
PALMETTO PISCIFORUM

NEWSLETTER OF THE SOUTH CAROLINA CHAPTER OF THE AMERICAN FISHERIES SOCIETY



August 2003

<http://www.scafs.org>

President's Message

Chris Thomason

It's Summertime and the Living is Easy! At least I hope it is for everyone. I was just sitting here at my desk watching it rain and reflecting on some of the changes that we are seeing in recent times that have influence on our fisheries and the people who are tied to them. One of the dramatic ones is the recent 100-year drought we just went through in South Carolina. This time last year we were in as dire shape with our aquatic resources as anyone alive can remember. Many of us were dealing with a myriad of problems related to the drought. Rivers, lakes and water tables were at extremely low levels and all resource users were affected. Most of you had some user groups you had to deal with in relation to our drought. There were many conflicts and stresses among states, hydropower companies, natural resource managers, city and industrial water suppliers, sewer companies, boaters, anglers, farmers, and private homeowners for our precious water.

Now look at us today. During the past 7 or 8 months, we switched into a period of higher than normal rainfall. We

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SCAFS Award Winners

Fishery Conservationist of the Year

Dr. John Mark Dean, University of South Carolina

Dr. John Mark Dean, Distinguished Professor Emeritus of Biological Sciences and Marine Science at the University of South Carolina, was presented with the 2002 Fishery Conservationist of the Year award on June 23, 2003. Chapter President Chris Thomason presented the award during a luncheon at New Orleans Riverfront Restaurant in Columbia. Several friends, colleagues, and SCAFS members attended the luncheon to honor Dr. Dean.



SCAFS President Chris Thomason (right) presents the 2002 Fishery Conservationist of the Year Award to Dr. John Dean.

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Jack Bayless Award for Best Professional Paper

Dave Coughlan, Duke Power

Dave Coughlan was announced as the winner of the 2002 Bayless Award at our Annual Meeting on February 4, 2003 at Hickory Knob State Park. The award was for Dave's presentation, Strontium/calcium ratios in robust redborse otoliths, at the 2002 Annual Meeting at St. Christopher on John's Island. Dave's presentation

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CALENDAR OF EVENTS

AFS 133RD ANNUAL MEETING

QUEBEC CITY, QUEBEC, CANADA

AUGUST 10-14, 2003

www.fapaq.gouv.qc.ca/fr/AFS_congres/accueil.htm

INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES ANNUAL MEETING

MADISON, WISCONSIN

SEPTEMBER 10-13, 2003

have had our reservoirs and rivers above full pool or flood stage for a longer continuous period than I can remember in my 17 years in the fisheries profession. It certainly shows those of us who try to research and manage our fisheries resources the tremendous influence the natural cycles of our world have on everyone and everything. Many of you are conducting various studies, which will encompass the drought and the subsequent flooding events. This presents a tremendous opportunity to relate these climactic events to responses in our natural biota. Hopefully, we will have more answers to questions on how best to protect our resources during the next drought cycle. We all know it's coming again. Many of those stresses and conflicts among user groups have receded to the back burner with the coming of water. They will return with a vengeance. We are a growing state with growing needs. We hope the members of the South Carolina Chapter of the American Fisheries Society will always be there to help protect the resources we have staked our careers on during the next dramatic round of change.

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SCAFS 2003 Annual Meeting Wrap-up

The 2003 Annual Meeting of the South Carolina Chapter (Chapter) was held at Hickory Knob State Resort Park in McCormick on the 3rd and 4th of February. As has become customary, the meeting was held jointly with the South Carolina Fishery Workers Association (SCFWA). The meeting was well-attended, with over sixty individual registrants.

The meeting began at noon on Monday, February 3rd in the Conference Center overlooking Lake Thurmond, with a number of interesting presentations. These included a presentation by Dr. Paul Sandifer on his work as a member of the U.S. Commission on Ocean Policy. At the conclusion of Monday's presentations, the Chapter and SCFWA each held their respective annual business meetings.

At the Chapter's annual business meeting, Dave Coughlan

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(800) 624-4960

SE ASSOCIATION OF FISH AND WILDLIFE AGENCIES
ANNUAL CONFERENCE

MOBILE, ALABAMA

OCTOBER 11-15, 2003

<http://www.dcnr.state.al.us/seafwa2003/>

AFS FUTURE FISHERIES PROFESSIONALS STUDENT
COLLOQUIUM

MORGANTOWN, WEST VIRGINIA

NOVEMBER 7-9, 2003

www.forestry.caf.wvu.edu/wvuafs/

TREASURER'S REPORT

DATE: 7/1/2003

Checking Account Balance:	\$3,476.91
Savings Account Balance:	\$4,071.02
6-Month Certificate of Deposit:	\$3,282.29
TOTAL CHAPTER ASSETS:	\$10,830.22

SCAFS Annual Meeting continued from page 2

was announced as the winner of the 2002 Bayless Award for his presentation, Strontium-Calcium Ratios in Robust Redhorse Otoliths, at the 2002 Annual Meeting at St. Christopher. Also, Jason Moak announced the new location of the Chapter website, www.scafs.org. Chris Thomason gave a brief summary of the Chapter's 2002 Fall Workshop on catostomid and cyprinid identification at Congaree Swamp, and encouraged attendees to submit suggestions for topics for the 2003 workshop. Larry Connor, Vice-president of the Southern Division of AFS, highlighted some of the Southern Division's recent activities.

After the business meetings and dinner, many attendees reconvened for an informal social at the conference center Monday evening. Mild weather encouraged many to

congregate on the outside deck where cold beverages and interesting stories abounded. Later in the evening, some attendees gathered to enjoy a nice fire in the enormous fireplace inside the conference center. Later still, Damon Abernathy's room was transformed into a "pickin' parlor" as he and Miller White treated a small audience to some banjo music.

On Tuesday, the meeting was resumed with a full morning of presentations. Over the course of the two-day meeting, over 30 presentations were given. The meeting was adjourned just after noon on Tuesday.

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Paul Sandifer Retires from SCDNR as Agency Director

Jean Leitner, SCDNR Fisheries Biologist

Dr. Paul Sandifer, current SCAFS member, retired April 1 as director of the South Carolina Department of Natural Resources (SCDNR). He leaves to pursue a new career with the National Oceanic and Atmospheric Administration (NOAA).



Paul Sandifer retired as Agency Director of SCDNR after more than 30 years of service.

Dr. Sandifer began his career in 1972 with the then S. C. Wildlife and Marine Resources Department at the Marine Resources Center in Charleston. He served there as a staff scientist until 1983, and as Marine Resources Division Director from 1984-1997, when he was named Agency Director.

Freshwater and marine fisheries workers alike have appreciated Dr. Sandifer's leadership and support. He signed off on broad human dimension studies for the freshwater fisheries section, recognizing the importance of better defining and understanding that component of the agency's constituency. He was instrumental in securing funding for the study of, among other things, endangered sea turtles, imperiled swordfish stocks, and the ecologically important Charleston Bump area. He placed his full support behind a strategic plan developed by the freshwater fisheries section that seeks to streamline current operations, obtain or develop expertise in new areas, and set the section on a new direction to best manage and conserve all freshwater aquatic organisms, from game fish to aquatic insects. He played an integral role in development of the Hollings Marine Lab in Charleston and Bennets Point facility in Green Pond.

While serving as chairman of the Atlantic States Marine Fisheries Commission he pushed for and obtained support of the Atlantic Coastal Cooperative Statistics Program, and a memorandum of understanding among Atlantic coastal states to standardize the collection of fisheries statistics. In 2001, President George W. Bush

appointed Dr. Sandifer to the U.S. Commission on Ocean Policy. Dr. Sandifer is now the Senior Scientist for the NOAA's National Centers for Coastal Ocean Science (NCCOS) stationed at the Hollings Marine Laboratory in Charleston. In this role, he identifies national coastal environmental research needs, recommends scientific priorities for NCCOS, defines new approaches for NCCOS science and works with scientists to develop these new initiatives.

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North American Native Fishes Association to convene Annual Conference in South Carolina

The North American Native Fishes Association (NANFA) is currently planning its 2004 annual conference, to be held at Riverbanks Zoo in Columbia, SC, June 18-20. NANFA is an unusual mix of academic and agency biologists, amateur naturalists, teachers, and aquarium hobbyists interested in the natural history, ecology, and conservation of native fishes, plants, and invertebrates, and their maintenance and propagation in home aquaria and ponds. Topics planned so far include pygmy sunfishes (genus *Elassoma*), sculpins (*Cottus*), aquatic plants, nest-building minnows, and aquarium and pond culture of native fishes. For more information, check out the NANFA website at www.nanfa.org or contact Fritz Rohde at fritz.rohde@ncmail.net.

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Zebra Mussel Watch

SCDNR is looking for any reports on this exotic species. While not found in the state yet, this exotic has the potential to cause great harm. Visit <http://water.dnr.state.sc.us/water/envaff/aquatic/zebra.html> for more information.



A reflection on hydropower relicensing and aquatic resources in South Carolina

Dick Christie, SCDNR Hydropower Coordinator

The development of hydropower has probably been the single most important factor impacting freshwater aquatic habitat in South Carolina. Although our Native American's lived in harmony with the streams and rivers in the State for thousands of years, we have managed to alter much of the aquatic landscape in a relatively short 'blink-of-the-eye"! It wasn't until the early 1900's, when the Catawba Station was built on the Catawba River in York County, that South Carolinians accepted the notion that the conversion of sections of the States natural rivers into man-made impoundments was a fair exchange for the benefits of electricity. Since that first large dam on the Catawba River, about 40 other hydropower projects have been constructed in South Carolina.

Since hydropower projects usually impact public, navigable waters, the Federal Government recognized a need to provide oversight. Thus, the Federal Power Act was born in 1920. However, State and Federal fish and wildlife agencies were not allowed to participate in the licensing process until 1986, when an amendment to the Federal Power Act (ECPA, 1986) gave specific them authority to do so. That act required the Federal Energy Regulatory Commission (FERC) to solicit recommendations from federal and state fish and wildlife agencies on conditions for the protection, mitigation of damages to, and enhancement of fish and wildlife resources affected by the development, operation, and management of hydropower projects.

As a result of ECPA, hydropower relicensing is now a common link shared by a number of fisheries professionals and AFS members. Licensees employ private consultants to help plan and conduct resource studies. Fisheries staff from the State DNR, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) provides guidance throughout the relicensing process. NGO's, such as the Catawba River Foundation and the Coastal Conservation League, employ personnel with extensive aquatic training and experience.

Virtually every large river system in South Carolina is being impacted by hydropower. In fact, South Carolina is home to some of the nation's largest hydroelectric projects. Some of

these that will undergo FERC relicensing during the next five years include the Catawba-Wateree project, the Santee Cooper project and the Saluda (Lake Murray) project. The operation of these projects, together with the Yadkin-Pee Dee project, impact more than 450 miles of rivers in South Carolina and 230,000 reservoir acres!



Saluda Dam, impounding the Saluda River in central South Carolina creating Lake Murray, is one of many dams scheduled for relicensing in the next 5 years.

The benefits of these projects may include relatively "green" electricity, employment, reservoirs and their associated recreational activities such as fishing and boating, water supply and aesthetics. However, there are also some negative environmental impacts associated with the hydro operations. These include degraded water quality, impacts to water quality associated with residential and commercial development, fluctuating reservoir water levels, fish mortality via entrainment, and blocked fish migration. Additionally, these projects alter stream flow, affecting fish and wildlife habitat, flood plain dynamics, navigation, and recreation.

Hydro licenses are generally issued from 30 to 50 years in duration. Many of the licenses that are currently up for renewal were licensed prior to 1970. A change in environmental ethics, as well as the development of alternative sources of electricity, has resulted in a more complicated, thorough, and costly relicensing process. Currently, relicensing a FERC project is designed around a five-year schedule (highly ambitious based on

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TREASURER'S REPORT

DATE: 7/1/2003

Checking Account Balance: \$427.77

TOTAL CHAPTER ASSETS: \$427.77

Currently, the Clemson student chapter is working to increase membership and member participation. The Department of Aquaculture, Fisheries and Wildlife has ended as a stand alone department. With the rearrangement of the natural resource departments, we are hoping to get exposure to a broader range of students from Environmental Toxicology, Forestry and Natural Resources, and Biological Sciences. This fall we will be working hard on our membership drive and hope to hold several social events at the beginning of the semester. Additionally, plans are in the works to take a Chapter sponsored trip to either the

South Carolina Aquarium in Charleston or to the Tennessee Aquarium in Chattanooga.

We hope to get interested undergraduate students involved in ongoing graduate student research. We also want to encourage all of our members to attend local meetings by having the chapter cover as much of the expenses as possible. Our members will have the unique opportunity to attend the Early Life History section's annual Larval Fish Conference at almost no cost when it is held at Clemson next summer. The student chapter sub-unit will assist with planning and running the meeting.

Currently, our only fund raising activity is T-shirt sales, but we hope to augment this with other activities (Send us your ideas!). Our chapter has plans to assist our charity Helping Hands beyond the monetary donations we have already made this year. We are considering several options, including organizing a small kid fishing event for the children at Helping Hands house and volunteering time to assist in the maintenance and improvements of the grounds. Additionally, there has been interest in volunteering in activities such as the Yadkin-Pee Dee Robust Redhorse Round-Up and SCDNR Reel Kid Fish programs.

Members are currently pursuing research with robust redhorse and other big river fishes (suckers, gar, etc.) striped bass, hybrid striped bass, shortnose sturgeon, tessellated darter, rainbow trout, mummichog and channel catfish.

The new Clemson chapter T-shirt is available. Price is \$15 and available sizes are S, M, L, and XL. On the front is the Clemson tiger paw with the lettering Clemson University-American Fisheries Society. On the back is an outline of the state with the title "South Carolina Natives". Within the outline are pictures of brook trout, rosyside dace, redbreast sunfish, striped bass, and robust redhorse. T-shirts will be sold at SC-AFS meetings and events, GA-AFS annual meeting, and Robust Redhorse Conservation Committee meetings. Mail orders may be taken with a little extra for shipping (cost not yet determined).

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SCAFS Award Winners

Fishery Conservationist continued from page 1

While the list of Dr. Dean's fisheries work is much too long to include in this article verbatim, below is a brief summary of some his contributions to South Carolina fisheries.

Dr. John Mark Dean joined the University of South Carolina as an associate professor in 1970 where he helped establish the Baruch Institute and the Marine Science Program. He is currently a special advisor to the Director of the Baruch Institute, chair of the Highly Migratory Species committee, and is a consultant to several seafood and restaurant companies. In 1973, he received the Conservation Educator of the Year award from the South Carolina Wildlife Federation. His research emphasizes the age and growth of recreationally and commercially important fishes in fresh water, estuarine and oceanic ecosystems and environmental resource policy and management. Dr. Dean is an international researcher, regularly collaborating with colleagues in Japan, Italy, France, Netherlands, and Turkey.

Dr. Dean was a pioneer in the use of otoliths to define the age and environmental history of adult and larval fishes. John co-edited "Recent developments in fish otolith research," which was the result of the First International Symposium on Fish Otoliths held in Hilton Head in 1992. John's work as a researcher and educator has resulted in over 70 peer-reviewed publications and 40 successful graduate students. Other important accomplishments of Dr. Dean include:

- Director, USC Marine Science Program (1975 – 1981)
- Founding member (1974) and President (1979) of South Carolina Fishery Workers Association
- President, Southeastern Estuarine Research Society (1981 – 1983)
- Founding member (1982) and President of the South Carolina Chapter of AFS (1983 – 1984; 1988 – 1990)
- Chair, International Commission for the Conservation of Atlantic Tunas (1992-1995)
- Director of the Center for Environmental Policy at the Institute of Public Affairs, USC (1992 – 1996)
- Director of the Natural Resource Session for Leadership in South Carolina (1980 – present)
- Appointee, South Carolina Commission on Judicial Conduct (2001-Present)

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Bayless Award continued from page 1

detailed some interesting research that may shed light on the early life stages of the imperiled robust redhorse.



Dave Coughlan of Duke Power received the Jack Bayless Award for best professional paper at the 2002 SCAFS Annual Meeting.

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 Chris Thomason or Leo Rose.

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my observations!).

Because of the time and money needed to relicense, there is a move to streamline the FERC process. The current version of the Senate energy bill includes changes to the relicensing process that would potentially reduce the role of public and private regulators who now provide oversight to the process. One proposal would redefine the manner in which the federal agencies (USFWS, NMFS) can prescribe fish passage.

As I reflect on 100 years of hydropower in South Carolina, I think the wisdom of damming our natural rivers to produce electricity will be judged by generations to come. The development of more efficient energy, and changing societal values will demand that we re-examine the "highest and best" use of our aquatic resources. Will the trend be reversed, and will we see the day when the large dams are removed? I don't think you and I will!

However, when you consider the decreasing contribution of hydropower to the total amount of power generated, and the increased cost in maintaining ageing facilities, there may be less economic incentive to continue hydropower production. On the other hand, the increased development and the implied "ownership" of public resources by a growing private community, coupled with the value of a stored water supply, as exemplified by the recent drought, will make for some interesting and difficult decision-making. When that day comes, I wonder on what side of the dam we will be as fisheries professionals?

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Captions Needed!

Got a good caption for this photo? Send it in to Leo Rose, President-elect, and we will publish the results in the next newsletter.



Clemson University Grads

Michelle Duncan, M.S.- Worked with the timing of shortnose sturgeon spawning in the tailrace of the Pinopolis Dam, Cooper River. Currently working with NMFS in Florida.

Sam Finney, M.S.- Worked with the behavior of American shad at the New Savannah Bluff Lock and Dam, Savannah River. Currently working with the U.S. Fish and Wildlife Service in Montana.

Drew Trested, M.S.- Compared seasonal movements and macrohabitat use between wild and hatchery raised shortnose sturgeon in the Savannah River. Currently working for Normandeau Associates, Inc. in New Hampshire.

Membership

Interested in becoming a member of SCAFS? Contact the chapter president, [Chris Thomason](#), fill out the form below, or download the [membership form](#) and send it in, along with your \$5 annual dues, to:

Jason Moak
Kleinschmidt Associates
101 Trade Zone Drive Suite 21A
West Columbia, SC 29170

Name	
Address	
City, State ZIP	
Phone	
Email	
Title	
Employer	

Dues enclosed

Dues paid through Parent Society