

Minutes
Board of the Department of Natural Resources
Rembert C. Dennis Building, Room 335
1000 Assembly Street
Columbia, SC
August 18, 2011 10:00 am

The regular meeting of the Board of the South Carolina Department of Natural Resources was held at 10:00 a.m., August 18, 2011, in room 335 of the Rembert C. Dennis Building, Columbia, SC. Notice of the date, time and place of the meeting was posted and mailed to the news media. Chairman Caroline Rhodes presided at the meeting. Board members present included Cary Chastain, John Evans, Michael Hutchins, Randy Lowe, Norman Pulliam and Larry Yonce. Director John Frampton and staff members of the Department of Natural Resources were present at the meeting.

I. Call to Order

Chairman Caroline Rhodes called the meeting to order at 10:00 a.m. and welcomed everyone to the meeting.

II. Invocation

Chaplain Dave Smith offered the invocation.

III. Pledge of Allegiance

Vice Chairman John Evans led the group in the Pledge of Allegiance.

IV. Introduction of Guests

Don Winslow, Chief of Staff, introduced Ashley Close, Governor's Office intern; Madison Walker, Governor's Office; Cary Chamblee, SC Wildlife Federation; and Douglas Ford, Research Director, Senate Fish, Game and Forestry Committee.

V. Constituent Comments

Cary Chamblee offered the assistance of the SC Wildlife Federation and Camo Coalition to the Department and members of the Board with regard to legislation and budget.

VI. Commendations

Mr. Frampton commended the SC Envirothon Team from Spartanburg High School for placing 3rd overall at the Canon Envirothon competition in New Brunswick, Canada.

Mr. Frampton commended Sgt. Lynwood Kearse on being named Wildlife Officer of the Year by the Quality Deer Management Association.

VII. Approval of Minutes

Chairman Rhodes offered the following corrections to the July 27, 2011, meeting minutes.

VIII. Advisory Committee Reports

Waterfowl

Breck Carmichael, Deputy Director for Wildlife and Freshwater Fisheries, reported that the Waterfowl ~~reported that the Waterfowl~~ Advisory Committee met on June 30 in Columbia. The Advisory Committee was given an update on the Wood Duck Box Program and the budget. The Advisory Committee adopted the 2011-12 Early Season Migratory Bird Hunting recommendations.

IX. Items for Board Information

C. Discussion of Climate Change Impacts to Natural Resources in South Carolina

After a video presentation and lengthy discussion the Board recommended that Bob Perry, Director of the Office of Environmental Programs, and Dr. Mizzell work with the Climate Change Technical Work Group to make Board recommended changes to the document entitled Climate Change Impacts to Natural Resources in South Carolina. Mr. Perry and Dr. Mizzell will meet with individual Board members to make sure appropriate changes and recommendations are considered. A refined draft will be presented to the Board at the September Board Meeting for their review.

Mr. Evans made a motion that the Board approve the minutes of the July 27, 2011, meeting, as amended. Mr. Hutchins seconded the motion and the motion carried unanimously.

VIII. Advisory Committee Reports

A. Heritage Trust

Randy Lowe reported that the Heritage Trust Advisory Board met on August 8. The Advisory Board received updates on Region 4 activities, Poinsett Bridge and activities of the Land, Water and Conservation Division. The Advisory Board approved the Fiscal Year 2013 budget that will be presented for the Board's consideration.

Ken Rentiers, Deputy Director for Land, Water and Conservation, briefly reviewed the proposed FY 2013 Heritage Trust Budget. Carole Collins, Deputy Director for Outreach and Support Services, explained the Heritage Trust Annual Debt Service. *Mr. Pulliam made a motion that the Board approve both the FY 2013 Heritage Trust Budget and the Heritage Trust Annual Debt Service. Mr. Hutchins seconded the motion and the motion carried unanimously.*

B. Waterfowl

Breck Carmichael, Deputy Director for Wildlife and Freshwater Fisheries, reported that the Waterfowl Advisory Committee met August 9. The Advisory Committee received a report on the 2011-12 waterfowl season harvest and an update on pond counts and breeding areas in Canada. The Advisory Committee approved the 2011-12 Late Season Migratory Bird Hunting recommendations that will be presented for the Board's consideration.

C. Migratory Waterfowl

Mike Hutchins reported that the Migratory Waterfowl Advisory Committee met August 10. Mr. Hutchins informed the Board that, due to the fact a quorum was not present, the Advisory Committee will take up elections in November. The Advisory Committee reviewed the work of several artists for the Duck Stamp since Jim Killian's contract will expire this year and he will not be renewing it. The Advisory Committee also discussed the potential combining of the Migratory Bird Permit and Duck Stamp to be called the Migratory Game Bird Permit.

IX. Items for Board Information

A. Proposal for Limited Black Bear Season

Breck Carmichael informed the Board that there is limited hunting in the Upstate but nothing for the coast. Mr. Carmichael stated that the harvest recommendations are based on the population model developed to maintain a sustainable population level. The Board posed questions regarding the application fee, the tag fee, the caliber size and the possibility of limiting the number of nonresidents. Mr. Carmichael noted that the SC Black Bear Management and Conservation Strategy, 2011 document will be placed on the website and meetings will be held to receive public input.

B. Climate Update

Hope Mizzell, State Climatologist, reviewed rainfall totals, precipitation percentiles, streamflows, lake levels, ground-water monitoring wells around the state and the tropics.

C. Progress on the 100 Day Plan

Director Frampton and the Board reviewed the progress of the 100 Day Plan. After a brief discussion of the progress and the limitations involved with other goals, Chairman Rhodes and the Board instructed Mr. Frampton and staff to develop a concise report card of the 100 Day Plan.

X. Items for Board Action

A. Board Policies

Terri McGee, Director of Human Resources, briefly reviewed the draft Board policies 100.01 (DNR Board Operational Procedures), 100.02 (Guidelines for Board Members) and 704.04 (Nepotism Policy) as included in the meeting package. *Mr. Evans made a motion to approve policy 100.01 with the following amendment:*

- V. At each regularly scheduled meeting the Board may provide an opportunity for members of the public to make constituent comments. Persons wishing to make comments should generally must contact the DNR Executive Office or Chairman at least 24 hours in advance of the Board meeting, or at the Chairman or Executive Office's discretion, to advise the nature of their comments. Comments will generally be limited to five minutes each and the time allotted to all comments will be determined by the Chairman. Any comments on issues which are related to personnel, contractual or legal issues may be deferred to Executive Session. Constituents who will be asking the Board to take action on a matter must schedule the matter through the Executive Office at least 10 working days before a meeting or at the discretion of the Chairman.*

Mr. Chastain seconded the motion and the motion carried unanimously.

Mr. Evans made a motion that policies 100.02 and 704.04 be approved as presented. Mr. Chastain seconded the motion and the motion carried unanimously.

B. 2011-12 Late Season Migratory Bird Hunting Recommendations

Breck Carmichael, Deputy Director for Wildlife and Freshwater Fisheries, briefly reviewed the proposed 2011-12 Late Season Migratory Bird Hunting Recommendations as included in the meeting package. *Mr. Evans made a motion that the Board approve the 2011-12 Late Season Migratory Bird Hunting Recommendations as presented. Mr. Hutchins seconded the motion and the motion carried unanimously.*

2011-12 LATE MIGRATORY BIRD SEASONS FOR SC
(STAFF RECOMMENDATION)

SPECIES	OPEN DATES (All Dates Inclusive)	SHOOTING HOURS	DAILY BAG LIMIT	POSSESSION LIMIT
*DUCKS (Excluding Sea Ducks)	Nov. 19–Nov. 26 Dec. 10–Jan. 29	1/2 Hour before Sunrise until Sunset	6 total, including no more than 4 mallards (2 hens), 2 pintails, 1 fulvous whistling duck, 1 black-bellied whistling duck, 3 wood ducks, 2 redheads, 1 canvasback, 2 scaup and (1 black duck or 1 mottled duck).	12 total, including no more than 8 mallards (4 hens), 2 pintails, 2 fulvous whistling ducks, 2 black-bellied whistling ducks, 6 wood ducks, 4 redheads, 2 canvasbacks, 4 scaup and (2 black ducks or 2 mottled ducks or 1 black duck and 1 mottled duck).
MERGANERS	Nov. 19–Nov. 26 Dec. 10–Jan. 29	1/2 Hour before Sunrise until Sunset	5 (not to include more than 1 Hooded Merganser)	10 (not to include more than 2 Hooded Mergansers)
**SEA DUCKS (eiders, scoters, long-tailed ducks)	Oct. 15–Jan. 29	1/2 Hour before Sunrise until Sunset	7 (Not to include more than 4 scoters)	14 (Not to include more than 8 scoters)
COOTS	Nov. 19–Nov. 26 Dec. 10–Jan. 29	1/2 Hour before Sunrise until Sunset	15	30
***CANADA GEESE/ WHITE FRONTED GEESE (Late Seasons)	Nov. 19–Nov. 26 Dec. 3–Feb 3 Feb. 6–Feb. 9	1/2 Hour before Sunrise until Sunset	5 (not to include more than 2 white-fronted geese)	10 (not to include more than 4 white-fronted geese)
BLUE and SNOW GEESE	Nov. 19–Nov. 26 Dec. 10–Jan. 29	1/2 Hour before Sunrise until Sunset	25	No Limit
****BRANT	Dec. 11–Jan. 29	1/2 Hour before Sunrise until Sunset	2	4

There is no open season for harlequin ducks.

**Sea ducks taken outside of the regular duck season may be hunted only in Atlantic Ocean waters separated from any shore, island or emergent vegetation by at least one mile of open water.

***Excludes all of Clarendon County, that portion of Orangeburg County North of SC Highway # 6 and that portion of Berkeley County North of SC Highway # 45 from the Orangeburg County Line to the junction of SC Highway # 45 and State Road S-8-31 and that portion West of the Santee Dam.

****The season for Atlantic brant is limited to 50 days, total.

*****YOUTH-ONLY Waterfowl Hunting Days: Daily and possession bag limits are the same as shown above.

Dec. 3, 2011 - State Youth Day

Only hunters 17 years of age or younger may hunt waterfowl (ducks and geese) on this day.

The youth(s) must be accompanied by an adult of at least 21 years of age. The adult is not allowed to carry a gun or hunt, but must be properly licensed, including state and federal duck stamps. Youth who are 16 and 17 years of age who hunt on this day are not required to be licensed or have a state waterfowl stamp but must possess a Federal Waterfowl Stamp.

Feb. 4-5, 2012 - Federal Youth Days

Only hunters 15 years of age or younger may hunt waterfowl (ducks and geese) on these days.

The youth(s) must be accompanied by an adult of at least 18 years of age. The adult is not allowed to carry a gun or hunt, and does not have to be licensed.

- C. Emergency Regulations for Opening Public Dove Fields and Croft State Natural Area
Mr. Carmichael briefly reviewed the Emergency Regulations for Opening Public Dove Fields and Croft State Natural Area as included in the meeting package. *Mr. Hutchins made a motion to approve the Emergency Regulations of Opening Public Dove Fields and Croft State Natural Area as presented. Mr. Pulliam seconded the motion and the motion carried unanimously.*

XI. Director's Briefing

Mr. Frampton gave the Board a brief budget update.

Mr. Frampton distributed and discussed a sheet on the Endangered Species Act.

Mr. Frampton distributed and discussed the Boone and Crockett club publication "The Secret World Inside the Animal Rights Agenda."

XII. Legislative Report

Derrick Meggie, Director of Legislative Services, gave the Board a brief overview of the two year legislative session. Mr. Meggie explained that legislation carried forward from last year will pick up at the beginning of the session. Mr. Meggie stated that simple bills introduced in the second year can sometimes move forward, but if it's a complicated bill that requires a hearing it may not pass over to the other house within the month of April.

XIII. Environmental Programs

Bob Perry, Director of the Office of Environmental Programs, stated that he had no further report.

XIV. Deputy Directors' Reports

A. Wildlife and Freshwater Fisheries

Mr. Carmichael stated that he had nothing further to report.

B. Law Enforcement

Col. Alvin Taylor, Deputy Director for Law Enforcement, stated that he had nothing further to report.

C. Marine Resources

Robert Boyles, Deputy Director for Marine Resources, gave the Board an update on actions taken recently by the South Atlantic Fisheries Management Council.

D. Outreach and Support Services

Ms. Collins stated that she had nothing further to report.

E. Land, Water and Conservation

Mr. Rentiers stated that he had nothing further to report.

XV. Comments

Mr. Hutchins distributed and discussed a working draft of southeastern states' license and watercraft fee comparisons. Mr. Hutchins noted that the "recommended" amount is his recommendation, as that amount is typically below the average of the states. After some discussion, Mr. Frampton suggested that he and staff review the information and have recommendations ready for the September meeting for possible action at the

October meeting.

Mr. Hutchins also distributed draft options for deer management legislation. After a lengthy discussion, Mr. Frampton recommended that he and staff review the options and have a recommendation for the next meeting. The Board requested that the minutes reflect that they are in unanimous agreement on a deer management program.

XVI. Executive Session

At this time, Mr. Evans made a motion for the Board to hold an Executive Session to discuss contractual and personnel matters. Mr. Hutchins seconded the motion and the motion carried unanimously.

XVII. Open Session

Mr. Evans made a motion that the Board return to regular session and noted that no actions were taken in Executive Session. Mr. Lowe seconded the motion and the motion carried unanimously.

Mr. Evans made a motion to approve staff to proceed with project set-up and due diligence activities on a potential 3,500-acre acquisition in Lancaster and Kershaw counties. Mr. Lowe seconded the motion and the motion carried unanimously.

Mr. Chastain made a motion to approve staff to proceed with project set-up and due diligence activities on a potential 5-acre addition to Botany Bay Wildlife Management Area. Mr. Hutchins seconded the motion and the motion carried unanimously.

Mr. Pulliam made a motion that the Board appoint Joel Eugene Adams to the Law Enforcement Advisory Committee, subject to normal background checks. Mr. Chastain seconded the motion and the motion carried unanimously.

XVIII. Time and Location of the Next Meetings

The September Board meeting will be held Friday, September 16, 2011, in Columbia.

The October Board meeting will be held Wednesday, October 5, 2011, in Columbia.

XIX. Adjournment

There being no further business to be brought before the DNR Board at this time, the meeting was adjourned.

EXECUTIVE OFFICE

OFFICE OF THE DIRECTOR

Don Winslow and Terri McGee met with Colonial Life staff about their employee benefits program on the morning of August 1. Mr. Winslow attended the Scholastic Clay Target Program Board meeting on August 2 at the Rocky Creek Sporting Clays facility in Richburg.

Emily Cope accepted the option on the Reedy River acquisition on August 1, sent the Corps of Engineers (COE) a list of DNR issues on the Calhoun Falls lease, began work on the Forest Legacy Program administrative grant, began amendment to the range grant and worked on the DNR property inventory for the Budget & Control Board. Ms. Cope submitted the Forest Legacy Program administrative grant on August 2, talked with and updated Representative Mike Pitts on the Reedy River project and attended a meeting with staff and the Environmental Bank & Exchange to discuss potential mitigation projects. On August 3, Ms. Cope submitted the range grant to the US Fish & Wildlife Service (USFWS), spoke with COE staff regarding the Calhoun Falls lease, and spoke with Senator Sheheen and Bob Haynie on the Wateree project.

John Frampton represented DNR at the Atlantic States Marine Fisheries Commission (ASMFC) meeting in Alexandria, Virginia, on August 2-4, with his travel expenses covered by the ASMFC.

Ms. Cope attended the Heritage Trust Advisory Board meeting on August 4 in Columbia. That afternoon, Mr. Frampton and Ms. Cope participated in a conference call with Senator Vincent Sheheen, at his request, on the Wateree project. On August 4, Mr. Winslow reviewed boat landing sites on the Pacolet River.

Mr. Frampton and Mr. Winslow met on August 5 in Columbia with Suzi DuRant, Executive Director of the SC Marina Association, and several group members to discuss the Boating Infrastructure Grant (BIG) and to receive input from the members.

On August 8, Mr. Frampton and Mr. Winslow met with Board Member Mike Hutchins and discussed various Department projects and issues. Later that day, Mr. Frampton and Ms. Cope met with COE staff in Columbia to discuss the potential Calhoun Falls lease. That afternoon, Mr. Frampton attended the funeral of retired Law Enforcement Captain Hugh "Tater" Still in Barnwell.

Mr. Frampton and Mr. Winslow met with Ms. Cope and the Deputy Directors on the morning of August 9 to discuss budget and personnel issues. Following that meeting, Mr. Frampton, Mr. Winslow and Ms. Cope met with Mr. Rentiers and Mr. Speares to discuss Heritage Trust funding issues. Mr. Winslow attended the Waterfowl Advisory Committee meeting that morning in Columbia.

On August 10, Mr. Frampton and Mr. Winslow attended the Migratory Waterfowl Committee meeting in Columbia. Later that day, Mr. Frampton participated in the Federal Marine Protected Area Land, Sea & Communities Subcommittee conference call for a review of three case studies.

On the morning of August 11, Mr. Frampton and Mr. Winslow met with Mr. Kibler on the agency's facilities report and future plans. Mr. Frampton and Mr. Winslow met with biologist Gerald Moore, Mr. Mabry and Mr. Carmichael for a discussion of license waivers for special hunts. Later that morning, Mr. Frampton met with Ted Pitts, Governor Haley's Deputy Chief of Staff (Policy, Budget & Cabinet Affairs), on land acquisitions. That morning, Ms. Cope met with Mr. Swaynham and Representative Mike Pitts in Clinton to discuss the Halbert Tract. That afternoon, Mr. Frampton and Ms. Cope met with Representative David Agnew and Calhoun Falls Mayor Lee Garrett, at Representative Agnew's request, in Columbia to discuss a potential land transaction in Calhoun Falls and a partnership with the town.

Mr. Frampton met with Craig Watson of the USFWS in Saluda County on the morning of August 12 and worked on a small landowner NAWCA grant. Mr. Winslow attended the Harry Hampton Memorial Wildlife Fund Board of Directors meeting in Columbia on August 12. Mr. Winslow represented the Executive Office at the SC Wildlife Federation's annual Wild Summer's Nite auction event on Saturday evening, August 13, in Columbia.

Ms. Cope finalized and submitted the DNR land information and Wateree project information to the Governor's Office on August 15. On August 16, Ms. Cope met with Mr. Mabry on various land issues and later met with Linda Gordon of the Budget & Control Board to follow-up on our land information that she finalized and submitted on August 17 as well as submitted the official letter to Andy Howard on the Laurens County funding from the Reedy River project.

Mr. Frampton participated in the USFWS Joint Federal Aid Task Force meeting in San Francisco, California, on August 16-17, with travel expenses covered by the USFWS. While at the meeting, Mr. Frampton participated in a conference call of the Marine Protected Area Federal Advisory Council on August 16 to finalize the Coastal & Marine Spatial Planning Process (CMSP) White Paper.

Mr. Frampton and Mr. Winslow participated in the DNR Board Meeting in Columbia on August 18, with Ms. Cope in attendance and obtaining approval of the Board to establish the Wateree and Gilmore projects. On August 19, Mr. Frampton and Mr. Winslow met with John Carmichael of the Department of Corrections for a discussion of partnership opportunities between our agencies. On August 19, Ms. Cope received a call from Representative Mike Pitts on the

pecan trees at Belfast, and she talked with Senator Danny Verdin on August 22 about the issue.

During the week of August 22, Mr. Frampton and Mr. Winslow participated in hurricane conference calls with Emergency Management Division staff and the Governor's Office on the approaching Hurricane Irene which landed in North Carolina and produced rain and wind in South Carolina.

Mr. Winslow attended the United Way State Agency Campaign kick-off luncheon on August 23 at the Lace House at the Governor's Mansion complex, with Governor Haley speaking to the group. That day, Ms. Cope met with Governor's Office staff to discuss the Calhoun Falls project, submitted the financial commitment letter on the Coastal Wetlands grant to USFWS, and spoke with Senator Sheheen on the Wateree project. On August 24, Ms. Cope met with House Ways & Means Staff, Paul Patrick and Ben Twilly, to discuss the Calhoun Falls project, spoke with Bob Haynie on the Wateree acquisition, and sent closing papers to the attorney on the Reedy acquisition. On August 25, Ms. Cope closed on the Reedy River acquisition and notified staff.

Mr. Frampton participated in a meeting of the Council to Advance Hunting & Shooting Sports in Eugene, Oregon, on August 25, with his travel expenses covered by the Association of Fish & Wildlife Agencies.

Mr. Frampton and Mr. Winslow attended the DNR Law Enforcement Wildlife Basic Graduation ceremony on August 26 in the Styx Classroom. Ms. Cope met with Jason Johnson of The Conservation Fund and the Gordon family in York to discuss a potential project.

On August 30, Mr. Winslow participated in a teleconference with Jim Moore of the Remington Foundation to discuss marketing opportunities. Later that day, Mr. Winslow and Ms. Cope participated in a public lands document management system training event in the Board Room in Columbia. Ms. Cope also met with Mr. Swaynham and Mr. Perry on mitigation opportunities in Region 1 and later met with Jason Johnson of The Conservation Fund on the Wateree project.

On August 31, Mr. Winslow met in Charleston with Jimmy Huggins of the Southeastern Wildlife Expo on future plans. Ms. Cope met with Senate Finance staff, George Dorn, Clint Leach and Mike Shealy, and then with State Treasurer's Office staff, Rick Harmon, to discuss the Calhoun Falls project.

Marine Resources Division

Office of the Deputy Director

Mr. Boyles travelled to Alexandria, VA August 2nd thru 4th to attend the Atlantic States Marine Fisheries Commission Summer Meeting Week. On August 9 Mr. Boyles participated in a meeting of the South Atlantic Fisheries Management Council (SAFMC) in Charleston. The next day Mr. Boyles met with SAFMC Chairman David Cupka and representatives of the Environmental Defense Fund's Ocean Program to discuss catch shares in federal fisheries. On August 18th Mr. Boyles was in Columbia to attend the DNR Board meeting. On August 19th Mr. Boyles hosted the SC Governor's Cup Tournament Committee meeting at the Marine Resources Center. On August 22nd Mr. Boyles held a MRD general staff meeting to discuss the possibility of conducting preparations for Hurricane Irene. On August 23rd Mr. Boyles participated in a South Atlantic Fisheries Management Council public hearing regarding Snapper Grouper Amendment 24 (red grouper). On August 30th Mr. Boyles met with staff and architects from Meadors Construction regarding the renovation of the Eltzroth Building at the Marine Center.

Marine Resources Research Institute (MRRI):

Program and Grant Development Activities

- Proposal to NSF with A. Mount and I. Sokolova on oyster genomics and climate change is in preparation and will be submitted to NSF 6 September. DNR budget \$320,993.
- Dr. Chapman assisted Dr. Lou Giullette in the preparation of a proposal to the US Army: "Lipidomic analysis and synthesis regulation of anti-inflammatory resolvins and lipoxins in ovarian cancer."
- ECOHAB: Assessing the impact of global change on the growth and toxicity of microcystin-producing cyanobacteria in southern and mid-Atlantic waters. 9/1/12-8/31/15. NOAA/NOS. Submitted through USC. PIs D. Greenfield, M. Mulholland (ODU). MRRI contractual services: \$16,500. Submitted 8/24. If funded, this project will examine the effect of global change (= temperature, carbon dioxide, nutrient loading) on cyanobacteria blooms.
- "Stock structure of the smooth dogfish (*Mustelus canis*) in U.S waters" with Bryan Frazier as Co-PI on a sub-award with Texas A&M. Cooperative Research Program, \$5,000. Submitted.
- "Characterizing reproduction of species in the Small Coastal Shark fishery complex in U.S. Atlantic waters" with Bryan Frazier as Co-PI on a sub-award with Texas A&M. Cooperative Research Program, \$42,230. Submitted.
- Proposal for Assessing the Effects of Folly Road and Bridge Construction in a Tidal Creek System. Van Dolah as PI. Submitted to SCDOT \$280,617 over five years.
- The following proposals were recommended for funding by SC Sea Grant:
 - Managing reproductive failure in fisheries and on fish farms: A joint NC/SC sea grant project. PIs Robert Chapman (lead) and Craig Sullivan. \$99,502 over two years.
 - Development of a novel genetic approach to rapidly detect and quantify fish eggs of economically important species: A new tool for fisheries management. PIs D. Greenfield (lead) and Steve Arnott (co-PI). Collaborator: W. Joe Jones, USC. MRRI component \$15,895 over two years.
 - Development of a Sustainable, Minimal-Water Exchange, Polyculture Biofloc Production System. PIs: Leffler, Denson, Kingsley-Smith; \$124,152 over two years.
- A new iteration of the MIMES proposal was submitted to the National Science Foundation: "REU Site: Research Experiences for Undergraduate Minorities in Marine and Environmental Sciences", \$302,179 over 3 years, Federal funds. (PI: P.R. Kingsley-Smith, 12 other senior personnel listed)

Publications and Outreach

- MARMAP hosted a successful otolith workshop for scientists from Old Dominion University on August 15-17. MARMAP staff trained the visitors in processing, examination, and interpretation of tilefish and snowy grouper otoliths.
- Over 300lb of fish processed during leg 11 of the reef fish cruise was donated to the Lowcountry food bank.
- Kristen M. Gaworecki*, Robert W. Chapman†, Marion G. Neely‡, Angela R. D'Amico*, and Lisa J. Bain Arsenic exposure during embryogenesis alters muscle development and structure.; accepted with revision in Toxicological Sciences.
- Siegel, A., Cotti-Rausch, B, Greenfield, D.I., and J. Pinckney (2011) Nutrient controls of planktonic cyanobacteria abundance in coastal stormwater detention ponds. *Marine Ecology Progress Series*. 434: 15-27.
- Ryan, J., Greenfield, D.I., Marin, R. III, Preston, C., Birch, J., Doucette, G.J., and C.A. Scholin (2011) Harmful phytoplankton ecology studies using a molecular/environmental observing network. *Limnology and Oceanography*. 56: 1255-1272.
- Dapremont, A. and D.I. Greenfield (2011) The distribution of *Pseudo-nitzschia* spp. along the southeastern U.S. during May-June 2011. NSF Minorities in Marine and Environmental Science Symposium. Charleston, SC.
- The following manuscript was provisionally accepted to Fishery Bulletin and returned to the journal after incorporation of Associate Editor comments: Arendt MD, Schwenter JA, Segars AL, Byrd JI, Maier PP, Whitaker JD, Parker L, Owens DW, Blanvillain G, Quattro JM and MA Roberts. Catch rates and demographics of loggerhead (*Caretta caretta*) sea turtles collected from the Charleston, SC shipping channel during the era of mandatory use of Turtle Excluder Devices (TEDs): A proxy for the Southeast USA?

- The following manuscript was returned to Marine Biology after incorporating minor reviewer edits after which the reviewer deemed the manuscript acceptable: Arendt MD, Segars AL, Byrd JJ, Boynton J, Whitaker JD, Parker L, Owens DW, Blanvillain G, Quattro JM and MA Roberts. Distributional patterns of adult male loggerhead (*Caretta caretta*) sea turtles in the vicinity of Cape Canaveral, Florida, USA during and after a major annual breeding aggregation.
- Darden presented a programmatic overview of EFR Group for the HML monthly seminar series.
- MIMES summer intern, Jan Enabore, presented his research results on The Genetic Effects of Overfishing in Red Snapper at the MIMES symposium.
- CofC REU summer intern, Ian Ster, presented his research results on A Genetic Look at Robust Redhorse, *Moxostoma robustum*, Populations in the Savannah and Pee Dee Rivers and the Possible Effects of Climate Change at the CofC REU symposium.
- Kingsley-Smith attended the 14th International Conference on Shellfish Restoration at the University of Stirling, Scotland August 23rd-27th 2011 presenting a paper entitled "The role of oyster reefs in the provision of habitat for diverse assemblages of nektonic organisms with varied life history strategies." Authors: Kingsley-Smith, P.R., Joyce, R., Arnott, S.A., Roumillat, W.A. & Reichert, M.

Progress Report and Activities

Coastal Finfish: SEAMAP and MARMAP:

- Dr. Tracey Smart accepted a position as an Associate Scientist with the section. Her start date is October 2nd.
- SEAMAP successfully completed the summer cruise on August 11. All stations were sampled. Shrimp catches have been fair. Virtually all brown shrimp north of Charleston, and mostly white shrimp off Florida. A mix, dominated by browns, off Georgia and southern South Carolina. A fair number of the whites south of Charleston appear to be this year's crop and are already in spawning condition or headed that way, with a few found to be spawning. We have seen black gill disease in both species, though at a fairly low rate. The cubomedusae were very abundant in the catches, especially from just below Savannah to just above Hilton Head with several huge catches, but fortunately, by the time the nets came on deck, enough water squeezed out to drop the weight to 500-900 kg.
- The scheduled 10-day cruise of the MARMAP/SEAMAP Reef Fish Survey (leg 11, *R/V Palmetto*) was split in two cruises as a result of weather (tropical storm Emily). We completed 5 days of sampling and deployed short bottom long lines and chevron traps with good catches. The first lionfish of the season was collected in a trap this cruise (second ever for MARMAP). Leg 12 departed on August 29 and is scheduled to return on September 2.
- The first 3 legs of the MARMAP tilefish long line survey (*R/V Lady Lisa*) were cancelled due to mechanical issues and weather (hurricane Irene). The first realized cruise (leg 4) departed on August 29 and is scheduled to return on September 2.
- Marcel Reichert, Jeanne Boylan, and Larry DeLancey attended the annual SEAMAP meeting in Key West, FL on August 8-10. Marcel and Jeanne provided overviews of the SC-DNR's SEAMAP accomplishments. The overviews were very well received within the South Atlantic SEAMAP group and the joined session. In spite of the challenges we faced in the past year, the quality and quantity of our SEAMAP activities are equivalent to those in other regions, and in some areas we are in a leading position. Jeanne presented an excellent summary of some significant accomplishments of the SA-SEAMAP data base development, but the meeting urged us to move forward with the hiring of the Oracle data base manager to complete the efforts as outlined in our scope of work. In addition to the updates from the three regions (S. Atlantic, Gulf of Mexico, and Caribbean) and programs (NOAA), the meeting approved the new 5 year management plan and discussed future needs and funding.

Environmental Research:

- Environmental Research: SCECAP sampling was completed this month which now provides 13 years of comprehensively assessing the health of South Carolina's estuaries. Staff submitted three of five data sets owed to the EPA NCCA project with a fourth close to being submitted. The DNR's SCECAP and the USEPA's NCCA programs are complimentary to each other and this year's survey met the national monitoring needs. Staff have been working completing a DJ final report, and several deliverables for the SEAMAP SERTC program. These include photographs of several finfish species created a new photographic gallery for the SERTC website (which will be posted in Sept). ERS staff also processed almost 20 GIS data sets into the Wind Energy and INTEMAR databases. These databases will be part of a comprehensive spatial database on South Carolina's coastal resources and uses which will be finished in September. Final activities for the ERS portion of the OHH project are being completed. Sediment samples have been processed. A revised Hilton Head Plover budget was submitted to Olsen and Assoc. for sampling thru 2015. **Algal Ecology: CDC & Routine Monitoring** –
- We have been following a series of cyanobacteria blooms at Kiawah. We also observed several blooms of the raphidophyte *Chattonella subsalsa* and are continuing to monitor these events. Some of the cyanobacteria blooms have been associated with fish kills. We are continuing to monitor these events closely and increase sampling efforts.
- **EPA Project** – Staff completed all bioassay deployments for the first quarter of Y1 of funding. The sites included the Ashley River, Kiawah Pond #K75, Thousand Acres (BMFL), and Wimbee Creek (ACE Basin). All experiments went smoothly, thanks to the combined efforts of Lara Brock, George Riekerk, Sarah Hogan, and Chuck Keppler.
- We have completed our TN sampling for the SCECAP samples and TKN samples have been sent to Clemson for analyses; we are awaiting these results.
- **MIMES/Pseudo-nitzschia project** – Angela completed her project and presented at the MIMES symposium (above). We are awaiting toxin analyses from one of her isolates but all the work she was required to do has been accomplished.
- **Other** – Jared Ragland left our group (8/9), and we are searching for a replacement. DG hired Sarah Hogan as an hourly to work primarily with the EPA project; her direct supervisor will be Lara Brock. DG ordered a complete service overhaul of one of our HPLCs in HML on 8/23. A service is also expected for our TOC analyzer in MRRI, date TBD. Staff completed nutrient and

HPLC analyses for Marie DeLorenzo in support of her mesocosm experiment focusing on ecotoxicological impacts of the Deep Water Horizon spill project.

Estuarine Finfish Research:

- We have begun subsampling analyses on our adult red drum genetic data to evaluate the influence of temporal design on population structure analyses – the outcome will be applicable to study designs for many marine species. We completed a summary report of adult red drum analyses for the FFWC who provided genetic samples from the east coast of Florida to include in the analyses.
- We have completed the genotyping of striped bass samples from Lakes Marion and Moultrie gillnetting surveys as well as samples from the Cooper River. The Cooper River report is complete, indicating 100% contribution of stocked fish but none resulted from the experimental larval stockings. The Marion and Moultrie report is also complete and has been submitted to WFFD staff. These projects will evaluate stocking contribution on both systems for the WFFD. We have also completed genotyping striped bass for the NCWRC and are completing their project report. The coastal striped bass samples collected since January 2011 (focus is the Ashley River) have been genotyped and analyzed for inclusion in our annual SK report. Results indicate phase II fish are continuing to show higher contributions in this coastal system and for the second year, non-stocked YOY striped bass were present in the Ashley River.
- We have completed the genotyping of samples from 1999-2000 and 2007-2009 for the red snapper project to evaluate historic levels of genetic diversity and effective population sizes from otolith samples (genetic diversity was very low, but stable over the past decade). We are still attempting to locate the 1994-1995 samples.
- We have completed the genotyping samples for the robust redhorse project and are further analyzing data – the project will establish a genetic baseline data for the Savannah and Pee Dee Rivers and parentage foundation for restoration work within the Santee-Cooper system.
- We continue to make progress on our red drum telomere aging project, all initial samples are completed and data analyses have begun – TOE window analysis looked promising and initial standard curve for red drum does indicate a significant negative correlation of telomere length with age (based on fin clips), we will continue analyses to attempt to improve predictive power of the curve. Our initial AFLP screening of red drum and cobia samples for sex-specific markers is complete. No perfect diagnostic markers were located for either species, but we are evaluating sensitivities in several primer combinations for both red drum and cobia.
- We are completing the genotyping of the historic cobia otolith samples from the Gulf of Mexico and are processing the 2011 cobia samples.
- In preparation for cobia SEDAR in February we are processing 2011 cobia otoliths samples and historic otolith collections from the Gulf states.
- Inshore Fisheries attended the Al Oswald fishing tournament at James Island Yacht Club to collect fishery-dependent data. It was the 35th and final time that the tournament was held. Bill Roumillat of SCDNR Inshore Fisheries was awarded a special plaque as a thank you for his efforts at the last 27 of the tournaments.
- The longline survey, electrofishing survey and crustacean trawl (finfish bycatch) surveys all lost 1-2 days in August due to the effects of Hurricane Irene.
- Inshore Fisheries has been analyzing SCDNR sheepshead data as part of a joint effort considering potential new state regulations for the species once it is removed from the federally managed snapper-grouper complex.
- We have produced approximately 200,000 spotted sea trout and are conducting handling, rearing, growout and genetic studies.

Genetics:

- Most of the effort this reporting period was focused on preparing a proposal to NSF and the semi-annual report to Marfin. Work is progressing on the Marfin gag grant. All work is on schedule and the semi-annual report was submitted 29 August 2011. Tajima's D statistic is -1.81 ($p < 0.05$) for the 1990's samples and -1.71 for 2009-2010 ($0.05 < p < 0.10$), which is indicative of population expansion. However, such an expansion could be the results of shifting reproductive output from fewer older to more numerous younger females as a result of early sex reversal. The nuclear DNA analysis will be required to distinguish the alternatives. We will continue to sequence selected individuals from the remaining samples as needed to gain resolution for our final analyses. Dr. Chapman has been invited to present a talk at Clemson University October 10 on Marine Genomics at SCDNR. Dr. Chapman has also been asked to give a short presentation at a Biomarkers retreat at Wild Dunes on October 14th.

MIMES Program:

- Students completed the program submitting their final reports in a timely manner and participating in a high caliber, day-long research colloquium in collaboration with the MUSC Summer Undergraduate Research Program (SURP) OHH Track REU interns. A new proposal to continue this program at the MRD has been submitted (see details above).

Shellfish Research:

- *TNC-NOAA Oyster Castle Projects:* A final report, restoration evaluation plan and 2-page fact sheet for the 2009-2011 project were submitted to TNC-NOAA Global Marine Initiative staff. Plans are in place to construct new reefs next week for the new 2011-2013 proposal that was funded.
- *SC Sea Grant Triploid Project:* Jordan Felber, Ben Stone and John Heinsohn continued to invest considerable efforts into the husbandry of study animals at the Yonges Island nursery pond, as well as towards the distribution of known numbers and sizes of oysters from each of the three lines to industry participants (three of seven remaining). In addition, grow-out materials have been purchased and constructed for a number of the participants that did not have these at their disposal. The Shellfish Research Section is pleased to welcome Aaron Petty to their section as an hourly position secured through the end of December 2011 to assist with this project.

- *Energy Office Grant:* Kristin Schulte participated in a meeting with representatives from Santee Cooper and the Charleston Pilots Office to share information about the ship traffic data that she has processed. Jordan Felber has working on several GIS datasets for this project in collaboration with Jessica Boynton, including the Intermar database update. He is also following up on additional core data sets from the Army Corps of Engineers.
- *OFM support:* OFM-related efforts by Kristin Schulte this month have been almost exclusively focused on permit maps including the preparation of the large wall maps.
- *GSARP:* Draft agenda released for the fall GSARP Invasive Species meeting in Austin, Texas scheduled for October 4th-5th 2011.
- *College of Charleston:* Planning continues for the fall 2011 Colloquium and Committee Chair Kingsley-Smith has been responsible for coordinating abstract submissions by students (deadline September 2nd). Kingsley-Smith and Kristin Schulte participated in an online committee meeting for David Loy, an MES student interested in working on remote sensing and GIS approaches to oyster reef distribution.
- *Miscellaneous:* Kingsley-Smith is working with David Knott, Larry Delancey, Dany Burgess and others to coordinate and catalogue collections of non-native penaeid shrimp (*Penaeus monodon*). Sampling of the dock sites for the SWG project continues with the assistance of Matt Perkinson (Inshore Finfish Research Section).

Sustainable Mariculture/Crustacean Monitoring:

- *Sustainable Mariculture:* The commercial scale shrimp production raceway has been stocked with ~ 90,000 shrimp (a density of 503 /m³, 334 /m²). We are running the system at a reduced depth in order to achieve our desired stocking density. A severe lightening storm in July led to power outages and equipment failure, resulting in significant mortality of shrimp in the nursery tanks. Nevertheless, we were able to salvage enough to stock the raceway so that we can participate in an important multi-institutional comparative growout study, with other members of the US Marine Shrimp Farming Program. Preliminary efforts at raising larval blue crabs beyond the megalops stage were successful, although we need to improve survival. Crab fecundity and larval rearing work will continue as ovigerous females become available. We procured a backup generator to power the raceway greenhouse in preparation for Hurricane Irene. The generator will remain on site until the end of September, thus taking us through most of hurricane season. Pond and tank density work on *P. setiferus* for bait shrimp continues.
- *ACE Basin NERR:* Upchurch resumed work on the Critical Habitat mapping project by creating GIS datasets for coordinates for bald eagle and waterfowl data from Nemours Plantation. Working with Norman Levine at College of Charleston to develop a proposal to the NOAA Climate Program Office for site-specific synthesis and analysis of existing data from the ACE Basin NERR, including SWMP data and biomonitoring data. Submitted hiring packet for the Bio I SWMP position and submitted request for posting the Tech III SWMP position. Received initial comments of four reviewers of the Beaufort County Stormwater proposal submitted to the NERRS Science Collaborative. Reviews were generally positive. Must submit a response to the reviews by September 9. Final decision date will be in early October.
- *Crustacean Monitoring:* Based on trawl sampling, white shrimp numbers appear somewhat below average, as sampling south of Charleston was wrapping up near the end of the month. Black gill infection was pervasive. Blue crab numbers were low in samples, similar to previous years. DeLancey participating in ASMFC Horseshoe Crab Biomedical Ad hoc workgroup.
- *Seafood Benefits and Risks:* Analyzed NOAA-collected data on a benefit risk analysis of fish taken near Sapelo Island and Brunswick, GA. Compared human health impact of chemical contaminants versus beneficial fatty acids levels in the fish. Initial findings to be presented at a day-long workshop of NOAA and CDC collaborators on September 8.

Waddell Mariculture Center:

- The Waddell Mariculture Center provided 5 regular tours for 12 guests. In addition, 28 - 7th grade science class students from Hilton Head Prep took a tour of the facilities. Six biologists from Georgia DNR visited the center and participated in a discussion pertaining to fishery research efforts in SC and GA.
- The Technical College of the Lowcountry is finalizing a grant request for a solar power system to be installed at the center if all goes well.
- AI participated in the Hilton Head Island Water Quality Festival by manning a booth and handing out information. The festival was sponsored by Hilton Head Preparatory School.
- AI Assisted DNR Law Enforcement Officers during the Rockville Regatta.
- AI provided information to Bray's Island per their request. They are interested in dewatering a couple of their impoundments for renovation and they plan to relocate important fish captured in these ponds.
- The mariculture center experienced several power outages this past month due to lightning storms. Some aeration equipment, entrance gate, and alarm system was knocked out and required repairs. The center also lost power due to the failure of a three phase disconnect box. Palmetto Electric disconnected power while WMC maintenance personnel found parts and made repairs to the box. Palmetto Electric also cut down two, more than 100ft tall, pine trees that were leaning over the main power lines at the center. They also replaced an old transformer.
- The center has leased three generators for the remainder of the hurricane season. The generators have been hooked-up to the pond systems and tested.

Diadromous Fish:

- Staff has been primarily focused on downloading data and checking the status of each of the 275 acoustic receivers located throughout state coastal rivers and estuaries, in addition to implanting transmitters in sturgeons, primarily in the Edisto and PeeDee rivers. Staff is working to stay on top of organizing all of the incoming data from three states, as well as sampling for egressing stocked American shad juveniles. Negotiations with contractors to build elver ladders continued. Two newspaper articles came out about sturgeon activities, one on the Savannah River and the other on Santee-Cooper. An annual ASMFC compliance report for Atlantic sturgeon was submitted for inhouse review. Collaborative contacts were made with USFWS,

NMFS, power companies, a former sturgeon fisherman, and a coastal in-water tour company. A proposal to NMFS regarding an offshore acoustic receiver array off NC, SC, and GA was terminated because NC determined that it did not have the resources to participate.

In Water Sea Turtle Project:

- Antech diagnostic laboratory data (n=35 turtles) were imported to the server data base.
- Turtle photographs (n>500) were uploaded to the server and linked in the data base.
- Testosterone assays were completed and data uploaded to the server data base.
- EPMS reviews and planning stages for Mike Arendt and Jeff Schwenter were completed.
- Submitted ACCSTR Tagging Report, NMFS Permit Report, and GADNR Permit Report.
- FWC Permit Report was prepared but being held (at FWC request) until permit renewal.
- A permit modification request to increase the allowable annual take (live) of Kemps ridley sea turtles from 29 to 49 was submitted to NMFS given the collection of 33 Kemps ridley sea turtles this season, nearly double the previous annual record in the survey.
- Responded to a data request from the SC Aquarium pertaining to bycatch species.
- Provided a *Murex* sample (collected aboard the RV *Georgia Bulldog*) to SERTC.
- Mike Arendt was asked, and agreed, to be on the Program Committee for the Southeast Regional Sea Turtle Meeting to be held on Jekyll Island 1-4 February 2012.

Office of Fisheries Management (OFM):

Shellfish:

Commercial Management

4 permit holders requested verification for legally required shellfish culture permit plantings for 7 separate permits during July. Through calendar year 2011, 24 permit holders have requested planting verification on 51 different permits with 44 completing planting quotas for 2011. A total of 50,971 U.S. bushels of shellfish seed, green oyster shell, clam cover or approved cultch or cultivation has been verified. The assessed planting quota for the state's 121 culture permits is 85,353.2 U.S. bushels after taking into consideration permit cancellations, acreage reductions or increases, boundary modifications and approved variances. Shellfish seed may be planted throughout the calendar year, however by S.C. law (§ 50-5-940), cultch must be placed between 01 May and 31 August for credit.

Lee Taylor assessed five SSGs, completing the 2011 assessment of the status of State Shellfish Grounds. A total of 34 grounds were assessed this year. Lee presented recommendations to the Shellfish Permit Committee and other interested parties (e.g. Shellfish Research, Law Enforcement) on which grounds should be opened for commercial harvest this year. The group concurred with his recommendations for the commercial harvest status of SSGs for the 2011/2012 season. Maps are being prepared by Kristin Schulte and will be available prior to the season opening October 1.

Four mariculture permits were received. Conditional approval has been granted for one, and three are awaiting additional information. Three applications were received for each of two culture permits advertised in Beaufort County. C-254 north of Charleston has been surrendered and the SPC will decide whether to reissue it as a Culture Permit, subdivide it, or create an SSG. Three culture permits and one mariculture permit were amended/revised this month. Most revisions consisted of adding an additional permittee. Conditional approval was granted for a new Culture permit in Alligator Creek near McClellanville.

Two mariculture operators (3 permits) were notified of pending revocation due to delinquent reporting. One operator has submitted paperwork to surrender his permit. A pre-revocation hearing for the other is scheduled for September 7.

Shell recycling and planting; recreational management

7,420 bushels were planted on Oaks Creek in Murrells Inlet and 2,223 bushels were planted in the Sewee Bay by DNR's pushboat and barge this month, completing the SRFAC-funded shell planting for this season. The 2011 planting season created 2.31 acres of oyster habitat in three counties (see table) using 30,391 bushels of oyster shells.

Murrells Inlet / Georgetown County	10,225 bushels	0.9 acres
Sewee Bay / Charleston County	10,374 bushels	0.76 acres
May R. & Bull Cr. / Beaufort County	10,092 bushels	0.65 acres
Total	30,691 bushels	2.31 acres

Post planting photos were taken and oyster bed footprints were mapped for Georgetown and Charleston Counties, completing the post planting monitoring for the 2011 SRFAC plantings.

This month 16 new shellfish boundary signs were put out and 2 existing signs were mapped, completing 3 SSG's. The shellfish grounds were in Charleston County on the Wando River.

130 bushels of oyster shell were recycled this month from Kiawah.

Construction is underway for a new drop-off site in Myrtle Beach.

Mitigation projects

This year's Charleston Harbor planting for the State Ports Authority project was completed this month with two sites being planted, one new site on the Cooper River (0.1 acres/1200 bushels) and additional shell was added to an existing site on Hobcaw Creek (0.25 acres/2400 bushels). A total of 36,150 bushels were planted at 7 sites for the SPA project this summer. Footprints of three 2011 planting sites were mapped using the Trimble GPS to get accurate measurements of restoration sites, footprints for three other sites still

need to be mapped on the next suitable tide. Sediment samples were retrieved at 20 SPA sites where changes in sediment composition are being monitored pre and post shell deployment. Changes in *Spartina* growth patterns were mapped at four restoration sites.

Funding was received for the Calhoun Park mitigation which will be performed in conjunction with the MacAlloy mitigation starting next year.

Grant activities

ARRA (Stimulus) project:

Volunteers from Wells Fargo and the Charleston area assisted with deploying 400 bags at Daniel Island, this concluded our reef building season for 2011. A total of 5,565 bags were deployed by the SCORE Program this Summer. Approximately 524 square feet of *Spartina* marsh grass was planted at Daniel Island behind existing SCORE bags. Grass was collected by SMS staff from highly eroding shorelines adjacent to Charleston Harbor. Grasses were still in place after being battered by waves from Hurricane Irene.

Summer hourlies and interns conducted additional fish sampling on the Daniel Island reefs this month.

State Wildlife Grant:

Four volunteers were trained in water quality data collection at three sites (Riverland Terrace, East Cooper Marina, and Bristol Marina).

Hana Benton and Logan Bonner conducted fish sampling on the reefs at Ft. Johnson four times with the help of summer interns Bree Bess and Sarah Grimball. One employee was injured by a stingray and treated at the emergency room. All data has been entered into the fish sampling database.

The shellpile at Ft. Johnson has been cleaned, trimmed, and prepared for the 2011/2012 bagging season.

Allie Kreutzer and Stephen Czwartacki conducted an inclass lesson on reef biodiversity at Ashley Hall for the AP biology and environmental science classes. In total there were 32 students.

National Fish and Wildlife Federation:

Allie Kreutzer and Stephen Czwartacki met with Louie Hayward to discuss the education component of the NFWF grant, including a one day teacher workshop to be held at the Sewee Center. Two educational activities at McClellanville schools have been scheduled as part of this project.

Southeast Aquatic Resources Partnership-USFWS:

The first round of USFWS-SARP fieldwork has been completed with all the spatted shel taken from docks being planted on one reef on Bohicket Creek. 192 bags hanging from docks in the area were planted in the month of August making the total from round 1 (July/August) 448 bags planted on a 200m² tract of shoreline on Bohicket Creek. Thirty nine dockowners are hosting bags at this time. Slope was also measured at all 2010 and 2011 sites.

Southeast Aquatic Resources Partnership-NOAA: Slope and footprint data have been collected at all large scale planting sites (3) and SCORE reefs (1) planted/constructed for the NOAA-SARP grant this year. Baseline sediment samples from SCORE sites at Edisto and St. Pierre Creek were processed.

Atlantic Coast Fish Habitat Partnership – we are still awaiting funding agreements from USFWS for this grant.

Grant proposals

Stephen Czwartacki and Allison Kreutzer met with Louis Heyward to discuss the possibilities of a collaborative grant proposal. The vice-principal of Colleton County Middle School was contacted about possible participation in the proposed project.

Collaborations with other agencies and sections

Allie Kreutzer, Stephen Czwartacki, and Jared Hulteen met with EV Bell, Dave Joyner, Tripp Bolton and Kent Ware at the USFWS Bears Bluff Fish Hatchery to discuss the future of the Seeds 2 Shoreline program. We planned to work with a similar number of schools this year as we did last year, but discussed the possibility of hosting a teacher's workshop to limit the amount of visits we have to make to each school. Bears Bluff would like to be involved and may be able to provide some funding. We have included this project as a component in our recent SCORE proposals so some funding is available.

Personnel actions

Allison Kreutzer was hired as a Biologist I to fill the vacancy left by Holly Dyar's departure. Hana Benton and Logan Bonner resigned their hourly positions to pursue their academic studies. Four college students completed their summer internships.

Miscellaneous

Staff performed repairs to the keel of the Mudskipper – additional work still is needed. One of the SCORE shell trailers was taken to Corbin's Trailer Hitch to repair electrical issues.

Finfish:

The Artificial Reef Program received additional media coverage of its new partnership with Ready Mixed Concrete this month in a telephone interview with the South Carolina Radio Network.

Bob Martore gave a presentation on the Artificial Reef Program, and specifically the Lowcountry Anglers Reef, to the Lowcountry Anglers Fishing Club at St. Johns Yacht Harbor in Charleston.

PROGRAM STATUS REPORTS

Artificial Reef Management and Development

Artificial reef construction this month consisted of several tons of concrete, both designed modules and rubble from the Charleston Coast Guard station, deployed on the Charleston Nearshore Reef.

Sampling began this month on a new project looking at the presence and effect of lionfish on South Carolina artificial reefs.

Statistics:

General Activities

- Delinquent letters for late submission of July mandatory logbooks were mailed on August 17 (209 letters) to license holders for July reports not yet received by the August 10th deadline. The affidavit list which includes delinquent offenders for July and prior months was generated on September (64 offenders) and was over to the Law Enforcement Division.
- Several data requests were completed this month including Snapper/Grouper, Shrimp, Weakfish, and harvest numbers from State Shellfish Grounds.

Commercial Trip Interview Program

- August sampling efforts provided 19 commercial trips being sampled, *with* 398 length frequencies with 376 associated age structures being obtained.

State Finfish Survey Summary

- Creel Clerks intercepted 195 fishing parties with a total of 436 anglers interviewed during the month of July 2011. Fish measured included: 68 red drum, 6 spotted seatrout, 58 southern flounder, 30 southern kingfish, 42 sheepshead, 1 black drum, 25 Atlantic Croaker, 4 king mackerel, 1 Spanish Mackerel, 10 pinfish, 3 black sea bass, 4 Atlantic Sharpnose, 1 blacktip shark, 1 dolphin, 1 white grunt, 4 southern kingfish, 1 pigfish, 3 Atlantic Spadefish and 2 spot. Otoliths were collected from black drum (1) and Atlantic Croaker (9) for the inshore fisheries section of MRD.
- Several data requests were completed in August regarding shore based interviews in Horry & Georgetown counties, Atlantic Croaker lengths and 2010 weakfish data.

Additional activities during the month of August included: working closely with commercial seafood dealers to ensure compliance with reporting, assisting DNR's oyster shell recycling program, distributing rules & regulations books and fish rulers to coastal businesses as requested, and participating in SCDNR's MARMAP cruises.

WILDLIFE AND FRESHWATER FISHERIES

DEPUTY DIRECTOR'S OFFICE

A meeting of the Enrich South Carolina Coalition was attended in Columbia. A meeting was attended with DNR staff and a representative of Environmental Banc and Exchange, LLC to discuss a potential mitigation bank adjacent to DNR property. The Heritage Trust Advisory Board meeting was attended at the Department of Archives and History. The Waterfowl Advisory Committee meeting was coordinated and staffed, and a recommendation on the 2011-12 waterfowl season relayed to the DNR Board. The Migratory Waterfowl Committee meeting was attended. A meeting was held with Deputy Directors Boyles and Rentiers and the Director McGee to discuss a Career Path for biologists and technicians. A luncheon for departing Region II Fisheries Coordinator Liz Osier was attended in Florence. The monthly Deputy Directors' and DNR Board meetings were attended. Field visits to inspect WMAs/Heritage Preserves were made to properties in Laurens, Aiken, McCormick and York counties, as well as Lakes Cherokee and Long. A meeting of the DNR Black Bear Task Force was attended, and a public meeting to gather comments on a proposed limited coastal black bear season was organized and attended in Georgetown County. A Steering Committee meeting of the South Atlantic Landscape Conservation Cooperative was attended via conference call.

Assistant Deputy Director

Reviewed and took action on various administrative and budgetary matters. Completed EPMS reviews of four employees. Obtained survey of encroachment on agency property in Richland County. Continued to assist with land acquisition in Laurens County. Inspected structure on agency property in Darlington County with environmental and engineering consultant. Meetings and events attended: DNR Board meeting; Heritage Trust Advisory Board meeting; Waterfowl Advisory Committee meeting; Corps of Engineers meeting regarding lands adjoining Lake Russell; agency meeting on Career Path; agency meeting on document management; conference call for SC Rural Alliance; Enrich SC meeting; meeting with Environmental Banc and Exchange; and meeting with DOT concerning potential bridge replacement on agency property.

Public Information Director

Participated in CPM monthly class; Received WMA maps; Worked with Tread Lightly on kiosk signage; Attended Social Crush social media workshop; Coordinated and attended Document Management System for public lands meeting; Coordinated outreach efforts for Black Bear public comments; Attended Upstate Hunting and Fishing Expo; Participated in Fisheries Coordinator's conference call; Continued implementation of fishing, hunting, invasive species, apprentice license and tree stand safety marketing and outreach campaigns; continued work on wildlife and freshwater fisheries press releases and publications; Attended bear meeting in Georgetown County.

Office of Environmental Programs

Permitting and Review

Staff coordinated 59 DNR reviews (12 COE, 22 DHEC, 16 State Clearinghouse, 9 Misc.) of environmental permits and authorizations for the 38 inland counties. Staff attended a stream restoration/mitigation workshop sponsored by the Army Corps of Engineers in Charleston.

FERC Projects

FERC Hydro Projects:

Buzzard Roost Hydro Project (P-1267) – Staff responded to notice of drought contingency operations at the project, which will affect downstream minimum flows to the Saluda River; Keowee-Toxaway (KT) Hydro Project (P-2503) – Relicensing process continues: Staff participated in a KT Stakeholder Team meeting (on Aug 4) and began review of Duke's Proposed Study Plan; Riverdale Hydro Project (P-13590) – Relicensing process continues. Staff submitted (on Aug 17) additional written comments to address Lockhart Power's responses to FERC's Additional Information Request regarding Lockhart's License Application for Riverdale hydro project; Neal Shoals Hydro Project (P-2315) – Staff responded to a request from SCE&G to allow drawdown of the impoundment at Neal Shoal to enable repairs of sand gates in safer conditions than their original proposal which was to conduct repairs under water. Saluda Hydro Project (P-516) – Staff participated in Striped Bass Flow Adaptive Management Team meeting (Aug 24) to continue developing an annual report template. Staff joined SCE&G staff on Lake Murray site visit (Aug 25) to see dead/dying shoreline vegetation resulting from high lake-level conditions.

Pacolet Hydroelectric Project (P-2621) – FERC ordered (Jul 20) a new license to be issued for the Pacolet Project. Staff reviewed the new license order and subsequent comments and corrections submitted to FERC by Lockhart Power on Aug 19; Broad River Fisheries Mitigation Trust Fund, staff addressed a new project proposal that would assess dam removal opportunities in the Broad River Basin and staff scheduled a meeting for Sep 12 with the Basin Trustees to further consider the proposed project in concept.

WILDLIFE SECTION

The 2011/12 Public Dove Field List was compiled and printed.

Public dove field preparation continued throughout the state.

A reported 68 hogs were removed from Marsh, Bonneau Ferry, Francis Marion NF, Webb and Jocassee WMAs during August.

Through August, 1,560 Antlerless Deer Quota Program applications have been processed.

Four alligator seminars were held with 250 people attending. 835 selected hunters have purchased their public lands alligator tags and 15 selected hunters have purchased their WMA alligator tags. 596 Private Lands alligator tags have been approved for 28,845 acres of wetlands on 47 properties.

The Private Lands Alligator Hunting Guide was updated and printed.

Dove banding was completed during the month with 1,997 Mourning doves banded this year.

CWD sample collections began in August.

The fawn mortality study continued this month.

Staff attended the National Bobwhite Technical Committee meeting, the SC Plantation Managers Association meeting, the SC Farm Bureau Wildlife Committee meeting, the Jocassee Working Group meeting, the Heritage Trust Advisory Board meeting, Partners for the Blue Ridge meeting, the Western Hemisphere Shorebird meeting and the Sandhills Longleaf Conservation Partnership meeting.

The Nuisance Wildlife Control Operators list was updated for the DNR webpage.

The Mottled duck research project was assisted with 29 ducks instrumented and 310 mottled ducks banded.

Region 4 staff handled 9 bear calls and Region 1 responded to 63 bear calls with 2 bears relocated and 1 bear killed by vehicle in August.

The White-nosed Syndrome Response Plan revision was completed. A bat roosting tower was erected at Hamilton Ridge WMA.

Information was provided and draft review conducted for the new Migratory Game Bird Hunting Guidebook.

The 2011 Bobwhite Quail Whistling Cock Survey report was completed and distributed to cooperators.

Digitizing and mapping continued for Safe Harbor Properties. Five annual Safe Harbor site visits were conducted, 3 post-treatment LIP site visits conducted and 1 Safe Harbor agreement prepared.

Woodstork nesting was monitored during the month at Donnelley WMA and Dungannon HP.

Field camera surveys were initiated to collect data on doe:fawn ratios at Webb WMA and Bonneau Ferry WMA.

Staff held a public meeting at Waccamaw National Wildlife Refuge to receive input on the coastal black bear hunting season proposal.

Heavy public use of Botany Bay Plantation continued with 5,398 visitors to the area during August. Two horseback groups containing 4 riders used Botany Bay during August.

Heritage Preserve activities included 166 staff site visits and 1 field trip conducted. Exotic vegetation control was conducted on 8 HPs requiring 29 hours and 7 acres treated. Agricultural activities included 31 acres mowed, 1.1 acres treated with herbicide, 4.5 miles of firelanes disced, 19 miles of roads mowed, 13 miles of road scraped, 2 miles of roads graveled and 2 miles of trail mowed. At Longleaf Pine HP, Schwalbea restoration monitoring and an Oxpolis stem count was conducted. Ten miles of roadsides were mowed at Lewis Ocean Bay HP. Downed trees were removed from roads and trails at Chestnut Ridge HP and Stumphouse Mountain HP. At Great Pee Dee River HP, 4300 feet of boundary was cleared and painted and 3 miles of access roads graded. At 40-acre Rock HP, 2700 feet of boundary were cleared and painted.

Data analysis required 8.5 man/days. Management recommendations were provided to 12 landowners. Other agencies were provided assistance on 12 occasions requiring 8.25 man/days. Two environmental reviews were conducted. 482 nuisance wildlife investigations were conducted including 96 nuisance alligators and 22 site visits. Slide presentations were given to 10 groups totaling 585 people. Three workshops were given with 250 people in attendance. Waterlevel management required 63 man/days. Twelve news releases were submitted. Surveys included turkey and quail brood surveys, 17 black bear scent station surveys and 1 RCW cavity survey covering 200 acres. 334 bluebird box checks and 302 woodduck box checks were conducted. Birds banded included 124 woodducks, 310 mottled ducks and 1 ringnecked duck. Three deer spotlight surveys were conducted on the Francis Marion National Forest.

Field agricultural activities included 127.5 acres annuals planted, 837 acres mowed, 588 acres disced, 130 acres burned, 119 acres fertilized, 23 acres limed and 836 acres treated with herbicide. Approximately 38 miles of fire lane were disced, 371,296 linear feet of dike mowed, 600 feet of dike re-topped, 172.2 miles of roads mowed, 28 miles of roads scraped, 1 mile of road graveled and 3 miles of roads were re-constructed. Two miles of trails were mowed. 67 WMA signs were erected on 113 miles of boundary, 131 safety zone signs posted, 4 road closed signs posted, 155 dove field signs were posted, 62 HP boundary signs posted and 68 misc. signs erected. Seven gates were re-furbished. At Donnelley WMA, 5 acres of bamboo were roller chopped. On Bear Island WMA, 600' of dike was re-topped and 75

tons of gravel placed on West Side Unit dikes. 20 acres of understory was treated with herbicide and 20 miles of road edges sprayed at Webb WMA. The exterior of the equipment shed and storage building at Webb was painted. 22 acres of meadow habitat were drum chopped and 60 tons of gravel placed on access roads at Jocassee WMA. Six staff made 11 contacts with 7 NGOs during the month.

FRESHWATER FISHERIES:

Freshwater Fisheries Coordination and Administration (Chief's Office)

Staff met with the Natural Resource Trustees and Schlumberger to address issues with finalizing sediment removal in Twelvemile Creek in order to move forward with the final stages of the removal of the Woodside II dam.

Met with Region 2 staff and State Lakes maintenance staff to plan for lake maintenance and management activities for FY12.

Staff participated in a PAG conference call.

Staff attended the ASMFC meeting in Alexandria VA.

Staff made a site visit and inspection of the dredging and dam removal activities on Twelvemile Creek.

Staff conducted a conference call of the Freshwater Fisheries Coordinators to discuss administrative issues and project activities.

Met with Region 2 staff to discuss project activities, priorities and strategies for address management issues until such time as the vacant Coordinator position can be filled.

Region I

Completed 8 reference stream electrofishing surveys.

Picked up and replaced reference stream temp loggers, and grabbed water samples. Entered data in database.

Continued conducting stream habitat surveys on Jocassee Gorges streams in conjunction with the SARP/EBTJV Grant - completed habitat assessment on Willis Creek and started Emory Creek.

Picked up stream temp loggers and water samples from Jocassee Gorge streams and entered/ran habitat assessment (BVET) data

Received water quality data for spring sample period for over 40 stream sites on Jocassee.

Deployed temp loggers on Crane Creek and Tamassee Creek

Assisted USACE in planting 2000 maidencane on Lake Hartwell

Participated in litter pick-up on Tugaloo Lake (Bull Sluice). The sweep removed over 580 pounds of litter and 46 tires from the lake.

Made a presentation on the Jocassee Gorges stream assessment project to the Jocassee Gorges Working Group Committee

Completed two fish kill investigations. One on Hurricane Creek in Anderson County (near Pelzer) resulted in no dead fish observed, but we did report a large drum in the creek to SCDHEC. The second involved a reported oil slick on Lake Keowee, which turned out to be organic material.

Completed EPMS reviews with all Region 1 Fisheries employees

Assisted four pond owners with technical advice.

Spent two days preparing supplies and equipment for Hurricane Irene

Assisted USACE in locating future water willow sites on Lake Russell

Closed the fishing pier at Russell ponds due to structure integrity

Met with USAC, DNR state lakes crew and DNR engineering to address rehabilitation of the fishing pier at Russell Ponds in Calhoun Falls and to address ADA access needs.

Performed routine maintenance at Russell Pond (cut grass, check trails)

Assisted DNR State lakes crew with fish feeders at Lake Johnson

Conducted general maintenance at the GWD office (cut grass and maintained equipment)

Continued ongoing creel surveys on Lakes Keowee and Greenwood.

Continued trout stocking in mountain streams on schedule

Completed and submitted Region 1 federal aid report for the Sport Fish Project

Met with NRCS District Conservationist and Engineer to inspect a bank erosion problem at a trout stocking site on Eastatoe River.

Attended a Fisheries Coordinator Meeting in Florence where out-going coordinator Liz Osier was honored.

Attend the Aquatic Plant Management Society meeting at the Madren Center at Clemson University.

Made two visits to monitor turbidity and sediment removal from Twelve-Mile Creek.

The Cleveland fishing lease on Middle Saluda River was renewed. The area has been reopened for public fishing.

Region II

Annual fish population survey for the Statewide Stream Assessment continued with eight streams being sampled

during August.

Staff assisted with a Family Fishing Event sponsored by DNR Education Section which was held at Cohen Campbell Fish Hatchery.

Staff attended a planning session with DNR State Lakes Crew regarding the eleven state lakes in Region 2.

Staff continued work on the Fisherman's Access Trail at Lake Oliphant by spreading gravel in selected areas and clearing downed trees off the trail.

Staff readied equipment for possible disaster relief response to Hurricane Irene.

Staff attended a planning session with FWF Chief Ross Self regarding Region 2 activities after the departure of Project Leader Elizabeth Osier.

Staff responded to pond management inquiries from eight private pond owners via telephone, email, mail, &/or fax response.

Region III

Reservoir Management

Work continued on updating the Lake Murray Management Plan

Monitoring for striped bass summer mortality at Lake Murray was done on a weekly basis.

Stream Management

Reconnaissance and summer sampling via electrofishing was completed in the lower Broad River

Work was done to prepare for Redbreast sunfish collection and marking in the Edisto River.

Electrofishing was conducted in the lower Combahee River to monitor the extent of the salt water intrusion due to the drought. Saltwater intrusion was documented a considerable distance upriver and the freshwater fish community has been displaced upstream significantly. In addition,

Low water levels in the Edisto River appear to possibly have surpassed historic 2002 drought level.

Staff assisted the statewide stream survey team with two surveys in Region 3.

Other

Staff attended a striped bass adaptive management team meeting

Staff assisted the Outreach and Support Services Division on a special project.

Reconnaissance of the Lower Saluda River was conducted for a planned future study.

Data analysis was completed and drafting of the 2011 Annual Report F-63-16 was conducted.

Routine maintenance on boats and equipment was completed.

EPMS evaluations were completed for Regional staff

Staff responded to 13 inquiries regarding fish pond management and aquatic vegetation control

Staff attended the annual S.C. Aquatic Plant Management Society meeting held in Clemson.

Region IV

Night electro-fishing assessment of juvenile striped bass, American shad, and white perch growth and abundance was conducted in lakes Marion and Moultrie.

Project personnel performed two striped bass electrofishing sample of the freshwater section of the Ashley River in coordination with the MRD mariculture section.

Chad Holbrook submitted a manuscript to the North American Journal of Fisheries Management regarding telemetry tag retention in blue catfish.

Scott Lamprecht worked on the final edit of an article for publication in the Striped Bass Symposium Summary.

2011 Waccamaw River LMB survey data was analyzed and work on a presentation for the Conway Bassmasters was begun.

Santee Cooper grass carp, collected for age, growth, and mortality estimates, were processed (weight, length, otolith removed) for the cooperative study with Santee Cooper, and the Army Corps of Engineers.

Personnel completed two stream surveys, and observed numerous other reference streams that were either dry or currently had too much water to sample (thank you hit and miss pop-up thunderstorms).

Correspondence was provided to a property owner, who was interested in our stream survey project; particularly Lyons Creek in Calhoun County.

Project personnel performed a hurricane shakedown, gathering all equipment, filling gas tanks, tying down boats, and starting auxiliary power equipment.

The annual meeting of the SC Aquatic Plant Management Society was attended.

Project personnel helped survey hydrilla re-growth in Lake Marion.

Striped bass mortalities were surveyed along East Dike.

11 pond owners were assisted with pond management questions and issues.

Hatchery Coordination

Hatchery Staff certified 3,326 grass carp as triploid and issued 2 permits for those fish to be sold statewide.

Hatchery staff participated in the monthly Freshwater Fisheries Coordinator Meeting at via conference call.

Staff coordinated with engineers on the Cohen Campbell Fish Hatchery construction project and with Designers for the Bayless Hatchery Shad Facility Modifications. The Cohen Campbell Hatchery Project should be put out to bid when the stormwater permit review is complete.

Staff met with Southland Fisheries and USFWS staff to discuss the status of Southland's Grass Carp Permit and to ensure that they were in compliance. They appeared to be in compliance with the federal guidelines.

During the month of August 32,016 trout were stocked from the Walhalla State Fish Hatchery into SC trout waters. Very warm temperatures and little rain have caused unusually challenging conditions for trout at the Walhalla State Fish Hatchery this month. High temperatures and low rainfall have combined to make maintaining adequate dissolved oxygen levels extremely difficult. As August concluded, the hatchery was attempting to operate at 56% of its normal stream flow. Staff has been staying up overnight in some cases to move fish and aeration equipment to save fish. Staff was able to prevent a major fish die-off due to their efforts and should be commended for their efforts.

Staff attended the SCAPMS meeting to stay current on methods and regulatory changes pertaining to aquatic weed management. Hatchery staff gave a presentation at the SCAPMS meeting to remind attendees of the rules and requirements to stock or possess grass carp in SC.

Outreach

Weekly trout stocking reports continue to be updated on the SCDNR website.

Walhalla State Fish Hatchery continues to have high visitation.

Cohen Campbell hatchery, Dennis Wildlife Center, Cheraw hatchery, and Spring Stephens hatchery all reported normal visitation.

State Lakes

Sprayed aquatic weeds at Mtn. Lakes I, Webb Center and Lake Warren.

Cut grass at Starfort, Jonesville Res., Draper WMA, Dargan's Pond, and Lake Brown.

Spread 20 tons of crush and run gravel on entrance road at Sunrise Lake.

Fertilized lakes Cherokee, Starfort, Jonesville Res, Sunrise, Mtn. Lakes I and II, Lake Oliphant and Lake Long.

Collected soil samples at Starfort, Lake Cherokee, Lake Johnson, Mtn. Lakes I and II, Lake Long, Lake Oliphant, Sunrise Lake and Jonesville Res.

All three staff members attended the Aquatic Plant Mgt. Society Meeting in Clemson.

Held meeting with Region 2 staff on upcoming year plans for State Lakes.

Maintained fish feeders on Lake Johnson.

Provided Chapin Elementary School with Bluegill, Redbreast and Channel Catfish for their aquarium.

Diadromous Fishes

Efforts this month included: Gillnetting for and implanting transmitters in shortnose and Atlantic sturgeon in the Edisto and Pee Dee Rivers, weekly downloading of acoustic receivers to track sturgeon movements on the Santee, Waccamaw, Pee Dee, Edisto, Combahee, and Savannah Rivers, Electro-fishing for juvenile shad in the Santee-Cooper Basin, Edisto, Pee Dee, and Savannah Rivers, coordinating with Bears Bluff National Fish Hatchery (BBNFH) concerning continuing Edisto River shad stock enhancement work, and monitoring elver ingress at St. Stephen Dam. Routine maintenance was also performed on vehicles and boats. Staff completed and submitted all EPMS evaluations to Human Resources.

Multi-State Sturgeon Research

Coordination between cooperating states (NC & GA) continue. Field efforts continue weekly.

Juvenile American shad monitoring

Because the Atlantic States Marine Fisheries Commission (ASMFC) mandated cooperating states prove river specific fisheries for American shad are sustainable or close those fisheries, SCDNR began sampling for juvenile shad to develop abundance indices. Collection sites have been identified and this month sampling occurred in the Pee Dee River (Cheraw, SC to Society Hill), in the Edisto River (Martin's Landing to Jacksonboro, SC), and the Savannah River (Purrysburg Landing to Millstone Landing). By continuing to sample on a weekly basis during juvenile shad outmigration, SCDNR will use these data, combined with other fishery-independent data and landings, to demonstrate recruitment is occurring and fisheries, in these rivers, appear to be sustainable.

Meetings and Outreach

Personnel participated in numerous conference calls and meetings concerning ASMFC shad and river herring Amendment 3, NMFS protected resources, and the Santee Accord. Staff attended a site visit at the New Savannah Bluff Lock and Dam (NSBL&D) with employees from GADNR, NMFS, and USACOE to discuss fish passage alternatives for sturgeon. Personnel also met this month with The Nature Conservancy and Duke Energy to discuss other matters.

Research

Initial efforts to assess energy content with calorimetry of stocked striped bass were successfully performed at the

University of South Carolina. Prior to running the full set of samples, sulfur content was determined on a sub-sample of fish by Santee-Cooper analytical lab.

A meeting of the Adaptive Management Team for striped bass spawning flows out of Lake Murray dam was attended.

A staff meeting was held to discuss the upcoming Broad River sediment/fish habitat study.

Several manuscripts were reviewed and edited for the book, *Biology and Management of Inland Striped Bass and Hybrid Striped Bass*.

The Stream Team sampled seven sites, marking the completion of scheduled sampling in the following ecobasins: ACE basin/Sand Hills, ACE basin/Atlantic Southern Loam Plains, and Broad basin/Outer Piedmont. The yearly total stands at 56 sites sampled.

We participated in a conference call with SARP's science and data committee to review the efficacy and accuracy of preliminary modeling output regarding the OH/TN/Cumberland aquatic habitat assessment.

We met with J. Grego, as part of our DNR statistical contract, to discuss methods to compare the performance of four potential modeling techniques for stream assessment data.

We completed extractions of geomorphological metrics from our stream assessment cross-sectional data; this information will be included in our modeling efforts in attempt to relate community composition to the diversity of channel forms encountered in the coastal plain.

We continued work on preparation of higher resolution digital elevation models pursuant to the delineation of all watersheds sampled in the SC Stream Assessment, needed steps prior to landscape variable extraction.

We continued work on Freshwater Fish, Crayfish, Mussel, and Habitat Sections for the CWCS revision.

We compiled data from the Stream Web database in preparation for writing reports and technical publications.

Work continued on the Thurmond striped bass telemetry project. Temperature dissolved oxygen profiles were collected on one date. Nine days were spent downloading and maintaining receivers. Data downloaded from receivers during July and August was processed.

During August eel traps at Wateree and Columbia dams were checked on five dates. Traps at Columbia Dam were unable to maintain siphon during August due to low water levels in the Broad River. Because traps were not functioning at Columbia Dam backpack electrofishing was conducted once each week. Backpack electrofishing was conducted at Wateree Dam on one date. No eels were captured during August in traps or during electrofishing. Temperature loggers at each study site were removed, downloaded and replaced.

Work continued on our project to describe the first year growth and diet of several key fish species in the Santee-Cooper Lakes. Night electrofishing was conducted at two Lake Marion sites on 10 August. A student intern who worked on describing the diet of juvenile fish collected from Lake Marion presented here findings to Fisheries Research staff at the Eastover office.

EPMS reviews were conducted for all full-time staff members.

Edits were made to manuscripts on catch and release mortality and gill net selectivity for striped bass.

We met with Clemson faculty and graduate students concerning collaboration on Stream Assessment data analyses and publication preparation.

An article on the South Carolina Stream Assessment was finalized for publication in the September-October 2011 issue of South Carolina Wildlife magazine.

Staff is working on a manuscript incorporating final results of benthic sampling in Lake Marion in 2009-2010.

Staff presented an invited paper entitled, "Changes in Holocene vegetation of the Sandhills: influenced by climate, driven by fire?" The symposium was organized by the North Carolina Office of State Archaeology.

Staff spent four days assisting Fisheries Regions II and III with stream sampling and sampling of the Broad River, respectively.

Three project vehicles were taken in for major repairs.

Assistance was provided to Region II in the Farewell Dinner for Regional Coordinator Liz Osier.

The semi-annual newsletter for Fisheries Technicians was compiled/written. A meeting of Wildlife Technicians was attended as well, to share with them details of the Fisheries Technicians' organization, newsletter and annual meeting.

We spent time gathering supplies and ensuring all equipment is in hurricane readiness.

Archived tissue and whole fish samples were inventoried and maintenance accomplished on two lab storage freezers.

The Oolenoy River was scouted and sampled for redeye bass. This was in follow up to the collection of one fish in 2009, and part of an effort to assess the Saluda portion of the Santee drainage for redeye bass populations. Typical redeye bass habitat was present but limited in the Oolenoy, and black bass collections were limited to largemouth.

We completed first reads on a blind set of redbreast otoliths from the 2010 year class, marked and unmarked, for oxytetracycline. This is part of an effort to evaluate contribution of stocked redbreast sunfish to the Edisto River.

Law Enforcement

DIVISION SUMMARY – COL ALVIN TAYLOR

Officers issued 663 summons and 2,114 warnings with 909 cases clearing court with fines totaling \$134,282.09 being assessed. A total of 4,040.5 hours were spent on boating patrols resulting in 7,298 boats being checked. Officers spent 433.5 hours on Homeland Security; 841 hours on litter patrols and a total of 141 hours were spent patrolling Heritage Trust Preserve properties. Officers also spent 2,246.5 hours on night patrols. A total of 218 JEA hours were worked.

Region 1 - CPT Mark Carey

Officers issued 155 summons and 507 warnings with 224 cases clearing court with fines totaling \$32,808.49 being assessed. Officers checked 1,789 fishermen and a total of 689 hours were spent on boating patrols resulting in 1,772 boaters checked. Officers gave a total of 44 public presentations. Officers spent 258 hours on Homeland Security, 253 hours on litter patrols. A total of 46 hours were spent patrolling Heritage Trust Preserve properties. A total of 16 hours were spent patrolling Jocassee Gorges. Officers also spent 326 hours on night patrols. During the month there were 2 boating accidents reported.

Captain's Spotlight:

- While working a litter sweep of Bull Sluice Lake, 1st SGT Riley and CPL Barnett came upon 2 jon boats with 4 subjects leaving a camping area. Upon looking around the camp site noticed evidence of wire being taken from a high tension line. 1st SGT Riley, CPL Barnett stopped the boat at the ramp and under a blanket discovered approx \$25k in copper wire had been stolen from towers crossing the lake. Oconee Sheriff's office has had an active investigation on going for 8 months. Total of 56 miles of line have been stolen.

Unit 1A (Oconee / Pickens) 1st SGT D.J. Riley

Officers issued 23 summons and 147 warnings with 47 cases cleared court with fines totaling \$7,170.00 being assessed.

- SGT Busha spent 17 hours working on a bait site resulting in 2 cases being made for baiting bears.

Unit 1B (Greenville / Spartanburg) 1st SGT Amy Staton

Officers issued 34 summons and 93 warnings with 40 cases cleared court with fines totaling \$5,114.49 being assessed.

- CPL Anders assisted in Laurens County in recovering a body from a pond that was in a carjacking in Anderson, wrecked 2 other cars, and escaped from the police after being shot with a taser.
- CPL Cooper apprehended 2 different PWC's operating 45 minutes and an hour and fifteen minutes after official sunset. On one of the PWC's, neither the operator nor the passenger was wearing PFD's.

Unit 1C (Cherokee / Union) 1st SGT John McCraw

Officers issued 16 summons and 13 warnings with 19 cases cleared court with fines totaling \$1,549.00 being assessed.

- Officer Smith assisted Spartanburg and Union County Sheriff Deputy's with the search of 4 kids missing along the Enoree River. The teenagers were found safe in a tree stand along the river at 2:30am.

Unit 1D (Greenwood / Laurens) 1st SGT Kristie Lumley

Officers issued 62 summons and 178 warnings with 80 cases cleared court with fines totaling \$11,810.00 being assessed.

- SGT's Dudley, Cline and Vaughn worked a TOMO event at Northwest Fire Department.
- CPL Welch apprehended a subject fishing unmarked jugs, with illegal bait (crappie), and catching game fish with net, while working Lake Greenwood.
- LT Landrum and CPL Welch assisted Laurens Sheriff's Office chasing an armed robbery suspect into the woods. The search was called off near a pond which later led to the DNR dive team recovering the suspect's body in a local pond.
- CPL Welch and PFC Maxwell located a Meth lab dumpsite. CPL Welch also found 3 subjects cooking Meth on Enoree River.

Unit 1E (Abbeville / Anderson) 1st SGT Rhett Barwick

Officers issued 6 summons and 31 warnings with 12 cases cleared court with fines totaling \$2,130.00 being assessed.

- SGT Owens assisted Wildlife Basic Class with Boating in Charleston for 2 weeks.
- Unit 1E Officers worked the TOMO trailer at a 2 day event at the Anderson Civic center "Premier Outfitters Sportsman Show" there were several hundred participants.

Unit 1F (Edgefield / McCormick) 1st SGT Ron Talbert

Officers issued 14 summons and 45 warnings with 26 cases cleared court with fines totaling \$5,035.00 being assessed.

- 1st SGT Talbert, CPL Bridges and PFC Cutter did a public presentation in McCormick to approximately 100 kids using the TOMO trailer.
- 1st SGT Talbert and PFC Baker wrote a case for under sized striped bass in the Savannah River.

Region 2 - CPT William Poole

Officers issued 106 summons and 243 warnings with 155 cases clearing court with fines of \$15,732.00 being assessed. Officers checked 35 hunters and 1,286 fishermen, and a total of 619.50 hours were spent on boating patrols resulting in 1,148 boats inspected. Officers spent 29 hours on Homeland Security and 174 hours on litter patrols, and a total of 25 hours were spent patrolling Heritage Trust Preserve properties. Officers gave a total of 26 public presentations. Officers also spent 439.50 hours on night patrols. There were no hunting accidents, one (1) boating accident, and zero (0) drowning.

Captain's Spotlight

- SGT McCaskill and CPL Lowery made two night deer hunting cases in Kershaw County.
- Unit E made three night deer hunting cases.

Unit 2A (Chester, Lancaster, York) 1st SGT Todd Campbell

Officers issued 24 summons and 88 warnings with 77 cases clearing court with fines totaling \$8,995.00 being assessed.

- CPL Hanna and SGT Coates caught a subject using jugs to fish with on Lake Wateree, the subject also took game fish with cast net and illegal bait on a non game fishing device. He also had several boating violations.
- SGT Vic Hayes and PFC Charlotte Mayhugh worked one boating accident on Fishing Creek Lake, resulting in a boat sinking.

Unit 2B (Fairfield, Kershaw, Lee) 1st SGT Joey Cobb

Officers issued 49 summons and 68 warnings with 45 cases clearing court with fines totaling 4,230.00 being assessed.

- Unit 2B welcomes three new officers to the unit, James Bessinger, Brooks Woodlief, and William Coleman Jr.
- SGT McCaskill and CPL Lowery made two night deer hunting cases in Kershaw County.

Unit 2C (Chesterfield, Dillon, Marlboro) 1st SGT John Hillian

Officers issued 10 summons and 31 warnings with 19 cases clearing court with fines totaling \$1,176.00 being assessed.

- CPL Walters and PFC Jacobs wrote several boating contacts while assisting with boating patrols on the ICW.
- SGT Roberts worked a JEA patrol with Horry County Officers.
- SGT Covington is investigating a videotaped night deer hunting case in Marlboro County. Several charges for night deer hunting will be made.
- SGT Roberts and SGT Covington both taught Hunter Education this month.

Unit 2D (Darlington, Florence) 1st SGT Benjy Byers

Officers issued 14 summons and 41 warnings with 8 cases clearing court with fines totaling \$486.00 being assessed.

- This month officers from Unit D patrolled the rivers and lakes checking fishermen and boating activity.
- PFC Driggers and Perry went to Data Master Class Academy.

Unit 2E (Marion, Williamsburg) 1st SGT Bill Huggins

Officers issued 9 summons and 15 warnings with 6 cases clearing court with fines totaling \$845.00 being assessed.

- 1st SGT Huggins along with SGT Kelley, SGT McKnight and CPL Tanner spent considerable hours on night patrols due to low water and little fishing activity. These night patrols resulted in three night deer hunting cases.

Region 3 - CPT Harvin Brock

Officers issued 115 summons and 357 warnings with 172 cases clearing court with fines of \$27,396.50 being assessed. A total of 699 hours were spent on boating patrols resulting in 1,368 boaters checked. Officers spent 95.5 hours on Homeland Security; 274 hours on litter patrols and a total of 21 hours were spent patrolling Heritage Trust Preserve properties. Officers gave a total of 18 public presentations. Officers also spent 807 hours on night patrols.

Captain's Spotlight

- SGT Robinson and CPL Johnson took a call from a complainant about a neighbor hunting within 300 yards of their residence. Upon investigating, they got him to confess to Hunting within 300 Yards of a Residence, Illegal Killing of Antlerless Deer, and Littering the carcass on another neighbor's property.
- SGT Smith and SGT Derrick worked litter patrols along the Congaree River walk resulting in 13 litter cases being made.

Unit 3A (Lexington/Saluda) 1st SGT Ken Simmons

Officers issued 62 summons and 148 warnings with 67 cases clearing court with fines totaling \$10,072.50 being assessed.

- Unit 3A officers spent many hours in the day and night this month searching for and documenting dove bait throughout Lexington and Saluda counties.
- 1st SGT Simmons, SGTs DeRienzo, Smith, Derrick, Bickley, and CPL Johnson assisted West Columbia PD with a River Saturation concentrating on litter and underage drinking. Numerous violations were made for the above offences as well as boating and fishing violations.
- SGT DeRienzo made a BUI on Lake Murray this month.
- CPL Johnson made a case for Over the Limit of Striped Bass on Lake Murray.
- SGT Robinson and CPL Johnson gave a program at Red Bank Baptist Church utilizing the hunting simulator trailer.

Unit 3B (Newberry/Richland) 1st SGT Dudley Britt

Officers issued 21 summons and 143 warnings with 43 cases clearing court with fines totaling \$6,348.00 being assessed.

- 1st Sgt Britt and SGT's Barnes and Potter held a public presentation with the TOMO fishing simulator in Richland County. The "Back to school Bash" had a reported attendance of 1,500-1,700 children. The simulator was by far the most popular display.
- SGT's Bickley and Potter assisted RCSD with the recovery of a vehicle from the Congaree River at Rosewood landing.
- SGT Bickley recovered a drowning victim's body in Laurens County.
- SGT Cope located an illegal landfill in Newberry County while looking for dove bait. He and DHEC are investigating.

Unit 3C (Aiken/Allendale/Barnwell) 1st SGT John Bedingfield

Officers issued 11 summons and 27 warnings with 11 cases clearing court with fines totaling \$3,520.00 being assessed.

- 1st SGT Bedingfield and CPL Tyler were data master certified at SCCJA.
- Officers Allen, Manuel, Terry, Tyler, Bedingfield, Salter, Davis, Bowers and Unit D Officers assisted with a multi agency man hunt that took place in Allendale County. Over this period the fugitive attempted two carjackings, three stolen vehicles, assaulting a police officer, and attempted kidnapping. The man hunt took place over a three day period.
- SGT Davis had one dive call in Laurens County assisting the sheriff office. SGTs Davis and Allen had dive training on Lake Murray
- SGT Manuel and Allen assisted the Allendale County sheriff Office with a search and rescue on the Savannah River. An individual suffered from a heart attack and made a 911 call. The individual was later discovered at the Allendale County Hospital.
- While on routine night patrol, PFC Terry, PFC Bowers, and CPL Tyler find themselves behind a drunk driver on HWY 278. A traffic stop was made and the operator was found under the influence of alcohol, marijuana, and Xanax. The highway patrol was called and took over the case. Individual was arrested for DUI and narcotic possession.

Unit 3D (Bamberg/ Calhoun/ Orangeburg) 1st SGT Farrell Pulaski

Officers issued 14 summons and 20 warnings with 36 cases clearing court with fines totaling \$5,386.00 being assessed.

- Unit officers distributed DNR Rules and Regulations to vendors in Bamberg, Orangeburg and Calhoun Counties.
- Unit D worked joint patrol on the Congaree River with Unit B due to complaints on the sandbar up from 601 landing. Activity has gone down this late in the year. We combined our efforts by working with adjoining counties when they had the airplane scheduled. Unit D made 2 Cases for illegal shining, and one suspect was arrested for reckless driving while trying to evade officers. Without the assistance of the airplane, the suspects may have gotten away.
- Officers Yongue and Collins had two calls for stranded boaters, one on the Edisto River, and one on the Congaree River. In both cases the boaters were located and returned to the landing safely.

Unit 3E (Clarendon/Sumter) 1st SGT Gene Morris

Officers issued 7 summons and 19 warnings with 15 cases clearing court with fines totaling \$2070.00 being assessed.

- We gained two new officers for Clarendon and they started August 22. We welcome April and Jason Smith. They have been working hard since they began.

Region 4 – CPT Chisolm Frampton

Officers issued 275 summons and 969 warnings with 326 cases clearing court with fines of \$50,235.10 being assessed. Officers checked 995 hunters and 3,060 fishermen with a total of 1,769 hours being spent on boating patrols resulting in 2,781 boaters checked. Officers spent 51 hours on Homeland Security and 140 hours on litter patrols. A total of 49 hours were spent patrolling Heritage Trust Preserve properties. A total of 674 hours were spent on night patrols. Officers gave a total of 37 public presentations. Officers also spent 218 hours on JEA patrols. During the month there were 15 hunting accident investigation hours and 84 boating accident investigation hours conducted.

Captain's Spotlights

- CPL's Brown and Whaley investigated the selling of recreationally caught shrimp resulting in 3 citations and 3 warnings being issued
- While on night patrol in Hampton County 1st SGT Thomas observed a vehicle driving slowly down the road. 1st SGT Thomas followed the vehicle with his lights off and observed the vehicle shine a field. Upon turning on his headlights and blue lights, he observed 1 individual in the back of the truck with a loaded 12 gauge shotgun while the driver was

still shining the spotlight. The passenger in the front seat also had a loaded 12 gauge shotgun. The subjects admitted to trying to shoot a deer. The subjects were arrested and the vehicle and guns were seized

- PFC's Davis and Godowns documented a commercial crabber who had left all of his pots unattended in the Combahee River. The officers pulled numerous pots and were able to document over 90 violations during a month long investigation. Officers issued 6 summons and numerous warnings for Commercial Saltwater violations

Unit 4A (Horry) 1st SGT Joe Ard

Officers issued 54 summons and 260 warnings with 45 cases clearing court with fines totaling \$6,380.00 being assessed.

- CPL's Hutson, Floyd and PFC Pardue worked with the US Coast Guard and North Carolina Marine Patrol checking commercial vessels in the Little River area.
- PFC Robinson, SGT Prosser, DLEO Miller and 1st SGT Ard conducted a courtesy boat inspection at the new Peach Tree Landing.
- CPL Hutson gave a television interview with WPDE-15 on preparing your boat for a hurricane.
- PFC's Robinson, Pardue, 1st SGT Ard, along with CPL's Chanaca, Floyd, and Hutson worked the river sweep patrol on the ICW and Waccamaw River for Hurricane Irene.
- PFC Robinson, 1st SGT Ard and DHEC Officers caught several people taking shellfish illegally.
- PFC Robinson worked a commercial off load with several undersize Red Porgy.
- PFC Robinson caught 3 individuals with over 80 undersize blue crabs in the Little River area.

Unit 4B (Georgetown) 1st SGT Ryan Williams

Officers issued 41 summons and 109 warnings with 86 cases clearing court with fines totaling \$18,685.60 being assessed.

- 1st SGT Williams and SGT Pop caught the same subject this month with separate violations. The subject just came off of suspension on July 29 and a week later SGT Pop caught the subject with a freshly killed and cleaned deer. The subject was charged with possession of fresh venison out of season. 4 days later 1st SGT Williams and DLEO Ammons caught the subject with 2 undersize flounder while gigging at 0300 hrs.
- CPL Capps caught 4 subjects bush hooking in a closed body of water and no license. The subjects were not tagging their lines and it is in an area where many lines have been abandoned throughout the year.
- CPL's Capps, Kaminskas, and PFC Beacham conducted commercial crab pot patrols and cited several violations for excessive growth and obstructing navigation.
- CPL Kaminskas made a BUI case when he responded to a search and rescue. The subject was located in the ocean just off Pawley's Island and was trying to find her way back to Murrells Inlet, but was too intoxicated to do so.

Unit 4C (Charleston North/Berkeley) 1st SGT Angus MacBride

Officers issued 79 summons and 242 warnings with 96 cases clearing court with fines totaling \$15,022.00 being assessed.

- SGT's Spann, Monnet, CPL's Crawford, and Chavez answered a complaint on the opening day of deer season, where a dog hunting club of some notoriety for bad behavior, was hunting private property without permission. 9 individuals were apprehended resulting in 4 cases and 5 warnings being issued.
- CPL Duncan responded to the Mount Pleasant KOA Campground where an individual had been observed killing an alligator, before leaving the campground without paying. CPL Duncan tracked the man down in North Charleston, where he confessed to killing the gator. He was charged and posted bond on the spot, and Mt. Pleasant PD charged him with defrauding an innkeeper.
- CPL McClellan was called to assist NOAA biologist with finding a beached Sperm Whale in Bulls Bay. CPL McClellan spent 2 days ferrying biologists through the shallow and treacherous slews of the bay to document the rare occurrence, and to necropsy the animal.
- SGT Spann spent 2 hours of surveillance documenting an individual fishing for, and rendering a Striped Bass into his possession. The individual was apprehended at an out of the way landing, attempting to exit the lake undetected. He was charged with taking striped bass out of season.
- SGT Spann arrested an individual for boating under the influence on upper Lake Moultrie, after responding to an unrelated boat incident.

Unit 4D (Charleston South/Dorchester) 1st SGT Lee Ellis

Officers issued 57 summons and 215 warnings with 46 cases clearing court with fines totaling \$4,505.00 being assessed.

- SGT Kinsey investigated a hunting out of season case involving dog drivers in the Harleyville area. The investigation resulted in 1 case of hunting deer out of season.
- SGT Kinsey responded to a call referred by DCSO of a missing boater on the Ashley River. SGT Kinsey located and found the subject grossly intoxicated, the subject's vessel had drifted into some trees on the bank. The subject was arrested for Public Disorderly Conduct.
- SGT Kinsey was on litter patrol on Smoak Rd. when he caught 3 subjects littering and cited all subjects for littering.
- SGT Gantt made 1 BUI case at the Rockville Regatta.
- CPL Lind made 2 BUI cases at the Rockville Regatta.

- CPL Weaver made 2 BUI cases at the Rockville Regatta.
- SGT Richardson investigated a boating accident after a distress call was made to the USCG. The investigation revealed the subject struck a buoy in the Charleston Harbor and grounded the boat on the Ashley River near Dolphin Cove Marina in an effort to keep the boat from sinking. The subject was non-cooperative and cited for failing to keep a proper look out.
- SGT Garner and CPL Whaley located a subject with 3 undersize flounder and numerous undersized blue crabs.
- CPL Whaley and SGT Garner located a subject in possession of 2 undersize Sea trout and fishing without the use of circle hooks.
- CPL Whaley located a subject in possession of 2 five gallon buckets of undersize blue crabs resulting in 2 citations and 4 warnings being issued.
- Unit officers worked the Rockville Regatta, Fishing for Miracles King Mackerel Tournament, and a Homeland Security Escort this month.

Unit 4E (Beaufort/Colleton) 1st SGT Michael Paul Thomas

Officers issued 26 summons and 87 warnings with 37 cases clearing with fines totaling \$4,547.50 being assessed.

- CPL Henderson assisted PFC Wallace with the inspection of a commercial crabber in Jasper County. PFC Wallace had documented 32 violations and the officers wrote 6 cases to the subject.
- SGT Long and CPL Jones assisted with a manhunt on the Allendale/ Colleton Co line. The subject was caught after 3 days of tracking.
- CPL Jones spent numerous hours documenting and checking for baited Dove Fields in Colleton County.

Unit 4F (Hampton/Jasper) 1st SGT Michael Paul Thomas

Officers issued 18 summons and 56 warnings with 16 cases clearing with fines totaling \$1,095.00 being assessed.

- CPL Pope, PFC's Davis and Godowns assisted with a manhunt on the Allendale/Colleton County Line. The subject was apprehended after being on the run for 3 days.
- PFC Wallace issued 6 summons and numerous warnings to a commercial crabber in Jasper County. PFC Wallace documented 32 violations the previous week. When officers approached the subject, he had whole stone crabs and undersize crabs in his possession. PFC Wallace did an excellent job documenting and following the case through adjudication.
- PFC Davis caught a dog hunter with a doe deer on the opening day of deer season. PFC Davis has also made several shining cases during the first 2 weeks of deer season.
- CPL Pope and SGT Long made several shining cases on the 1st 2 weekends of deer from the DNR aircraft. The plane has been very effective on these night patrols. Thanks to pilots Barker and Harris.

Education – LT Billy Downer

Officers issued 4 summons and 5 warnings with 11 cases clearing court with \$1770.00 in fines assessed. A total of 112 boats were inspected and a total of 87 boating hours were accrued this month. A total of 50 presentations were given to the public.

- 1,632 students were certified in 44 Hunter Education classes; 194 students were certified in Hunter Education Internet classes; 240 CD-ROMs were mailed and a total of 164 students were certified in Hunter Education CD-ROM classes; and 49 workbooks were mailed and a total of 8 students were certified by workbook.
- 189 students were certified in 14 Boater Education classes; 196 students were certified in Boater Education Internet classes; 7 students were certified in Boater Education Video classes.
- 1,390 shooters at the Pickens Range and 715 shooters at the Spartanburg Range during the month.

Investigations - LT Gary Sullivan

Officers issued 8 summons and 33 warnings with 21 cases clearing court with \$6,340.00 in fines assessed. A total of 117 boats were inspected. A total of 177 boating hours were accrued this month. There were 27 boating incident/accident reports submitted and processed. There was 16 maintenance request received. There were 10 regulatory marker investigation requests submitted and processed. There were 25 Marine Event Permits processed; 3 dive assignments were completed.

Lieutenants Spotlight

- This month Investigators finished up the Wildlife Basic Class. Investigators dedicated much time and hard work for preparation and implementation of the classes.
- 2 boats and 1 trailer were recovered valued at \$2720.00

Special Detail/Training – LT Robert McCullough

- **OGT Activity:** \$00.00 payouts / Balance \$24,000.00
- **Property Watch Activity:** 12 signed up for program \$140.00 in sign sales
- **Media/Special Operations:** DNR LE Honor Guard assisted with Retired Captain Stills Funeral.

- **Training:** Completed the DNR Wildlife school, all twelve officers did an outstanding job.

Aviation - Pilots Bucky Harris, Owen Barker

- 31 Flights for 116.6 flight hours
- 99.9 Law Enforcement hours
- 4.8 SAR hours
- 4.5 Biology hours
- 3.0 Hurricane Surveillance hours
- 3.7 JEA hours

Homeland Security/EMD/Supply– SSGT Rick Dye

- Attended the North Santee Dam Exercise
- Worked SEOC 4 days for Hurricane Irene
- Investigated Complaint on Litter Busters Call
- Started entering issued items in SCEIS so we are moving forward with the new system

Communications - Vandy Waller

- Finished installing radios, blue lights, flashlights, 3 way outlets into 3 new vehicles to issue.
- Spent a lot of time preparing for Hurricane Irene. We did lose power to the Florence Office during Hurricane Irene but the generator started and worked perfectly.
- Attended another communications meeting for an upcoming conference in Charleston and attended a meeting at ETV to see if their microwave system could assist other state agencies.
- The Santee tower lights had to be repaired requiring the flashtubes on the tower to be replaced and the controller repaired.
- Completed the application and submitted 12 FCC license renewals.
- Met with Motorola to get assistance with a software problem in some of DNR radios.
- Working on FCC license upgrades and modifications.
- Working on tower contracts for Aynor, Pee Dee, and Hopkins. Hopkins is now completed.
- CM Waller and SGT Dukes transferred some radios and completed the TID process and delivered old radios for disposal.

OUTREACH AND SUPPORT SERVICES

EDUCATION/MAGAZINE/GRAPHICS

Aquatic Education Happenings

- Dan and Lorianne met with Tom McInnis and Chuck Pressley of Trout Unlimited to discuss changes to the Trout in the Classroom program. It was decided that teachers would have to apply for the program through an online, downloadable application. The program will only be available to schools in Anderson, Oconee, Pickens, Greenville, Lexington and Richland counties as these schools are closest to trout stream stocking areas. Lorianne created the application that will be online by September 2nd. Deadline for applicants to apply is September 19th. Awards will be announced on October 1st via email. Letters are being mailed out on September 6th to all principals in the eligible school districts.
- Lorianne continued the editing and review process for the Chapter 13 Staff Training Guide that includes fish descriptions and all about the new regulations that will probably go into effect July 2012. She also worked to update and edit the fish species descriptions for posting to the website.
- Lorianne attended the Hooked on Fishing Not on Drugs Training in Hot Springs, Arkansas that coincided with the 2011 Forrest Wood Cup and the National Guard Junior World Championship. Two students from South Carolina's Dixie High School Bass Fishing team competed in the Junior World Championship. Two students from Barnwell County Career Center's team competed in the High School Fishing World Finals, also held in Arkansas, in July. This tournament allowed students to fish as a team verses individuals. The brothers from Barnwell County Career Center came in 7th out of 101 teams!! For more information, view the two latest press releases written, visit <http://www.dnr.sc.gov/aquaticed/youthbass/news.html>. Lorianne sent the press releases out to a list of outdoor writers for more coverage. She also emailed all Ag-Ed teachers again about Bass Team recruitment.
- Dan and Lorianne coordinated and facilitated two Family Fishing Events at the Cohen Campbell Fish Hatchery on August 10th and 17th for a total of 35 people.
- Lorianne and Dan attended the Outdoor Hunting & Fishing Expo to promote, market and recruit participants for the Aquatic Education Programs August 26-28 in Anderson, SC.
- Lorianne added teaching tips and techniques to the Volunteer Handbook for the Family Fishing Events. Dan worked on adapting the Beginner's Guide to Angling with graphics.
- Lorianne attended a meeting with Chester County Assistant Superintendent, Blair Turner, and Great Falls School, Mrs. Brenda Fort, on starting and Outdoor Club at Great Falls School (6th-12th). Some of the options discussed for the Outdoor Club included: the Scholastic Clay Target program, Archery in the Schools, the Bass Fishing Teams, Envirothon, Reel Kids, Reel Art, Family Fishing Events, Junior Duck Stamp, Hunter Ed, Boater Ed, Beach Sweep/River Sweep, Monofilament Recycling Program, area Youth Hunts and projects at local state lakes Mountain Lakes and Oliphant working on fishing trails and access, wood duck boxes and more.
- Dan coordinated a fishing workshop for 6 adults from the Marion Street High Rise Apartments, Saturday August 20th at the Cohen Campbell Fish Hatchery.

Camp Wildwood

- Dan inventoried and reduced the amount of supplies stored for the wildwood program by condensing, cleaning, reorganizing and discarding what was no longer needed for the program. Most of the wildwood stuff is now setup in one of the new shipping containers behind the Styx radio room.
- Dan closed out the financial records for the program and created the end of the year program report.

Other

- Lorianne attended the Fisheries Coordinators Conference Call.
- Lorianne worked on development of the Aquatic Resources Educators Association (AREA) Awards application and scoring sheets. Participated in the AREA quarterly board meeting via conference call.
- Lorianne worked with Bill Post, the Diadromous Fish Coordinator, to develop a shad and herring flyer for the public to pick up at licensing offices to help with some of the confusion of the permits and proper licenses needed.
- Lorianne coordinated a Boater Education course for Fisheries Biologists and Technicians.
- Lorianne updated the Columbia license office brochure rack with the new Reel Kids and Reel Art brochures as well as the new freshwater fish rulers. Fish rulers were also distributed to the regional fisheries biologists in addition to the new Reel Kids and Reel Art brochures and some more fish identification posters.

SC Wildlife Magazine/Wildlife Shop

- Staff continued editing copy for the November-December 2011 issue of *South Carolina Wildlife*.
- Staff approved color for the September-October 2011 issue to be printed. This issue offers our readers the family tradition of dove hunts, the history and mission of the Walhalla Fish Hatchery, what's happening on Bulls Island now, more than 20 years later after Hurricane Hugo, the South Carolina Scholastic Clays Target program that DNR is involved in as part of our overall hunter and outdoor education programming, an overview of DNR Scenic Rivers program, covers the basics of the stream survey project, Out Scoutin' to Webb Wildlife Center, and For Wildlife Watchers piece on the red-shouldered hawk.
- Magazine photo staff continued providing photo assistance to the DNR and outside requests.
- Editorial assistant continued fulfilling magazine photo requests, including archiving digital photos, pulling photos/slides/digitals for DNR's graphics and other staff and for updating the DNR heritage preserves kiosks.
- Provided support for and included Take Me Hunting/licenses promotions in the September-October 2011 issue.
- Handled magazine requests from the public and within the DNR. Staff also assisted fulfillment personnel with promotions publications.
- Magazine photography staff provided photo coverage at the DNR's board meeting and other DNR staff.
- Life's Better Outdoors campaign ad placed in the 2008's May-June, July-August, September-October and November-December and January-February 2009, March-April 2009, May-June, July-August 2009, September-October 2009 and November-December 2009, January-February 2010, May-June 2010, July-August 2010, September-October 2010, November-December 2010, January-February 2011, March-April 2011 and May-June 2011 magazines.
- Continued archiving and backing up the magazine photo and digital files.
- Continued updating magazine issue and magazine/products material on DNR/magazine's website.
- Sales for the month totaled over \$59,572, which includes the magazine licensing mailer promotion, but also includes magazine subscriptions and Wildlife Shop sales.

Graphics

The Graphics section completed fifty nine jobs in the month of August. Most of the time spent was on completing the Migratory Bird Hunting Guide and Regulations. This publication has combined several publications which will save the agency several thousand dollars. Other items of note were Apprentice License Survey materials, Alligator Warning Signs and Governor Cup Billfishing Tournament materials. The agency spent approximately \$90,000.00 on printing and publications this month. This cost is not all state funding but includes grants, nonprofit charitable donations and federal monies as well.

TECHNOLOGY

Data Base Management. Continued to evaluate problems with customer identification numbers and the impact to various licensing and titling programs. Initiated design of customer identification quality control program to resolve duplicate identification. Continued to support the geologic carbon sequestration and geothermal data management projects. Provided continuing support to South Carolina Interactive, agent POS vendor for the DNR licensing program and the Hunter-Boater Education systems. Resolved issues with credit card payments for alligator draw hunt system. Continue to revise data schema for integration of internal licensing, POS and Internet systems licensing and titling systems to address customer identification number and other issues as the software design reaches its final phase. Continued system design of internal financial records management system to interface with SCEIS including the telephone and auxiliary credit card billing systems. Performed weekly maintenance and updates to various database and applications programs using the DNR's development framework protocols.

Continued work with the boat titling program and the SCI, POS vendor, to implement and enhance the ImageNow electronic document management system for document and records management. Continued the design of a document management solution for boating and hunting incident/accident reports for the Law Enforcement Division. Initiated development of a DNR photographic document reference library and continued EDMS project with the Engineering office to integrate facilities management records into the system. Completed document management system integration into the DNR Managed Lands system and completed end-user training for regional managers and staff. Continued document scanning and indexing for WMA and Heritage Preserve properties, law enforcement violations/ summons billing and aviation log applications. Completed scanning of various agency property files. Added 18,441 records and 34,380 images to the EDMS document library. Provided records management and permanent archival support to the agency using record export and archive process. Developed fillable Adobe forms for Law Enforcement Use Force, Affidavit of Evidence Destruction and Off-Duty Employment.

Suspended major project to standardize all DNR GIS data to SC State Plane coordinate system and to establish web services for enhanced sharing of DNR data with other agencies due to changes in project priority and staff shortages. Continued project to generate Digital Elevation Models (DEMs) and 2-foot contours from county LiDAR data. Provided

routine maintenance for Managed Lands and WMA data and applications. Continued processing of LiDAR data for nine counties captured during the 2010 flight and four counties captured during the 2011 flight. Completed second QA/QC review of LiDAR data deliveries for Allendale, Bamberg, Hampton and Lee counties. These data have been shipped to USGS for final review and acceptance. Completed support for the shoreline delineation project with the Geological Survey. Provided GIS database and GPS support to the various agency programs including testing of the smaller format Trimble Juno GPS units.

Systems and Network Management. Worked with staff on construction specifications at Santee Coastal to enhance data communications. Resolved issues with DNR mainframe, servers and disk storage resulting from UPS failure following a power outage to the Capitol Complex. Installed latest web monitoring and filtering software. Installed a web server for a demonstration of the SEAMAP data query system at a regional workshop. Recovered email rights after being blacklisted by two different reporting companies as a SPAM source. Added latest security patches and operating system revision upgrades to agency servers. Created automated process to evaluate disk defragmentation needs of servers. Resolved issues with Mail Order Manager software following power failure. Added 13 backup clients in Columbia, Clemson and Charleston. Continued deployment of new VirusScan upgrades with new antivirus signatures. Resolved several network, email and communications issues. Provided data recovery support to the agency including recovery of deleted files and directories for 4 users. Monitored network, email and server security issues. Continued support to county auditors for mainframe access to DNR boating records. Processed mainframe daily transaction requests. Performed routine mainframe and server system maintenance functions. Researched and developed IT procurement requisitions and provided specification, installation and configuration support for DNR staff. Help Desk staff answered 210 trouble tickets.

GIS Applications and Web Development. Provided GIS and cartographic support to DNR staff. Suspended development of Internet Map Server application for species-based data storage and access because of project priorities. Provided user support for ArcMap and GPS to DNR staff. Posted Executive Office and Deputy Director biographies and updated public dove field listing to the web. Provided web site support for the Managed Lands, waterfowl species, Conservation Districts, Beach Sweep/River Sweep, Palmetto Sportsman's Classic and SC Wildlife Magazine programs. Provided routine maintenance of DNR web site including news releases, publications, Board minutes and other agency web pages. Provided routine maintenance of DNR Intranet site. Created 15 new web pages and updated or modified 125 existing program web pages. Continued enhancement and maintenance of DNR managed lands and reservoir web applications. The DNR web site 216,553 visitors with the agency calendar, rules and regulations and the trout book as the most viewed pages. The GIS Data Clearinghouse had 13,075 map files downloaded with LiDAR data (terrains and intensity images), Digital Orthophoto Quarter Quadrangles, Digital Raster Graphics, geology and soils as the most commonly downloaded data.

Administrative. Tim De Troye continued to work with various state agencies and local governments to increase statewide participation in the GIS Coordination Council. Jim Scurry attended the Information Technology Solutions Committee (ITSC) meeting at the Division of State Information Technology. The Program Manager continued to develop a five-year strategic plan to direct technology development in the agency through 2015. Interviews were completed for two vacant technology positions and the hiring paperwork is in process. Three additional positions have been approved and position descriptions have been developed for programming staff to assist in the development and maintenance of critical agency programs.

ENGINEERING

Priority	County	Project Name
2 - Under Contract	Charleston	Santee Coastal Blake House
	Horry	Red Bluff Landing Courtesy Dock
	Kershaw	Hwy. 1 Landing - Lugoff (Phase II)
	Richland	Bates Bridge Landing Ramp Relocation
3 - Permitting & Design	Aiken	Riverview Park Transient Courtesy Dock Addition
	Allendale	Highway 301 Fishing Access
	Bamberg	Bob Cat Landing Bank Stabilization
	Charleston	County Farm Courtesy Dock Rehab
	Colleton	Mars Oldfield Boat Landing
	Colleton	National Estuarine Research Reserve Bank Stabilization
	Dorchester	Bacons Bridge Boat Ramp
	Horry	Hwy 22 and 17 Boating Facility
	Horry	Rosewood (Socastee) Ramp Repair
	Jasper	Knowles Island Fishing Pier
	Jasper	Tuten Landing Resurfacing
	Kershaw	Habitat Enhancement
	Laurens	Belfast Archery Range
	Laurens	Belfast Restroom Rehabilitation
	Laurens	Boyd's Mill Pond Boating Access
	Marion	Shotgun Range at Marsh
	Marion	Woodberry Rifle Range
	Pickens	Pickens Range Archery Range & Tower
	Richland	Geology Building Expansion
	Spartanburg	James Thomason Range
4 - Pending Projects	York	SC Hwy 211 Boating Access
	Anderson	Piedmont Access
	Berkeley	Wando River Access
	Charleston	Steamboat Landing Fishing Pier
	Florence	Jefferies Creek Canoe Access
	Georgetown	Rocky Point Landing
	Horry	Savannah Bluff Ramp Repair
	Laurens	Laurens City Park Archery Range
	Laurens	Reedy River Carry Down Access
	Richland	Columbia Canal Fishing Access
	Saluda	Chapells Boating Access
	Williamburg	Ferry Lake Boating Access
5 - New Project Requests	Marion	Hwy 301 Ramp Relocation

PROCUREMENT

Purchase Order Transactions

Purchases, Quotes, Bids	149	\$1,649,015.72
Blanket Orders	3	\$ 8,153.00
Exempt	5	\$ 340,124.78
Sole Source Procurement	5	\$ 55,554.81
Emergency Procurement	0	\$ 0.00
Grant Exemptions	0	\$ 0.00
Total Purchase Orders	162	\$2,052,848.31
FPRs	82	\$ 31,318.33
Check Request	132	\$ 486,591.61
Minority Vendors	2	\$ 961.43
Procurement Card	1	\$ 339,305.42

RFQ/Bid Awards

Term

<u>Division</u>	<u>Commodity/Service</u>	<u>Requestor</u>	<u>Requisition #</u>	<u>Contracts</u>	<u>Award Amount</u>
W&FWF	Herbicide	Brett Moule	5400003331	No	\$ 28,840.00
W&FWF	Arch. Survey	Dean Harrigal	5400003243	No	\$ 39,766.00
W&FWF	Sheet Metal	Jamie Rader	5400003292	No	\$ 15,730.00
Marine	Helicopter Services	Kristin Schulte	5400003270	Yes	\$ 36,212.50
LE	Aluminum Boat	Tim Baxley	5400003335	No	\$ 38,300.00
LE	Video System	John Lewis	5400003297	No	\$ 14,594.00
LE	Boat & Trailer	Mark Carey	5400003334	No	\$ 12,450.00

BOATING/LICENSING

Boating Operations August 2011				
Basic Business Report				
	MTD	Monthly Revenue	(previous ytd)	YTD
Watercraft - New Titles	1,235	\$15,363.40	\$45,370.00	\$60,733.40
Outboard Motor - New Titles	728	\$7,236.32	\$20,480.00	\$27,716.32
Watercraft - Transfers	2,745	\$15,783.75	\$35,046.00	\$50,829.75
Outboard Motor - Transfers	1,901	\$19,010.00	\$40,640.00	\$59,650.00
Internet Registration Renewals	1,368	\$13,680.00	\$25,400.00	\$39,080.00
DNR Office Renewals	7,514	\$75,140.00	\$54,490.00	\$129,630.00
Mail Renewals	4,043	\$40,430.00	\$98,850.00	\$139,280.00
Law Enforcement Boating Dollars (Drew's Law)		\$212,049.00	\$516,822.00	\$728,871.00
Active Watercraft Registrations				363,621
Inactive Watercraft Registrations (including dropped records)				284,813
Total number of Watercraft				367,092
Permitted Marine Dealers				
Jan. 1, 07 - Dec. 31, 07				318
Jan. 1, 08 - Dec. 31, 08				363
Jan. 1, 09 - Dec. 31, 09				310
	Dec.			
Jan. 1, 10 -	31, 10			286
Jan. 1, 11				276
M.T.I. Cases				
Since July 1 , 2008				
Stolen/Recovered Case files created	12			183

Licensing Operations August 2011

Basic Business Report

	MTD Quantity	MTD Revenue	Last Year MTD Quantity	Last Year MTD Revenue
Resident Hunting Licenses	35,106	\$ 91,584.00	34,056	\$ 82,332.50
Non-Res. Hunting Licenses	6,713	\$ 699,046.00	7,272	\$ 757,334.00
Total	41,819	\$ 790,630.00	41,328	\$ 839,666.50
Resident Fishing Licenses	36,148	\$ 312,709.00	38,170	\$ 331,314.00
Non-Res. Fishing Licenses	13,818	\$ 216,132.00	15,185	\$ 234,698.00
Total	49,966	\$ 528,841.00	53,355	\$ 566,012.00
Combo. Licenses	23,390	\$ 742,587.00	23,059	\$ 739,492.00
3 Yr. Resident Hunt	110	\$ 2,769	108	\$ 3,033.00
3 Yr Resident Fishing	719	\$ 19,413.00	937	\$ 25,299.00
3 Yr Non-Res Fishing	48	\$ 4,896.00	35	\$ 3,570.00
Lifetime Licenses	1,455	\$ 38,149.00	1,175	\$ 28,703.00
L/T Disability Licenses	13	\$ -	13	\$ -
3YearDisability	466	\$ -	381	\$ -

Turkey Tags	2,050	\$ 0.00	Opens 03-15-12
Antlerless Deer Tags	38,567	\$ 192,835.00	Opens 08-15-11
Shrimp Baiting	1,386	\$ 34,650.00	Opens 09-09-11

License Agents Numbers and Sales (Month To Date)

LicenseAgents Quantity	Manual	Point of Sale	Internet & Call Center	SCDNR Offices	Totals
	0	507	1	4	512
Total License		84,045	26,079	6,222	116,346
Total Revenue	\$ 0.00	\$1,172,659.50	\$ 755,815.00	\$157,436.00	\$2,085,910.50
% sales to agent type	0.00 %	56.22%	36.2%	7.50%	

NEW POS
AGENTS 0

Commercial License Operations August 2011
Basic Business Report

License Type	Licenses Sold MTD	Licenses Sold Last Month	MTD	\$ YTD	\$ YTD Last Month	\$ MTD
Commercial Saltwater Res	619	620	1	\$61,972.50	\$29,441.25	\$17,131.25
Commercial Saltwater Non	64	54	10	\$87,645.00	\$52,800.00	\$18,855.00
Commercial Saltwater Total	755	674	11	\$149,617.50	\$82,241.25	\$35,986.25
Trawl Res	243	216	27	\$92,756.25	\$35,875.00	\$30,081.25
Trawl Non	40	36	4	\$32,460.00	\$39,000.00	\$11,805.00
Trawl Total	283	252	31	\$125,216.25	\$74,875.00	\$41,886.25
Crabs Res	267	253	14	\$57,380.25	\$21,485.25	\$18,118.75
Crabs Non	9	8	1	\$10,693.75	\$4,625.00	\$3,331.25
Crabs Total	276	261	15	\$68,074.25	\$26,110.25	\$21,450.00
Shellfish Res	30	27	3	\$22,038.75	\$17,775.00	\$2,242.50
Wholesale Res	214	202	12	\$68,710.00	\$27,285.00	\$21,300.00
Wholesale Non	2	2	0	\$8,500.00	\$6,500.00	\$1,000.00
Wholesale Total	216	204	12	\$77,210.00	\$33,785.00	\$22,300.00
All Commercial Types Res	1928	1749	179	\$358,207.50	\$158,715.00	\$104,242.75
All Commercial Types Non	127	109	18	\$171,537.00	\$107,000.00	\$36,315.00
All Commercial Types Total	2055	1858	197	<u>\$529,744.50</u>	<u>\$265,715.00</u>	\$104,557.75
Totals	2055	1858		<u>\$529,744.50</u>		

WATER RECREATIONAL AND GAME & FISH FUNDS				
BALANCES OF AVAILABLE CASH AS OF AUGUST 31, 2011				
REG 1 HUB Balances	WREC	G&F	FY12 Lic Rev	FY12 Fine Rev
Abbeville	76,153.26	25,106.92	544.00	50.60
Anderson	392.41	125,931.73	4,063.00	301.20
Cherokee	186,456.50	141,430.94	2,907.00	
Edgefield	30,389.36	28,360.16	187.00	53.02
Greenville	47,650.21	85,540.90	2,975.00	122.90
Greenwood	75,833.19	36,412.68	1,887.00	363.88
Laurens	91,546.61	38,508.47	1,445.00	1,619.34
McCormick	46.18	20,334.45	816.00	130.13
Oconee	410,609.79	296,521.78	7,616.00	331.18
Pickens	32,780.49	66,355.74	2,703.00	441.66
Spartanburg	15,913.88	131,671.81	4,709.00	931.59
Union	94,090.95	30,588.99	442.00	144.60
REG 1 Total	1,061,862.83	1,026,764.57	30,294.00	4,490.10
REG 2 HUB Balances	WREC	G&F	FY12 Lic Rev	FY12 Fine Rev
Chester	156,405.32	31,514.90	408.00	
Chesterfield	45,935.22	38,146.60	595.00	214.46
Darlington	183,467.25	37,537.26	391.00	
Dillon	166,305.42	42,413.15	1,020.00	
Fairfield	51,234.68	130,335.27	1,972.00	274.70
Florence	376,910.50	45,306.47	544.00	180.22
Kershaw	216,988.78	64,320.78	816.00	328.19
Lancaster	248,572.65	109,982.05	3,553.00	1,051.36
Lee	68,155.14	9,673.78	0.00	58.27
Marion	110,704.41	23,615.46	51.00	18.97
Marlboro	90,282.66	22,726.07	408.00	
Williamsburg	108,119.18	25,905.64	51.00	
York	191,624.71	144,231.48	12,954.00	110.83
REG 2 Total	2,014,705.92	725,708.91	22,763.00	2,237.00
REG 3 HUB Balances	WREC	G&F	FY12 Lic Rev	FY12 Fine Rev
Aiken	197,622.76	50,009.51	1,394.00	28.92
Allendale	24,663.25	21,654.31	17.00	396.38
Bamberg	66,695.81	13,802.47	17.00	91.58
Barnwell	81,701.10	32,564.97	34.00	
Calhoun	64,740.43	31,885.87	255.00	
Clarendon	58,140.73	37,976.35	2,312.00	462.65
Lexington	593,157.01	101,561.57	3,927.00	235.66
Newberry	91,681.78	67,446.86	1,258.00	83.48
Orangeburg	154,096.96	97,932.81	1,887.00	648.17
Richland	283,562.16	89,728.86	5,372.00	125.30
Saluda	106,657.18	49,890.14	901.00	26.51
Sumter	129,836.48	23,742.91	595.00	327.71
REG 3 Total	1,852,555.65	618,196.63	17,969.00	2,426.36
REG 4 HUB Balances	WREC	G&F	FY12 Lic Rev	FY12 Fine Rev
Beaufort	85,259.54	81,445.09	323.00	1,929.99
Berkeley	366,616.69	150,371.74	4,352.00	932.52
Charleston	460,845.94	88,582.43	741.00	1,925.59
Colleton	84,400.50	48,753.32	238.00	79.53
Dorchester	247,394.52	28,097.58	425.00	202.40
Georgetown	667.05	50,259.40	697.00	347.16
Hampton	84,791.93	53,834.22	238.00	597.03
Horry	195,451.27	60,126.98	4,539.00	1,390.48
Jasper	55,673.38	66,985.25	782.00	1,035.27
REG 4 Total	1,581,100.82	628,456.01	12,335.00	8,439.97
GRAND TOTAL	6,510,225.22	2,999,126.12	83,361.00	17,593.43

LAND, WATER & CONSERVATION

OFFICE OF DEPUTY DIRECTOR

Ken Rentiers held LWC Section Chief/Staff meeting (8/1). Ken attended the Environmental Banc & Exchange meeting re: Vaught tract @ Lewis Ocean Bay and the Governor's Savannah River Committee meeting (8/2). Met with Duke Power & Santee Cooper staff re: State Water Plan (8/3). Ken attended the HTAB meeting (8/4). Met with S.C. Chamber of Commerce re: State Water Plan (8/5). Silver Jackets Technical Committee meeting (8/8). Deputy Directors meeting (8/9). Ken met with Senator Graham's staff (8/10) and HR Director re: Division reorganization (8/11). He attended DNR Board meeting (8/18). Ken met with GA EPD, TNC & DHEC re: COE COMP 2 Study (8/19) and met with Savannah District COE re: COMP 2 Study (8/23). Attended the Interstate Council on Water Policy meeting (8/25). Ken attended the Hydrology staff meeting and the Savannah River Basin Advisory Council meeting (8/31).

HABITAT PROTECTION AND ENVIRONMENTAL CONSERVATION SECTION

River Conservation

Ashley Scenic River:

Staff updated advisory council list in preparation for Dorchester County invitations to upcoming dedication of public park at Bacons Bridge on Ashley River.

Catawba Scenic River Project:

Staff conducted a teleconference with the advisory council on August 15 to continue developing the Catawba Scenic River management plan and to discuss a proposed of a water supply impoundment on a tributary adjacent to the river in Lancaster County.

Edisto River Basin Project:

Staff participated in Friends of the Edisto (FRED) board teleconference on August 15 to address development of the FRED river conservation organization.

Lower Saluda Scenic River Project:

Staff communicated with advisory council regarding new ownership and proposed facility upgrades at the Alpine wastewater treatment plant that discharges to lower Saluda.

Pee Dee Scenic River Project (Great Pee Dee/lower Little Pee Dee):

Staff continued writing sections of the Pee Dee Scenic River management plan.

Beach Sweep / River Sweep:

Staff distributed an email call for volunteers to participate in the Sweep, continued to address public inquiries about the Sweep, processed site-captain registrations, updated the website, produced a press release, and began distribution of supplies to site captains.

FERC Hydro Projects:

- Buzzard Roost Hydro Project (P-1267) – Staff responded to notice of drought contingency operations at the project, which will affect downstream minimum flows to the Saluda River.
- Keowee-Toxaway (KT) Hydro Project (P-2503) – Relicensing process continues: Staff participated in a KT Stakeholder Team meeting (on Aug 4) and began review of Duke's Proposed Study Plan.
- Riverdale Hydro Project (P-13590) – Relicensing process continues. Staff submitted (on Aug 17) additional written comments to address Lockhart Power's responses to FERC's Additional Information Request regarding Lockhart's License Application for Riverdale hydro project.
- Neal Shoals Hydro Project (P-2315) – Staff responded to a request from SCE&G to allow drawdown of the impoundment at Neal Shoal to enable repairs of sand gates in safer conditions than their original proposal which was to conduct repairs under water.
- Saluda Hydro Project (P-516) – Staff participated in Striped Bass Flow Adaptive Management Team meeting (Aug 24) to continue developing an annual report template. Staff joined SCE&G staff on Lake Murray site visit (Aug 25) to see dead/dying shoreline vegetation resulting from high lake-level conditions.
- Pacolet Hydroelectric Project (P-2621) – FERC ordered (Jul 20) a new license to be issued for the Pacolet Project. Staff reviewed the new license order and subsequent comments and corrections submitted to FERC by Lockhart Power on Aug 19.

- Broad River Fisheries Mitigation Trust Fund – Staff addressed a new project proposal that would assess dam removal opportunities in the Broad River Basin and staff scheduled a meeting for Sep 12 with the Basin Trustees to further consider the proposed project in concept.

Other Activity of Rivers-Program Staff:

- River Management Society -- Staff participated in a RMS National Board conference call on Aug 4. Staff continued planning and participating in committee teleconference calls to organize the April 2012 RMS symposium to be held in Asheville.
- EPMS – Staff completed EPMS evaluation process for 2010-11.
- LWCD-DLEO – Staff supported DNR-LE in response preparations for Hurricane Irene.

Heritage Trust

Data Management:

Two requests for verification of known occurrences in the vicinity of project sites were received and answered from Tower Engineering Professionals for communication towers in Barnwell and Kershaw counties.

Four requests for GIS location data of rare, threatened, and endangered species were received and processed:

- Integrated Environmental Solutions, LLC for threatened and endangered species data set for six counties in the southern portion of the state for use in an environmental assessment;
- International Paper for use in FSC Forest Management certification of five privately owned parcels in Bamberg, Berkeley, and Williamsburg counties;
- Biological Integrity, LLC for use in forest certification of client properties in Bamberg, Colleton, Dorchester, Lexington, and Orangeburg counties; and
- Ecological Services and Consulting for data on 5 plant species in Chester, Fairfield, Kershaw, and Lancaster counties for possible visitation in order to facilitate other searches for the plants.

Ten new records and six confirmations that had been added to the Mapper portion of Biotics previously were completed by entering the text into the Tracker portion of Biotics. The hardcopies of all the completed records were filed alphabetically by quad.

In addition to the documentation binders of HTAB approved project sites kept by the data manager; two additional sets of binders were located during the move to the third floor. The three sets of binders are being reviewed and compared to remove duplication and consolidate them into one set of binders. The documentation will also be scanned, so it will be available electronically and be less prone to physical damage. Also, data were added into the “State Interpreted USESA” field to improve the accuracy of the federal listing information that is provided to consultants and the public.

The review of all element occurrences continues to ensure that data is formatted and located correctly for conversion to the new system, as well as the review and updating of state legal status and tracking status of all animal species as time permits.

Heritage Survey:

Five specimens were processed for August 2011 for specimens collected during the Heritage Preserve Inventory Project. Lists are maintained with specimens and collection numbers for quick reference.

Heritage staff served in an advisory capacity to develop a ‘crosswalk’ table that matches existing Habitat Classes developed for the Conservation Wildlife Conservation Strategy with equivalent GAP categories based on a 27 Class system developed by SCDNR.

Heritage staff is collaborating with the herbarium curators of USC and Clemson in a collaborative grant proposal sponsored by the National Science Foundation for funding through the Collections in Support of Biological Research (CSBR) program. The Heritage Program staff participation insures that a strong data sharing agreement with Natural Heritage Programs in the Southeast and others such as NatureServe is included.

In cooperation with US Fish and Wildlife Service and the Georgia Heritage Program surveys were conducted at the two known sites for the federally protected species, Canby’s Dropwort (*Oxypolis canbyi*), on agency property. These included Crosby Oxypolis (Colleton County) and Lee County Longleaf Heritage Preserves; they were also sampled for tissue to be used in genetic studies to be conducted at the University of Georgia. Based on the soils, geomorphology, legacy USDA aerial photos and more recent NAPP images, remnant vegetation patterns and flora still extant on both sides of SC 63,

staff determined that the Crosby Oxypolis Preserve is a very altered pond cypress savanna that once occupied the top one-half or so of a Carolina bay. Apparently SC 63 cut through the top of the bay with remnant savanna vegetation easily observable lying NE of SC 63 and once extended to what appears to be an old roadbed near a church cemetery. See false color near-infrared National Aerial Photography Program (NAPP) image below. The preserve was not clear-cut in the modern sense of the word but was a very open, pond cypress savanna and will need active management to restore both the bay- like vegetation and the species of interest to include pitcher plants, sundews, and the Canby's Dropwort indigenous to low areas in and around the bay. A rich and abundant flora of carnivorous plants is typical of other less-disturbed bays in the state. With proper management of the preserve these unique species should grow and thrive. Over 400 stems of Canby's Dropwort were counted in the Lee County Longleaf Heritage Preserve. Additional surveys documented good habitat present in other parts of the property, but no new populations were observed.

Aquatic Nuisance Species Program

Technical

SC invasive species management surveys were conducted on Back River Reservoir, Cooper River, Goose Creek Reservoir, Waccamaw River, Black Mingo Creek, and Bonneau Ferry WMA. Other surveys included a tidal creek problem in Summerville and Island apple snail surveys in Socastee and Mount Pleasant.

Staff met with Santee Cooper staff and Freshwater Fisheries staff to discuss and survey habitat enhancement areas on the Santee Cooper Lakes. Several sites were viewed with significant amounts of native vegetation expanding in planting sites on Lake Marion and Lake Moultrie.

Control operations were conducted on 129 acres at a total cost of \$14,425. That includes invasive Island apple snail control measures, 20 acres, in and around Socastee, SC. Other sites include 44 acres of water hyacinth on the Back River Reservoir, 42 acres of water hyacinth in Goose Creek Reservoir; 16 acres of phragmites control in Santee Coastal Reserve, Santee Delta, and Caw Caw Park, 5.5 acres in Aiken and Poinsett State Park and 1.5 acres in Black Mingo Creek.

Staff met with SCDNR Wildlife Biologist to schedule invasive species and habitat enhancement treatments on and around the Santee Coastal Reserve, Donnelly WMA, Yawkey WMA, and Bonneau.

Staff provided oversight and supervision to the US Fish and Wildlife Service for invasive species helicopter control projects on the Savannah Wildlife Refuge and the ACE Basin.

Staff assisted SCDNR Wildlife biologists with the dove banding project

Outreach

Work has continued with Amanda Stroud to coordinate a public service announcement campaign with the Freshwater Fisheries Section to provide PSA's, billboards and literature for an ad campaign highlighting aquatic invasive species prevention in SC.

Staff participated in and gave presentations at the South Carolina Aquatic Plant Management Society Annual Meeting in Clemson, SC and the SC Exotic Plant Pest Council Board Meeting.

Training

Staff received recertification credits for Category 5 licenses by attending the South Carolina Aquatic Plant Management Society Annual Meeting.

Other

Yearly EPMS were completed for staff and supervisors along with annual accountability reports and program significant accomplishments for the executive summary.

Staff responded to numerous phone calls and emails regarding aquatic weed and snail problems in public waters.

Equipment purchases, boat repairs, and vehicle maintenance were performed in preparation for continued control work in the coming weeks.

CONSERVATION DISTRICTS

Statewide Projects

Conservation Districts Program staff coordinated and participated in the **Annual Conservation Districts Commissioner Leadership Workshop** for commissioners, district employees and agency staff in cooperation with the SC Association of Conservation Districts.

Technical

Jonathan Williams assisted landowners with conservation practices in **Orangeburg, Bamberg, Barnwell and Allendale Districts**.

Outreach

Staff participated in the Southeast Region meeting of the National Association of Conservation Districts, along with several district commissioners from South Carolina. Staff participated in a meeting of the SC Natural Resources Committee chaired by USDA-NRCS. Staff attended conservation district board meetings in **Darlington and Lexington Districts** and participated in a meeting on the 2012 Farm Bill in the **Dillon District**.

Conservation Districts

Three **Dillon District** Commissioners attended the 2011 Leadership Workshop.

Greenville District hired a new Community Relations Coordinator, Caryn Key, to assist in meeting the County's NPDES MS4 permit education requirements. Caryn will help gather data on demographics for our comprehensive education plans for specific pollutants, and will be instrumental in the outreach and education outlined in those plans. The District also entered into a partnership with Roper Mountain Science Center, which is a part of the Greenville County School District, to provide regular environmental education workshops for teachers. The District is participating in community focus groups centered on water quality concerns, and continues to meet with citizens who ask for advice on stream bank erosion and flooding issues.

Jasper District sponsored a DNR Hunter Education class at the Blue Heron Nature Center. DNR Sergeant Denetta Dawson conducted the class for 25 participants.

Lancaster District Commissioner Bill Ardrey and Amanda Roberts attended the SCACD Leadership Meeting. Amanda Roberts gave the DNR Hunter Education test to 4 people and attended the Southeast NACD meeting... The District is promoting all their conservation contests with the schools in Lancaster County.

Lee District held a meeting with the Agribusiness Banquet Committee, working on ticket preparation, programs and logistics. Staff is working on the Pee Dee Area meeting to be held in October. The District is working on Arbor Day Project with NRCS staff.

Lexington District is working on their Lexington County Green Business Certification. District staff put together a flyer on the Lexington District Educational programs for county schools and met with the district coordinator of Lexington One schools. Commissioner Larry Nates received the award as inductee to the Southeast NACD Hall of Fame from SCACD President Sterling Sadler. The district has completed their Long Range Plans and is working on improving their Standard Operating Procedures.

Oconee District prepared for the closing of its fifteenth conservation easement which would bring the total acres protected by the district to 1,506 acres. Kathryn Landreth, one of the students who attended the Conservation Districts Workshop, is now volunteering in the district office two days a week. The District will be the coordinator of the Conservation Corner of the Carolina Foothills Heritage Fair in October where conservation groups will conduct programs for elementary school groups. Oconee Commissioner Lee Keese attended the Southeast NACD meeting and presented the video "The Tokeena-Crossroads Project", the story of the protection of a block of family farms in Oconee County. Plans are being made for the 6th annual Celebration of Agriculture Banquet that honors the area farmers and agriculture producers.

Orangeburg District hosted Project Reform-based Environmental Science's third year reunion with 30 participants attending. Project Learning Tree Energy & Society Training was featured for the group from Calhoun, Florence and Orangeburg Counties.

Richland District presented conservation education programs for 183 children and 85 adults through the Conservation Station at the Clemson University Sandhill Research and Education Center. The District also provided administrative support and technical expertise to the second and third Nature-Based Inquiry 2011 Summer Institute, a University of South Carolina project designed to empower preK-5 educators to establish and use outdoor classrooms to enhance student learning. District staff hosted two tables and an activity station at Richland 101 for Kids, an annual one-day event designed to teach children about local government. Approximately 2,000 children attended this event. The District also sponsored a water quality activity station at the 2nd Annual Summer Celebration of Water, a Columbia riverfront festival that attracted over 900 midlands residents. With input from the Richland County Farm-City Committee, the District

developed 2011 Richland County Farm-City Week competition announcements and distributed them to Richland County schools. District staff performed one school garden consultation and presented conservation education programs for 74 children and 22 adults through the Conservation Station at the Clemson University Sandhill Research and Education Center.

Williamsburg District donated funds for a Garden Project at Williamsburg Academy. Fourth grade teacher, Kathy McCullough, will help the students to plant and maintain the vegetable garden, incorporating it into their lesson plans. It should affect approximately 150 students this year.

York District chaired "1000 Rain Gardens for York County" steering committee and began to plan workshop at Sugar Creek Garden Center. The District submitted a full page full color advertisement for the Fall Livestock Show program; prepared and distributed school newsletter describing programs and contests of the District; began receiving responses from teachers and scheduled 26 presentations and enrolled 6 classrooms in poster contest. The District also signed up to be a mentor for Green Steps Schools in York County. District staff worked with Fishing Creek Watershed Board to complete dam repairs from beaver damage. The District sold 3990 square feet of filter fabric for producers heavy use areas.

EARTH SCIENCE GROUP

South Carolina Geological Survey

Geological Information

General: A M5.8 earthquake occurred in Mineral, Virginia August 23rd, and an aftershock occurred on August 24th. Shaking was felt all along east coast from Maine to Georgia. Different buildings were evacuated in the Columbia area because the size and location of the earthquake initially was not known. Staff answered phone calls and emails all afternoon of the 23rd. Following the event, numerous emails between different State Geologists discussed for earthquake awareness and for possible hazards related to construction on materials prone to liquefaction. Repairs were made to 2 boat trailers and 2 boats.

Outsource Mapping: Mapping continues to identify both ductile and brittle faults in the Caesar's Head Park area (Cleveland quadrangle, Greenville County, Region 1).

STATEMAP: 38 holes (45 foot aver.) were drilling in Georgetown South quadrangle (Georgetown County, Region 4) to complete quadrangle drilling on this phase of the project. Presently, drill information is being drafted on the three coastal maps. Drilling also was done along Windom Road in the Lambert (aka: Lambert-town, Georgetown County, Region 4) to identify eastward extensions of the Oceda fault; 13 holes were drilled to an average depth of 37 ft. Prior drilling also was reviewed to locate the fault. The annual STATEMAP Advisory Committee meeting also was organized, and letters were sent to committee members announcing the meeting September 8th.

Estuarine Shoreline Change: Final report was submitted to OCRM.

EMD Hazards Map: The Union County earthquake manuscript was reviewed, and revisions are nearly complete.

CO2: Seismic images SCCO2-1 and SCCO2-3, which were recently converted to depth from two-way travel time, were analyzed and interpreted. Interpretations were discussed numerous times with project co-workers at ESRI. The interpretations also were reviewed by Dr. Martin Chapman, Virginia Tech, at a meeting held in the USC-ESRI offices August 18th. Dr. Chapman's comments were most favorable. To support interpretations of reactivation, a literature search also was done on development of compressive stress fields during opening of the Central Atlantic Ocean.

Broad River Project: A climate data search was begun for the Carolinas. This search will be a large effort, but it is necessary to run models for water and sediment flux estimation. WinRiver II was downloaded and installed for ADCP data processing. Work continued on obtaining elevation and land cover data for the Broad River watershed.

Digital Products

General: Steven Workman was hired to help with digitization of maps. Drill-hole sites for indexing were located for Document Management System. Summary of web statistics continues to indicate viewing and file downloading up nearly 20% over 2010; 326 downloads of map layers (98) and education material (228). A compilation map of Southwest Columbia and Fort Jackson South was prepared. Two maps printed upon request.

STATEMAP: Drafts of the Savannah River basin maps (Hampton County, Region 4) were digitized and placed in layout. Updates were made to National Geologic Map Data Base August 23 in compliance with STATEMAP Program requirements; 9 maps added.

Data Preservation: Drill-hole logs, reports, and site maps continue to be scanned into the Document Management Workflow. 1707 drill logs have been scanned; 1089 located geographically, and 281 QA/QC'ed.

CO2: Meetings were held with the Hydrology Section and IT to discuss a well-data entry format. Table structures and definitions for the final Oracle database continue to be defined. CO2 projects and database needs also were discussed with USC-ESRI.

Estuarine Shoreline Change: Simulations using the AMBUR and DSAS programs assessed a segment of May River (Bluffton quadrangle, Beaufort County, Region 4). Historical information for the May River also was compiled in EXCEL. Results were included in final package for OCRM. A topology of contemporary estuarine features was

developed and validated. Final lines for OCRM shoreline project were QA/QC'ed for location and attribute accuracy.

EMD Hazards Map: Final revisions are being made.

Outreach

General: Food donations were made to Harvest Hope. Meetings were held with Coal Emissions Reduction Technologies on Aug 16th to discuss rare earth elements in South Carolina, namely monazite. A bibliography was prepared to help the company. General information was provided to 43 customers. Information was provided on the following county in *Region 2: Dillon*.

Hydrology Section

Water Planning: The Hydrology staff continued to develop a preliminary update of the South Carolina Water Plan, including new material relating to water-use forecasting and to use of hydrologic models in water planning. Staff also continued to review plans and legislation adopted by other states. Joe Gellici met with Dr. Jeff Allen, Clemson University, to seek his involvement in an advisory steering committee being formed to help guide development of the new Water Plan.

Savannah River Basin: Staff participated in a conference call with DHEC, Georgia EPD, and the Nature Conservancy to resolve funding issues related to the Corps of Engineers' efforts to move forward with Phase 2 of the Savannah River Basin Comprehensive Study, which would examine potential modifications to the Corps' existing drought response policy. Scott Harder and Andrew Wachob attended a webinar training class to review the Corps of Engineers' new HEC-RPT Regime Prescription Tool modeling software, which will be used in the lower Savannah River basin to help evaluate the impact of proposed flow regimes on riverine habitat and ecosystems.

ADR Network: Approximately 50 Coastal Plain ADR wells in the midlands area were visited; data were downloaded, manual measurements were made, and equipment checked at each well. QA/QC was performed on all data before it was added to the database. Water levels measured in ADR wells in the Black Creek and Tertiary Sand aquifers in Orangeburg County (Region 3) are displaying a typical pattern of summer water-level declines, but the water-levels are significantly lower than any level recorded since the ADRs were installed in early 2001. There also have been recent reports of irrigation wells going dry in the area. Staff hydrologists will continue to monitor the wells and will determine if the lower ground water levels represent a potential problem. Draft reports for the Black Creek and Middendorf aquifer potentiometric maps for November 2009 are nearly complete and will be submitted for peer review early next month.

FERC: Scott Harder attended a Water Supply Technical Committee meeting as part of the ongoing FERC relicensing of Duke Energy's Keowee-Toxaway project.

Geophysical Logging: A suite of geophysical logs was made in a new 500-foot well at the Orangeburg National Fish Hatchery in Orangeburg County.

Websites and Databases: 326 new well reports that were received from DHEC were sorted and processed. A new map showing the location of 620 Richland County wells in the DNR database was further refined, and work has begun on a map showing the location of more than 1,500 wells in Lexington County. A meeting was held with the Geological Survey to review and discuss their efforts to develop an Oracle database containing the DNR well data.

Outreach: Hydrologic information or assistance was provided to 21 customers. Joe Gellici attended the South Carolina Rural Water Association's annual conference and made a presentation about the DNR's efforts to update the State Water Plan. Assistance was provided to Dillon County public and private elementary school systems regarding a program being instructed to help educate children on the importance of water protection and conservation. Brenda Hockensmith attended a Region IV HUB meeting on August 9. Feasibility of the Hydrology Section assisting the S.C. Department of Transportation with an analysis of how a new bridge project on the Folly River (Charleston County) would impact the flow in a tidal creek was discussed with Bob VanDolah (SCDNR-MRRI); existing obligations and the short time frame for the project prevented further project participation.

Flood Mitigation Program

Staff Activities: Joy Sullivan and Maria Lamm participated in the monthly contractor conference call with URS and AECOM. Andy Brandenburg and Mrs. Lamm participated in the monthly Mitigation conference call with FEMA. Karen Jones helped FEMA with the monthly community status report.

Outreach: 18 ordinance reviews were done to ensure NFIP compliance. Work also was done on 4 Flood Map Modernization grant project management activities. Assistance was provided to communities in Anderson, Cherokee, Chester, Chesterfield, Marion, and Newberry Counties, whose flood maps become effective within the next two months. Assistance also was provided to the Towns of Blythewood, Luray, Jefferson, and Clio in preparation of their joining the NFIP. Union County's flood maps became effective this month, with 100% ordinance adoption. Preliminary DFIRM Community Coordination (PDCC) follow-up letters were sent to Laurens County communities. PDCC meetings are scheduled for Clarendon and Orangeburg Counties in September. 12 CAC/CAV (Community Assistance Contact/Community Assistance Visit) visits and 5 telephone CAC follow-ups were made this month. 537 technical assistance contacts (phone calls and emails) were made, and 1 technical assistance meeting was provided by staff. 57 updates were

made to the FEMA CIS (Community Information System) database. Staff provided CRS (Community Rating System) support to 4 communities.

Partnering:

Furman University

SCEMD

USGS – Earth Surface Processes

SCDHEC-OCRM

University of South

Team

Carolina -ESRI

National Park Service

College of Charleston Citadel

STATE CLIMATE OFFICE

The SCO answered 42 information requests, 2 were invoiced for \$65 and 11 media interviews were provided. The Assistant State Climatologist for Service assisted SCDNR Law Enforcement with 2 accident investigations and the SC Department of Highways and Transportation with the damaging flooding event near Bishopville during May 2011. Staff assisted SC High School Football League with research regarding statewide temperature and humidity during August practice. He completed a special weather summary on Hurricane Irene Impacts (8/26).

The Severe Weather Liaison issued 6 tropical updates, 3 advisories on TS Emily, and 5 advisories on Hurricane Irene. He attended the Hurricane Task Force meeting (8/4) and was activated for Emergency Response Team duty at the SC EMD Emergency Operations Center to provide onsite weather briefing support for State Agencies responding to Hurricane Irene (8/24-26). The WeatherAlert Email List serve increased to 1,186 .

The State Climatologist participated in the Southeast Regional Climate Center Technical Advisory Committee Meeting (8/3) and the Catawba Wateree Drought Management Group Conference call (8/11). She continued to focus on SCDNR's efforts to address climate change.