateree from April through October. Scheduled flows will be provided in Great Falls each month from March through October.
- Water quality standards will be met below all dams.
- License Articles are proposed for reservoir elevation, instream and recreational flow, low flow protocol, maintenance and emergency protocol, water quality, gaging (what is gaging, is this spelled right?) and monitoring, species protection, public information, public recreation, shoreline and cultural resources management.

- Lake level operating ranges have been established to protect fish habitat, water supply, recreational access, power generation and aesthetics.
- A water supply management group was created to identify water management goals and objectives to insure that water supply will be met over the next 50 years.
- A low-inflow protocol has been developed to conserve water resources during periods of drought. As a component of this protocol, critical flows were established that would use reservoir storage during periods of low inflow to protect aquatic resources.
- Duke will contribute \$5.32 \$6.83 million, depending on the term of the new license, to support land protection efforts.
- Recreational amenities have been planned for 20 years. They will emphasize bank oriented access, and will include trails, camping areas, picnic facilities, swimming areas, and fishing piers (4).
- "Adaptive management" has been addressed for recreational planning, drought management, low inflow protocol, recreational flows, habitat flows, shoreline management planning, and water supply.

Significant accomplishments have also been made at the Santee Cooper project and the Yadkin / Pee Dee projects. A major goal in relicensing the Santee Cooper project is to enhance flow to a 37-mile section of river below Wilson Dam. A settlement agreement is nearing completion that includes significant increases in seasonal continuous flows that will benefit aquatic habitat and recreational boating.

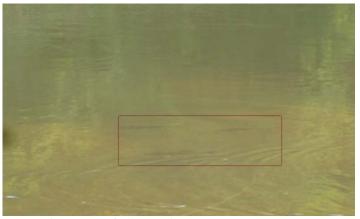
On the Yadkin-Pee Dee projects, Alcoa and Progress Energy have agreed to operational procedures that would result in a minimum flow release to us of 1200 cfs during June through January, 2400 cfs during February through May 15 and 1800 cfs during May 16-31. In addition, both companies have agreed to operate in accordance

with a Low Inflow Protocol that would result in an absolute minimum flow release to us of 925 cfs during periods of extreme drought. These flow requirements would be included in the new FERC licenses and represent a four- to eight-fold increase over current flow releases. The new higher and less variable flow releases would be protective of habitat for resident and migratory fish, recreational access and navigation, public and industrial water supply and wastewater assimilation, and would prevent detrimental salinity intrusion in the lower reaches of the River. These water resource improvements should result in significant environmental and economic benefits for the Pee Dee Region.

Robust redhorse sampling and on-site spawning on the Savannah River

Photos submitted by Scott Lamprecht, SCDNR





A spawning group of robust redhorse



Scott Lamprecht checking a robust redhorse for a pit tag



Close-up of robust redhorse



Forest Sessions milking a ripe male robust redhorse



Fertilizing and swirling eggs

AFS Moves to New Book Warehouse

AFS has moved the book warehouse operation. You may now order books by contacting our new orders department operated by Books International.

Five ways to order:

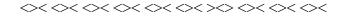
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The June 2007 Edition of the Southern Division AFS newsletter is now available on the SDAFS web site at http://www.sdafs.org. Download your copy now!



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PAST-PRESIDENT Leo Rose 803-353-8232 pastpresident@scafs.org

SECRETARY/TREASURER Carrie Hendrix 843-953-2271 secretary@scafs.org

Membership

Dues to: Carrie Hendrix SCDNR/MRD 217 Fort Johnson Rd Charleston, SC 29412







SAVE THE DATES!

FALL WORKSHOP
"Ecosystem based fisheries management in SC"
November 9, 2007
1:00 - 4:30 pm
Russell House Theater
University of South Carolina
Columbia, SC
Reception from 5:00 - 7:00 pm

Annual meeting
February 4 - 5, 2008
Santee Cooper State Park on Lake Marion



United States Department of the Interior US Fish & Wildlife Service



Internship Opportunities at Edenton National Fish Hatchery

The Edenton National Fish Hatchery is recruiting interns for the spring, summer, and fall production seasons. Up to two interns are being sought to cover all or part of each season. Interns may serve multiple seasons.

Edenton is primarily a striped bass (*Morone saxatilis*) production hatchery. Edenton also raises large numbers of American shad (*Alosa sapidissima*) and small numbers of other fish, including bluegill, fathead minnows, channel catfish, and largemouth bass.

Major Duties: Volunteers will work a 40 hour week, including occasional weekend duty. Duties include, but are not limited to the following:

- Application of standard methods and techniques relating to daily fish cultural activities including disease control, feeding, sorting, sampling, grading of fish etc.
- Daily monitoring of pond water quality, including temperature, pH, turbidity, salinity, and dissolved oxygen.
- Culture fish, including disinfection of eggs, dead egg and fry removal, feeding, cleaning troughs/raceways, and collecting data for management charts.
- Preparation of ponds including clearing of kettles and installation of damboards to allow filling of ponds without leakage.
- Application of chemicals under supervision for control of aquatic vegetation. Observe and report results of treatments.

- Mixing of fertilizer products as directed, and pond fertilization for plankton production.
- Examine fish for presence of disease and parasites, and refer suspected problems to supervisor for action. Administers treatment as directed.
- Prepares fish for shipment, distribution, and delivery. Delivers fish to stocking sites.
- Participate and assist in routine maintenance of facilities, grounds, and equipment.
- Maintenance of several large public aquaria.

Terms of Internship:

- 1. You must be at least 18 years of age.
- The hatchery provides free housing in one of its quarters unless you live locally. A washer and dryer are available, and utilities except for telephone and cable are free.
- 3. The hatchery pays a \$100.00 per week stipend for meals and incidentals.
- 4. The hatchery does not pay for travel.
- You will need casual clothing for work; jeans, shorts, and t-shirts are fine. The hatchery will provide necessary work and safety equipment upon arrival at the station.

To apply, send a resumé to the Edenton National Fish Hatchery, 1102 West Queen Street, Edenton, NC 27932. If you have any questions, please contact Stephen Jackson at (252) 482-4118 x24.



