

"Citizens Working Together For A Healthy Coast"

Coastal Review

Spring 2005

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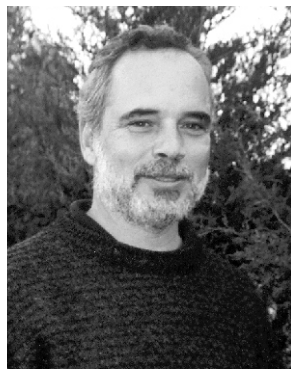
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June 25 – A Day at the Coast

Oysters in the Legislature

Summer Events & Programs



A Tale of Two Shorelines

Dear Friend of the Coast,

It was a beautiful, cool, brisk sunny February morning that made Bogue Sound sparkle.

Numerous dignitaries gathered at the NC Division of Marine Fisheries in Morehead City on the north shore of the sound to sign the newly finished Coastal Habitat Protection Plan.

It was an impressive array of people – the heads of the NC Department of Environment and Natural Resources, leaders of three state regulatory commissions, and numerous other big bosses of state environmental agencies.

Across the sound – not more than two miles away as the seagull flies – a new subdivision was quickly taking shape. It was being carved out of a skimpy amount of land between the sound and Highway 58.

As speakers on the north shore of the sound talked about the critical need to act aggressively to protect fisheries habitats, on the south shore at least one building lot, and probably more, was being created out of wetlands.

The signing ceremony concluded, and hot steaming local oysters were served. The crowd was festively celebrating eight years of hard work. Many of the people there had worked on multiple drafts of the plan that was first mandated by the Fisheries Reform Act that the NC General Assembly passed way back in 1996.

Fortified by a full belly of oysters and all the inspiring speeches, I was then motivated to cross the Atlantic Beach bridge and go take a look at the new subdivision. A Coastal Federation member called me that morning worried about this new development. He said he couldn't believe it was legal to make lots out of these wetlands, some of which he said looked like saltmarsh.

What I saw was a shock to me as well. Cape Lookout Coastkeeper Frank Tursi then investigated and asked the NC Division of Coastal Management and the US Army Corps of Engineers to take a look. The division and the Corps quickly stopped work on the lot. This sorry episode became front-page news in the local newspapers, and plenty of fingers are being pointed assigning blame.

Meanwhile, the Coastal Habitat Protection Plan now directs five years of coming work by three state commissions and their staffs to strengthen fisheries-habitat protection. A key part of the plan is strengthening enforcement of existing environmental laws. When the draft plan was circulated for

public comment, hundreds of people said enforcement of existing laws had to be a top priority.



Just about everyone – including various stakeholders such as developers, fishermen, farmers, and local government officials – agreed that it doesn't do much good to pass new laws and rules if the existing ones aren't enforced.

To address this crucial need, the plan calls upon state leadership to bring about better coordination and communication between agencies and more funding for enforcement staff.

There are many cynics among us who believe this new plan will just gather dust on a shelf along with other similar planning efforts from past decades. They may be right. But the events of this day in early February give us some hope they may be wrong.

What occurred shows that better enforcement of environmental rules is possible when the public is vigilant and involved, agencies are responsive, and the media sheds some sunlight over what's occurring.

In the final analysis, the real need isn't for more aggressive enforcement but to achieve better compliance with rules. To reach this objective, it's not necessary to catch everyone who ever violates a rule. What's needed instead is a credible effort at enforcement that documents, publicizes, and prosecutes just enough of the serious environmental transgressions so as to help educate the law abiding among us to do right, and deter others from doing wrong out of fear of being caught. Either way, compliance improves.

Above all, never underestimate the power of just one observant citizen. In this case, one person picked up the phone after seeing something that just didn't look right. He was the catalyst that made the system wake up, and work!

There will never be enough money, agency staff, and political will to have good compliance with environmental rules unless the public is engaged, and constantly leading our leaders to protect our coast.

Sincerely,

Todd Miller
Executive Director

Coastal Review

Coastal Review is the quarterly newsletter of the North Carolina Coastal Federation (NCCF). NCCF is a non-profit, tax-exempt organization dedicated to involving citizens in decisions about managing coastal resources. Its aim is to share technical information and resources to better represent current and long-term economic, social and environmental interests of the North Carolina Coast.

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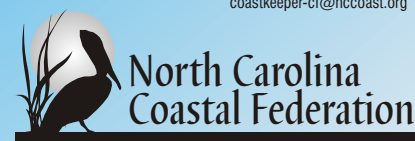
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The North Carolina Coastal Federation is located on Highway 24 in Ocean, NC, between Swansboro and Morehead City. Our offices, nature library and shop are open Monday through Friday, 8:30 am to 5 pm.

MEMBER
Earth Share
OF NORTH CAROLINA



LAYOUT/DESIGN: Anita Lancaster, Jacksonville, NC

Almost 60 Sign-Up for Coastkeeper Training

BY FRANK TURSI
Cape Lookout Coastkeeper

THE RESPONSE TO THE FIRST

Coastkeeper volunteer training sessions has been overwhelming. Our Coastkeepers had originally considered limiting their class size to 12 students each, but so many people expressed an interest that Ted Wilgis, our Cape Fear Keeper, and I enlarged their class to 20 students and Jan DeBlieu, our Cape Hatteras Coastkeeper, has 18.

Classes began in late February or early March in each of the Coastkeeper regions. All will end in April.

Students in each of the regions will take 16 hours of instruction on issues such as stormwater, illegal wetland fills and sedimentation violations. Each Coastkeeper will lead the training with help from representatives from state and federal agencies. After completing the training, the volunteers will work closely with the Coastkeepers to enforce environmental violations.

NORTHERN COAST *Beach Re-Nourishment Fever Spreads*

Undeterred by recent problems along the central NC coast, officials along the Outer Banks are courting residents to win support for their own, privately funded beach re-nourishment projects. The Dare County Commissioners are weighing whether to levy a 1-cent sales tax to pay for nourishment. And the town of Nags Head has hired Coastal Science & Engineering, the consulting firm that designed the Emerald Isle projects, to do a feasibility study.

A project in Emerald Isle in 2003 that was designed by the consulting firm led to numerous complaints after sand that contained as much as 87 percent shell was placed on the beach.

Nags Head officials say they're aware of the problems that occurred on Bogue Banks and are working to make sure



The state has forced the property owner to remove this bulkhead in Atlantic Beach.

they're not repeated. If a good source of sand can be found, Nags Head voters would be asked to approve a special tax for the project. Officials are not sure when the referendum would be scheduled.

Jan is working with Nags Head officials to make sure that they consider nourishment techniques that will cause the least possible harm to water quality and the animals that live along the surf zone.

CENTRAL COAST *Coastkeeper Report Leads to Bust*

The state Division of Coastal Management (DCM) found that a landowner in Atlantic Beach and his contractor illegally built a bulkhead in

coastal marsh. I sent photographs of the possible violation in February to DCM and the Army Corps of Engineers after being tipped off by a NCCF member in Beaufort.

DCM sent notices of violation to Matt Flora, a resident of Alexandria, Va., who bought a lot in the Coral Bay Ridge subdivision, and Eric Ellis, a contractor from Morehead City whom Flora hired to build the bulkhead. The state determined that Flora and Ellis built 140 feet of bulkhead in salt marsh without a permit. DCM will require that they remove the bulkhead and restore the marsh. State regulators say the landowner and contractor were using erroneous wetland maps and didn't intend to violate the law.

But I am pushing the state and the Army Corps, which issues dredge-and-fill permits for

wetlands, to do something about the houses in the subdivision that were built in the marsh, apparently without the proper state or federal permits.

SOUTHERN COAST *Hugo Neu Landfill*

Ted submitted comments on North Carolina Recycling's (aka Hugo Neu) application for a permit to fill 30 acres of wetlands to construct a 152-acre landfill and an automobile recycling plant in Navassa in Brunswick County. The large facility would receive tons of recycled materials from their other facilities that will be placed in a large landfill for future "mining". In NCCF's comments on the project, Ted stated the NCCF cannot support the approval of state and federal environmental permits for the project as designed. In addition, NCCF believes that an Environmental Assessment for the project is required, and that a public hearing should be required. NCCF has also been investigating whether or not the proposed landfill violates the Brunswick County land use plan. The county plan classifies sections of the property under consideration for the landfill as both Rural and Conservation and Resource Management. These classifications call for the long-term management and protection of the area.

Comment Letters Work (Sometimes)

On a successful note, the NC Division of Water Quality has denied an application by Dan Cameron to fill 11 acres of wetlands to build a truck stop in Brunswick County. Ted submitted comments on the proposed project recommending denial based on the applicant's failure to avoid and minimize wetland impacts and an inadequate mitigation plan.





Oysters in the Legislature

BY JIM STEPHENSON, Program Analyst

Oyster Restoration and Protection Act Introduced

Sen. Dan Clodfelter, D-Mecklenburg, introduced Senate Bill 925, the Oyster Restoration and Protection Act. The legislation is the keystone of NCCF's efforts to bring back oysters in North Carolina. The bill includes:

- \$237,000 to provide staff and operations in the Shellfish Sanitation and Recreational Water Quality Section to identify and map sources of pollution affecting shellfish growing areas.
- \$200,000 for planting an additional 160,000 bushels of shell for oyster restorations.
- \$200,00 for two new oyster sanctuaries a year.
- \$80,000 to hire a coordinator for the oyster-shell recycling program, and for infrastructure for shell recycling efforts.
- Provisions prohibiting new or expanded stormwater discharges into prime shellfish growing areas.
- Requirements that place stormwater retrofit projects on an equal footing with water and sewer projects for the State Revolving Fund (SRF) and other clean water bond issues; and that give the highest priority and interest-free loans for SRF projects that remove stormwater outfalls to shellfish waters.

Easley Requests Oyster and CHPP Funds

Gov. Mike Easley requested \$690,341 in 2005-06 and \$842,121 in 2006-07 for the Oyster Rehabilitation Program in the Division of Marine Fisheries (DMF). Easley's budget request includes four new positions for the Restoration Enhancement Section within DMF. The funds are designated for additional oyster restorations and no-take sanctuaries and to support an oyster shell recycling and public outreach program.

The governor also proposed \$210,000 in 2005-06 and \$275,000 in 2006-07 to implement the recommendations of the Coastal Habitat Protection Plan (CHPP). The plan was developed by the state's Coastal Resources, Environmental Management, and Marine Fisheries commissions, as required by the Fisheries Reform Act of 1997, to protect and restore resources critical to commercial and recreational fisheries.

Robin Smith, an assistant secretary of the NC Department of Environment and Natural Resources, said the CHPP funds would be



Senator Julia Boseman, D-New Hanover, is pictured with NCCF Lobbyist Jim Stephenson at the Oyster Summit reception for legislators.

used for gathering additional data and monitoring necessary to implement the plan. At the top of the list is the FerryMon Project, an automated water quality monitoring project in which water-quality data for Pamlico Sound and the lower Neuse River is collected during routine ferry crossings. Additional priorities include mapping habitat of submerged aquatic vegetation, shellfish bottom mapping in Brunswick County, completing a pier and dock inventory, and creating a beach re-nourishment monitoring database.

Oyster Hatcheries Bill Introduced

Senators Julia Boseman, D-New Hanover, and Scott Thomas, D-Craven/Carteret/Pamlico, introduced Senate Bill 550 to provide the state's three aquariums with \$300,000 to develop an oyster hatchery and public education programs at each of the aquariums.

The hatcheries and public education programs would be planned with advice from the NC Division of Marine Fisheries, NC Sea Grant, the University of North Carolina's

Coastal Studies Institute in Manteo, the Institute of Marine Sciences in Morehead City, and the Center for Marine Science in Wilmington.

Most states along the East Coast support commercial oyster hatcheries. Oyster hatcheries provide seed stock and spat for oyster restorations and sanctuaries. Hatcheries can also facilitate research on oyster survival, larval production and disease resistant larvae.

Bill Would Ban Oyster Shells in Landfills

Sen. Charles Albertson, D-Duplin, and Sen. Eleanor Kinnaird, D-Orange, introduced Senate Bill 1157 to ban the disposal of oyster shells in landfills. The bill is expected to help to spur public and private efforts to recycle oyster shells from restaurants and oyster roasts instead of being disposed in landfills.

Raleigh Summit Focuses on Bringing Oysters Back

BY JAN DeBLIEU, Cape Hatteras Coastkeeper

For every \$100 that the Chesapeake Bay has received from the federal government for oyster restoration, North Carolina's estuaries have received a dollar.

Federal funds for bringing the native oyster (*Crassostrea virginica*) back to NC waters have never been plentiful. Several speakers at the NC Oyster Restoration and Protection Summit, an invitational meeting co-sponsored by NCCF and held in Raleigh Feb. 23-24, drove that point home. But despite the relative scarcity of resources, biologists, fishermen, fisheries managers, and conservation groups have drawn up a road map, *Oyster Restoration and Protection Plan for North Carolina: A Blueprint for Action*, and are working together to follow it.

State Sen. Marc Basnight, D-Dare, offered his strong support at the summit for efforts to bring back oysters to NC waters. "The Carolina oyster needs a comeback," he told more than 150 policymakers, researchers and oystermen attending the summit.

A broad array of experts who attended a conference on oysters at NCCF headquarters three years ago came to the same conclusion. Their recommendations form the basis of the oyster plan. It's goal, like Basnight's, is to bring back the oyster. The plan hopes to do that by coordinating the restoration efforts of analysts, policy makers, and nonprofit groups.

The collaboration is paying off. On the summit's first day, held at the NC Museum of Natural Sciences, Ted Wilgis, the Cape Fear Coastkeeper, summarized the successes that the plan's participants have had so far. About 50 acres of oyster sanctuaries have been created since 2003, Ted noted. A state and federal pilot project that NCCF is coordinating will expand the scope of shoreline surveys that the state does to ensure the quality of shellfish waters to include entire

watersheds draining to shellfish waters. A new state law allows residents to apply for a general CAMA permit from the state Division of Coastal Management to build a "living shoreline" – a rock sill backed by constructed wetlands that will help protect adjacent oyster beds and underwater grasses – as an alternative to bulkheads.

Oyster shell recycling programs are gaining steam, regional working groups are planning and prioritizing restoration and protection projects for high quality shellfish acres, and the trustees for the NC Clean Water Management Trust Fund now regard the preservation of shellfishing waters as a high priority. NCCF, for instance, has received a \$100,000 grant from the trust fund to help implement the Oyster Plan and identify key conservation strategies for protecting important oystering grounds.

Plenty of challenges remain. Research scientists, conservationists, and state officials, including Senate President Pro Tempore Marc Basnight and Bill Ross, secretary of the NC Department of Environment and Natural Resources, spoke about the continuing threats to shellfish waters from stormwater, sedimentation, and excess nutrients. Combating these problems, they agreed, will require a coordinated effort that reaches from the state's inland waters to the coast.

About midway through its five-year timetable, the oyster plan is still a work in progress, and the summit was designed to give stakeholders a chance to tell NCCF how it can be improved. During the sessions on Feb. 24 at the McKimmon Center at NC State University, participants broke into groups to critique individual components of the plan. Workshops were held on oyster habitat restoration, water quality protection, education and public involvement, and marketing and fisheries development.

Participants were asked what steps most need to be taken to bring the oyster back. From the dozens of suggestions they offered, a few key themes emerged. Larger shellfishing sanctuaries need to be established. Stormwater sources in shellfish waters need to be identified and remedied. More studies must be conducted on water quality problems, and historic oyster reefs with suitable shellfish habitat must be mapped. Scientists will need the information to select the best locations to build or restore oyster reefs. An inventory should be compiled of important pieces of land that might be preserved. Public education and participation need to be better coordinated with research efforts. The state should develop a marketing plan to sustain a commercial oyster fishery. And much more money must be made available to protect water quality, restore oyster habitat, create a state-operated oyster hatchery and to support qualified scientists, regulators and state biologists working toward oyster restoration.

Wilgis, who heads the oyster restoration program for NCCF, is incorporating the suggestions into a new draft of the oyster plan.

"It's important to understand that the plan is not made completely of new initiatives," he said. "It's a tool to increase collaboration and focus between different groups, link and galvanize key initiatives, and identify gaps that need to be filled. We all share the same goals of clean water and a healthy oyster population, and this is a way to make sure we're working together to reach them."

Summit co-sponsors included North Carolina Sea Grant, the NC Department of Environment and Natural Resources, Albemarle-Pamlico National Estuary Program and the NC Coastal Federation.



President Pro Tempore Marc Basnight, D-Dare, urges an oyster comeback at the Oyster Summit.



Jim and Bonnie Swartzenberg show off their cultivated oysters at the Oyster Summit poster session.



Oyster Summit participants review ideas for bringing back oysters.



Summer At The Coast with the North Carolina Coastal Federation

Vacation plans conjure visions of lazy days and sandy beaches. While relaxing at the coast, we hope you'll join NC Coastal Federation staff for an activity that's sure to make a trip more enjoyable and memorable. We offer unique, fun, events and programs – and yes, we might just slip in an environmental lesson here and there.



A Day at the Coast June 25

It's a full day of field trips, demonstrations, tours, fun, food, entertainment and fellowship for members and friends. Spend the morning birding along the White Oak River, learn to surf fish in the afternoon at Cape Lookout National Seashore or kayak to Huggins Island. Help plant a shoreline on Harkers Island or canoe in Hoop Pole Creek. Top off the day with a great seafood dinner and then enjoy the hit show *King Mackerel & The Blues Are Running*. For more details, look for the insert in this newsletter, call 252-393-8185 or visit www.nccoast.org.



Beach Walks with a Coastkeeper Every Wednesday, Jun 22-Aug 31 Pea Island National Wildlife Refuge and Bird Island

Explore the natural wonders of the shore and learn about major environmental issues facing the NC coast with a NCCF Coastkeeper. Beach walks are popular two-hour outings hosted by Jan DeBlieu, the Cape Hatteras Coastkeeper, and Ted Wilgis, the Cape Fear Coastkeeper.

Ted will join representatives of Audubon-NC, the NC Coastal Reserve Program, NC Coastal Land Trust and volunteers to lead walks on Bird Island in New Hanover County on Wednesdays at 10 am from June 15 – August 31. For detailed listing of who will be leading each walk contact Lauren Kolodij at 252-393-8185 or email her at laurenk@nccoast.org.

To register, call Jan at 252-473-1607 or email her at hatteraskeeper@nccoast.org; call Ted at 910-790-3275 or email him at coastkeeper-cf@nccoast.org.

Hike A Coastal Trail Every Day

NCCF manages two uniquely beautiful nature trails, and both are open daily during daylight hours. The Patsy Pond Trail is located in Ocean, NC, in the Croatan National Forest near NCCF's headquarters. This trail winds through longleaf pine flat woods, through pocosins to several shallow ponds and is one of the most diverse areas in NC. Home to red-cockaded woodpeckers and carnivorous plants the trail offers three trails ranging from ¾ mile to 2 miles.

The Hoop Pole Creek Nature Trail meanders through a 31-acre clean water preserve purchased by NCCF through the NC Clean Water Management Trust Fund. Globally imperiled maritime forests and eight other distinct habitats highlight the ¾ mile trail located next to Atlantic Station in Atlantic Beach off Hwy 58. The area is the site of several habitat restoration projects, including a major oyster habitat restoration and creation project. This trail is handicapped accessible.



Barrier Island Ecology Tuesdays and Thursdays, Jun 7 - Aug 11 Cape Lookout National Seashore

Join NCCF for an educational walk from the estuary to the ocean. Learn about animal and plant adaptations for life on a barrier island, the constant migration of these barrier islands, and environmental issues the Cape Lookout National Seashore faces today. All ages are welcome. Please wear comfortable walking shoes, clothing, and appropriate sun-gear. Programs are free and start from the lighthouse at 11 am and 1 pm on the dates listed above.



King Mackerel & The Blues Are Running June 22-25, June 29-July 2, July 6-9 Joslyn Hall, Carteret Community College, Morehead City

Back by popular demand, and celebrating the show's 20th Anniversary, the Coastal Cohorts return to Carteret County for a spectacular summer run of *King Mackerel & the Blues Are Running*.

The 12-show *King Mackerel* summer run will feature the original Coastal Cohorts – bassist Don Dixon, pianist Bland Simpson and guitarist Jim Wann. This year's show is especially exciting as the Cohorts are celebrating the 20th Anniversary of the show, which was created in 1985. The 2005 summer run comes on the heels of last year's two-week run, which sold out every night, packing Joslyn Hall in Carteret County with foot-stomping, hand-clapping and shaggin' Cohort fans.

Show sponsorships are available and entitle sponsors to complimentary tickets, reserved seating and a listing in the King Mack Playbill. Sponsorship Levels: \$100 Flounder (2 tickets), \$250 Red Drum (4 tickets), \$500 Blue (6 tickets), and \$1,000 King Mackerel (8 tickets). General seating tickets are \$15 for NCCF members and \$20 for nonmembers. For sponsorships or tickets call NCCF today at 252-393-8185.

Visit NCCF Headquarters Monday-Friday, 8:30am-5pm

NCCF headquarters houses the "best little nature library." You'll want to spend some time here where you'll find NCCF project exhibits and information, the Weber Seashell Exhibit, our famous Nature Library (members have check-out privileges) and a coastal gift shop full of educational gifts and books. The NCCF headquarters is open Monday through Friday between 8:30 am and 5 pm. We're on NC 24 in Ocean, about halfway between Swansboro and Morehead City.



Restoration in Full Swing at North River

BY TRACY SKRABAL, Senior Scientist

A LOT MORE THAN CROPS HAVE BEEN

planted at North River Farms this spring. Twelve students from Vanderbilt University gave up their spring break in March to plant nearly 30,000 trees at the farm in eastern Carteret County. Volunteers from Carteret Community College, sixth graders from Smyrna Elementary, the Carteret County forester, and a team of planters from Edenton joined the university students.

All lent a hand in helping restore wetlands on the 5,100-acre farm. The NC Coastal Federation and private investors bought the farm in 2001-02. We plan to restore wetlands on the property in hopes of improving water quality in North River and surrounding watersheds. Much of those waters are now permanently or temporarily closed to shellfishing. The project is the largest wetlands restoration project in state history.

The Vanderbilt students and the other volunteers planted 12 different native wetland species, including Atlantic white cedar, sycamore, and green ash. The US Fish and Wildlife Service and Partners for Fish and Wildlife paid for this 206-acre portion of the restoration. The trees should mature into a beautiful hardwood wetland forest that will provide wildlife habitat and filter stormwater runoff.

Following the March planting, 545 acres of the farm have been restored out of the total 5,100 acres- 250 acres in the North River watershed in 2003, 89 acres in the Jarrett Bay watershed in 2004, and this year's 206 acres in the North River watershed.

A planting of a different kind occurred at the farm in February when NC State University's Solar Center installed an anemometer with the help of nine Coastal Federation volunteers. This tower will monitor wind speed and direction during the next 13 months as part of the Solar

Center's study of wind-power potential in eastern North Carolina. The center is installing 10 towers across the region as part of the study. At 165 feet, the tower at North



ABOVE: NCCF volunteers prepare to raise the 165-ft anemometer at North River Farms using pulleys. **BELOW:** Laura Montague and Tung Yan Lau dedicated their spring break from Vanderbilt University to help restore North River Farms.

River is one of the tallest. It won't generate any power, but data from it will be downloaded monthly to help determine the region's potential for this sort of renewable energy.

NCCF is nearing completion of the next step of the North River restoration – permitting for the 123-acre tract fresh and saltwater wetlands. If the permits are received, construction will take place in late summer. This will be the second phase of restoration in the North River watershed, and is being funded through US Fish and Wildlife Service, EPA, and NC's Ecosystem Enhancement Program.

Designed by NCSU, this project will not only restore valuable habitat, but will also divert runoff from neighboring Open Grounds Farm through the restored wetlands, effectively providing stormwater pre-treatment of the runoff before it enters the adjacent waters of North River and Wards Creek.



Work Begins on Stump Sound and Hewlett's Creek

BY TRACY SKRABAL, Senior Scientist

NCCF'S RESTORATION AND EDUCATION TEAM HAS jumped into this year's work. With the help of volunteers, team members have already filled hundreds of bags of oysters and planted thousands of marsh grasses. Volunteers in March bagged oyster shell at Hoop Pole Creek, and a second volunteer event was planned for April 16 in Sneads Ferry. These bags of oyster shell will be "set" with oyster larvae in tanks, and then transferred to newly restored oyster reefs. NCCF will restore more than three acres of oyster reefs in Stump Sound and Hewlett's Creek this summer.

Living Shorelines

Big changes are coming to NCCF's 52-acre Morris Landing property on Stump Sound. NCCF in April will restore 500 feet of degraded shoreline with a project that will include a sill and wetlands plantings. Through an agreement with Holly Ridge, a public walkway and pier will be built at the site. The NC Division of Marine Fisheries will add an oyster shell stockpile area and pier to the site, which will be used for reef restoration projects.

Plans remain on schedule for this summer's restoration project at Carteret Community College. Plans include shoreline restoration, the use of bagged oysters and domes for erosion control and habitat enhancement, and the construction of a wetland to treat stormwater headed for Bogue Sound.

Environmental Education

Students involved in the Wetland Nursery Program are excited to get outside and plant their marsh plants.

Classes have worked hard this winter conducting experiments with *Spartina alterniflora*, and taking care of their seedlings. The students recently moved their plants to their outdoor nurseries, where they will grow until planting time. The students will use the plants in April or May in living-shoreline projects in Wrightsville Beach and Harkers Island.

Baby, it's cold outside! Dedicated students have helped throughout the winter to prepare for oyster season. Thirty students from Carteret Community College worked to fill more than 200 oyster bags for use this summer. Students from Dixon and Croatan high schools also collected data from three reef sites. We hope to involve these and other schools with NCCF's oyster reef monitoring.

New Summer Program

Cape Lookout National Seashore, NCCF, and Carteret County Parks and Recreation will partner this summer to provide new educational programs for visitors to the park. The newest program, a Barrier Island Ecology educational walk, will be offered for most of this summer. NCCF's staff will teach about animal and plant adaptations, barrier island migration, and current environmental issues.

Restoration Volunteers Needed!

Helping with habitat restoration is a great way to get involved, and we have needs for all ability levels! Interested volunteers should call Rachael Carlyle at 252-393-8185 or email her at rachaelc@nccoast.org.



A student from Dixon High School in Holly Ridge helps NCCF's Sarah Phillips measure oysters at a reef in Carteret County.



Students at J.H. Rose High School in Greenville bag oyster shells at NCCF headquarters.



Students at Carteret Community College help NCCF's Sarah King (second from right) bag oyster shells.



NCCF staff drop off marsh grass at a wetland nursery at Friends School in Wilmington.



Bill Would Empower Commission to Study Global Warming

BY JIM STEPHENSON, Program Analyst and
LAUREN KOLODIJ, Program Manager

A BILL INTRODUCED IN THE STATE SENATE WOULD SET UP A commission to begin investigating the possible effects of global warming on North Carolina and ways the state can cut emissions of gases that cause warming. Senate Bill 1134, introduced by Senator Charles Albertson, D-Duplin, and a dozen cosponsors, would empower a 30-member commission to conduct a review of scientific literature on the possible causes and likely impacts of global warming with an emphasis on North Carolina. The commission will also recommend a greenhouse gas reduction goal for the state and a process for developing a state climate action plan.

NCCF, NC Environmental Defense and the Southern Alliance for Clean Energy are working with Albertson and Sen. Marc Basnight, D-Dare, in the Senate. A House version of the bill will also be introduced.

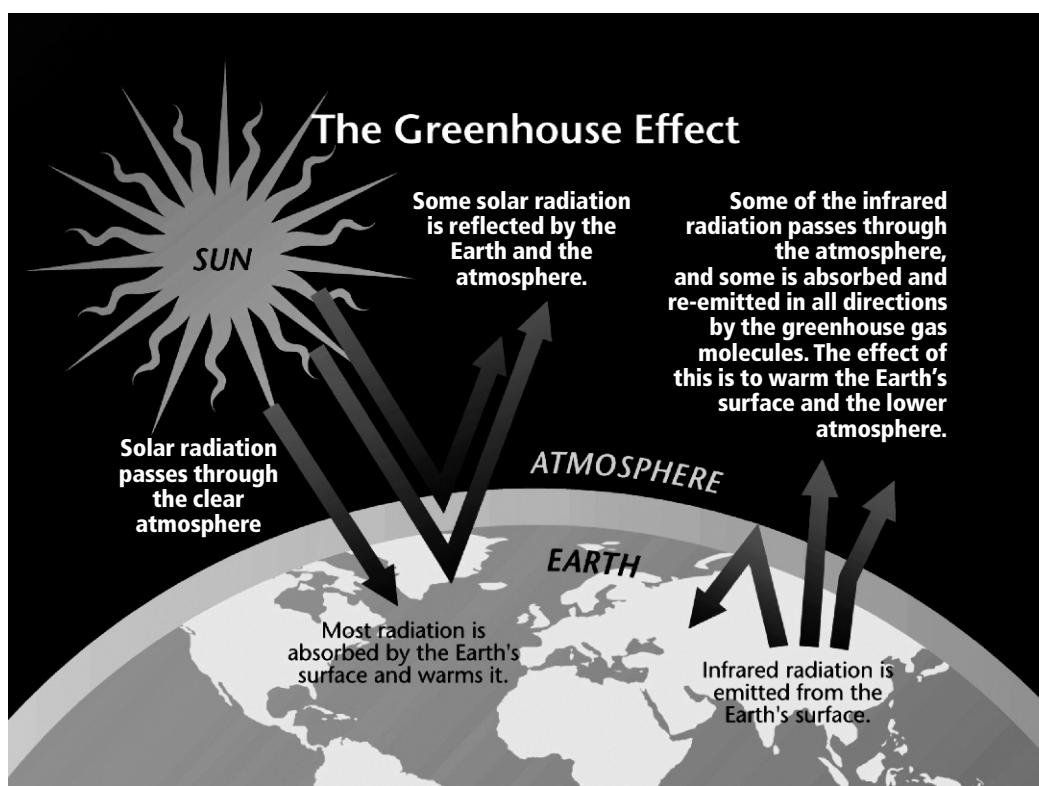
NCCF in 2004 published its annual *State of the Coast Report* on the potential effects of global warming on coastal North Carolina. The report and a fact sheet can be found at www.nccoast.org.

Navy Developing Sonar Range

The Navy is studying building a submarine warfare training range 65 miles off the North Carolina coast near the Camp Lejeune Marine Corps base in Onslow County. The 661-square-mile underwater range would use sonar to detect and engage in mock battles with diesel electric submarines.

These types of submarines are relatively small and quiet and can operate in shallow waters. Forty-five countries own 380 of these stealth-like submarines, according to a report issued by the Navy in April 2004.

Sonar uses sound waves to detect objects beneath the sea. It can have negative effects on whales and possibly other marine life.



Components of the project include organizing a watershed roundtable, undertaking an analysis of the suitability of lands for development or conservation, preparing a survey of water pollution sources, comparing the economic effects of several development strategies, conducting extensive community outreach and technical training, developing a land acquisition plan, distributing fact sheets on the project's findings and holding a major public conference.

"In the end, we hope to promote land-use practices within the Lockwood Folly River watershed that are compatible with the water quality and aquatic resources that are part of the natural heritage of Brunswick County," says Steve Stone, assistant manager of Brunswick County.

Easley Reappoints Shepard to Coastal Resources Commission

Gov. Mike Easley reappointed Melvin Shepard, NCCF's board president, to the 15-member NC Coastal Resources Commission (CRC). Shepard is from Sneads Ferry in Onslow County.

Easley reappointed three other commission members: Doug Langford of Dare County, Jerry Old of Currituck County and Bill Peele of Beaufort County.

Three people were appointed to the CRC for the first time: Chuck Bissette of Carteret County, Charles (Boots) Elam of Wake County, and Dr. James Leutze of New Hanover County. Leutze is the former chancellor of the University of North Carolina at Wilmington.

Easley also appointed Dr. Courtney Hackney, a marine biologist with the UNCW, as the new chairman. He succeeds Gene Tomlinson who resigned from the commission in March. Tomlinson was appointed to the CRC in 1977 and served as its chair since 1993. Another member, Pricey Taylor Harrison was recently elected to the state House from Guilford Co. and was not eligible for reappointment.

Navy sonar may have caused the beaching of more than 30 pilot, minke and sperm whales on Dare County beaches in January.

In addition to the North Carolina site, the Navy plans to evaluate sites off of Jacksonville, FL, and Wallops Island, VA, in a draft environmental impact statement (DEIS) expected to be released this spring.

NCCF and NC Environmental Defense plan to assign a summer intern from Duke University to evaluate the potential impacts of the Navy proposal and comment on the DEIS.

Brunswick Plans Watershed Strategy

Brunswick County and the NCCF are collaborating on a two-year project to develop a multifaceted watershed-based land-use strategy in the Lockwood Folly River watershed, one of the more rural areas of the county. The demonstration project is supported through a grant from the US Environmental Protection Agency.

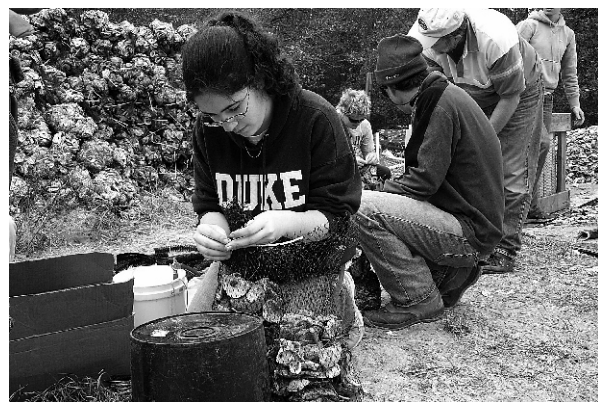
NCCF Volunteers Have Been Busy This Winter

BY RACHAEL CARLYLE, Volunteer Coordinator

MORE THAN 100 VOLUNTEERS SPENT 1,425 HOURS working to protect our coast. Their jobs were varied and their dedication endless. Some were land stewards and helped monitor our property at Morris Landing in Onslow County. Others helped with mailings and newsletter delivery or landscaped the NCCF headquarters. Volunteers planted more than 10,000 trees at North River Farms and helped put up a the wind tower there. They filled more than 300 bags with oyster shells and removed 14 bags of trash and recyclables from NCCF's Hoop Pole trail in Atlantic Beach. Volunteers worked in our Daland Library, at our reception desk and appeared on our monthly cable TV show.

It's pretty safe to say we couldn't do what we do without the help of all these good people.

To give volunteers an idea of the projects they can work on this year, NCCF had a workshop at our headquarters Feb. 15. About 25 people attended. Staff members presented information on the various volunteer tasks and activities in 2005 including oyster restoration, wetland plantings, trail maintenance, festivals, and the Coastkeeper program. This was a great opportunity for volunteers to meet the Coastal Federation staff and other volunteers.



Linnie Giovanelli helps bag oyster shells for Hoop Pole Creek.

Tip of the Sunvisor

Special thanks to the following volunteers who have donated their time and enthusiasm to the NCCF since the last newsletter:

Barrell Barbour, Rick Barreuther, Randy and Deb Bettini, Fred Bisbee, Jennifer Boos, Nan Bowles, Lambeth Chalk,

Doug Champion, Scott Chappell, Jack Cleaves, Vance Creech, David Collins, John U. Davis, Ed and Beth Edmunson, Richard Ehrenkauf, Emily Farmer, John Fussell, James Barrie and Ellen Gaskill, Linnie Giovanelli, Rodney Guajardo, Mel Guss, Jason Jarvis, Beebe Jeffries, Mike Jenkins, Bob Johnson, Tim Jones, Sarah Hamilton, Janet Hanson, Evelyn Harder, Joe and Ann Hardesty, Caitlin Harris, George and Emily Henson, Rob Hilton, Mark and Penny Hooper, Pamela Hoovler, Sara Huckaby, Marg Husni, Abbi Hutcherson, Gretchen Hutter, Zul Ibrahim, Genevieve



UNC Chapel Hill students help monitor the Hoop Pole Creek shoreline.

Krawczyk, Amy Jo Lang, Tung Yan Lau, Richard LeBlond, Lynn Lewis, Mary Lockhart, Amanda Lolling, Xin Lu, Ryan Maloney, Jackie Mardan, Julia Marden, Randy Mason, Denise McDougall, Marty McGuire, Lee Messner, Vance and Grant Miller, Sarah Mills, Margie Misenheimer, Laura Montague, Beth Moulton, Richard Naldi, Beth Napier, Peter Norvick, Kathleen O'Neal, Suha Patel, Marc Phillips, Luke Powers, Sheila Raybon, Meg and Bill Rawls and family, Dot Reist, Allen and Virginia Ripley, Warren and Carol Ritchie, Karen Rooney, Karen Rossignol, Jake Ryan, Komal Shah, Judson Simon, Cheyenne Smith, Weston Smith, Donna Snead, Jack Spruill, Herb Stanford, Adrienne Story, Rob and Lauren Stranahan, Kelly Stuart, Susan Suggs, Doug Wakeman, Mark Walker, Gary Washburn, Jacqueline Whelan, Ann White, Harry Wigmore, Ashley Willis, Jim Willis, Scott Winchester, Ken Wood, Ben Wunderly, Frank and Carol Zmirak.

The Coastal Federation would also like to thank Vanderbilt University's Alternative Spring Break group, the University of North Carolina Chapel Hill's SHINE

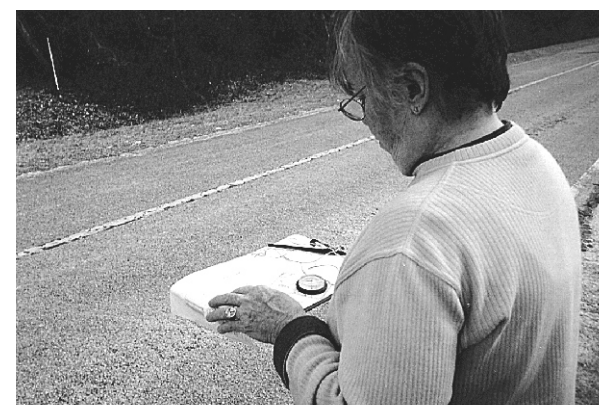


Vanderbilt University students plant trees at the North River Farms.

organization, and Meg Rawls, and Karen Rossignol's Carteret Community College classes for working with NCCF volunteers on some of our larger projects since January.

NCCF Public Outreach

NCCF would like to expand our public outreach by attending more festivals from the Triangle to the coast. Volunteers play a major role by staffing the Coastal Federation booth at the festivals we attend. If there is a festival you would like to see NCCF attend or if you are interested in helping staff the NCCF booth at the various festivals, please contact Rachael Carlyle, Volunteer Coordinator at rachaelc@nccoast.org or 252-393-8185.



Beebe Jeffries documents photo coordinates of the Morris Landing property as part of the stewardship program.

CALL FOR VOLUNTEERS

Volunteers are needed for the following projects. Please contact Rachael Carlyle at 252-393-8185 or email her at rachaelc@nccoast.org if you are interested in helping out.

- May 17:** White Oak/Quarternary Clean Up (Stella)
- May 21:** Morris Landing Clean-up & Planting (Holly Ridge)
- June 4:** Huggins Island Clean-up (Swansboro)
- June 18:** Community Music & Water Festival (Edenton)
- June 18:** Neuse River Days (New Bern)
- June 25:** Harkers Island Planting



NCCF 2005 Calendar of Events

May 17

White Oak/Quaternary Clean Up
Stella

May 21

Morris Landing Clean Up
Holly Ridge

June 4

Huggins Island Clean Up
Swansboro

June 7-August 11

Barrier Island Ecology,
Cape Lookout National Seashore

June 16-17

**Coastal Resources Commission
Meeting,** Inland Location

June 22-25,

June 29-July 2, July 6-9

**King Mackerel & The Blues Are
Running,** Morehead City

June 22-August 31

Coastkeeper Beach Walks,
Pea Island and Bird Island
Every Wednesday

June 24

**Fishing with Frank
Cape Lookout Coastkeeper**
Cape Lookout National Seashore
Additional dates:

July 4, July 22; Aug 5, Aug 19; Sep 3,
Sep 23; Oct 7, Oct 28

June 25

A Day at the Coast
for NCCF Members

September 15-16

**Coastal Resources Commission
Meeting,** Northern Location

October 1

Big Sweep, Morris Landing

Sept 30 - Oct 2

Seafood Festival, Morehead City

October 14-23

State Fair, Raleigh

November 17-18

**Coastal Resources Commission
Meeting,** Southern Location

December 2-4

Core Sound Weekend
Harkers Island

December 9

Volunteer Holiday Party,
NCCF Headquarters

www.nccoast.org



Thank You Members! NCCF License Plate To Hit the Road

Start looking for NCCF's specialty license plate this summer. NCCF members rallied to sign up friends and family to get the 300 applications needed to begin production of our specialty license plate. Applications have been forwarded to the Division of Motor Vehicles and our project is underway. As soon as all approvals are completed, production will begin. Of course, we need all the folks we can get to sign up for a plate. Every specialty plate generates \$15 for the Coastal Federation's work. Applications are available by calling NCCF at 252-393-8185 or online at www.nccoast.org.

HELP PROTECT AND RESTORE OUR COAST!

Join NCCF TODAY!

- While your membership donation is at work, you'll appreciate the following list of member privileges: Quarterly newsletters; discounts on workshops, events and education programs; invitations to NCCF's annual Coastal Celebration and other great events; members' decal; use of the NCCF Nature Library; Action Alerts letting you know about critical coastal issues and meetings; and a copy of the annual **State of the Coast Report**.
- **Tax information:** Membership fees minus the value of benefits received are tax-deductible. Check here if you wish to waive benefits and receive the maximum tax deduction.
- **Matching Gifts:** Many companies offer a matching gift program to their employees to encourage support of organizations like NCCF. Double your dollars to the coast by including your matching gift form.

Individual or Family:

\$25 \$50 \$100 \$250 \$500 \$1000

Business, Group or Organization:

\$50 \$100 \$250 \$500 \$1000

Name: _____

Address: _____

City: _____

State: _____ Zip: _____ County: _____

Phone: () _____

Email: _____

Please make check payable to NCCF and mail with this form to: 3609 Highway 24 (Ocean) Newport, NC 28570 • You can charge your membership by calling toll-free at 800-232-6210 or visit our web site at www.nccoast.org.

NC Coastal Federation members and donors provide funding for restoration, protection and education programs. All gifts of time, gifts in kind, and dollars are sincerely appreciated. The following NCCF supporters have donated at recognition levels since the last newsletter.



Special thanks to photographer, George Mitchell who donates use of his coastal photographs to the NC Coastal Federation. For more information visit www.lighthouse-aerials.net.

Individuals

John L. and Christine D. Almeida, Caroline D. Ashford, Mr. and Mrs. Robert A. Ayres, Carrie Banwell, Richard Bierly, Bill and Anne Brashear, Susan and Robert Crenshaw, Hugh Cullman, Martha Dilworth and Collett Dilworth, R. J. Eckhardt, Susan Edwards and Mr. David Staub, Dr. and Mrs. Charlie Godwin, Adelaide Gomer, Mike and Dot Hamby, Bobbi and Matt Hapgood, Kathryn B. Howd, Everett and Victoria Jenkins, Dr. J. Tom John, Jr. and Dr. Brenda Butka, Joseph E. Kilpatrick, Stephen and Nancy Knight, Mr. and Mrs. Edward E. Lea, Jr., Anna Logan, Dr. and Mrs. Charles Lynch, Jr, Mr. and Mrs. Bruce Mallette, Mr. and Mrs. Ron Marks, Edmund "Beau" McCaffray, Dr. and Mrs. Peter Meyer, Frank Nesmith, Grace Nordhoff and Jonathan Beard, Mae Parker-Boles, Jim and Chris Rice, Jim Rumpfelt, John Runkle, Julie Shambaugh and Todd Miller, Tillie and Melvin Shepard, Ann and Bland Simpson, Keith Smith, John R. Spruill, Fred and Alice Stanback, Jr., Sally Steele and Lee Taylor, Craig and Cathy Steffee, C. L. Weill, Jr., and Don Whicker and Martha Hudson.

Businesses and Organizations

Additions Plus, Biltmore Estate Wine Company, Coastland Corporation, CoFish International, Eastern Surfing Association, First Citizens Bank, GFWC Junior Woman's Club, Grady-White Boats, Inc., Henry's, Hunter Industries Inc., New River Nets, North Carolina Beer and Wine Wholesalers Association, North Carolina Environmental Defense, North Carolina Department of Agriculture and Consumer Services, Pamlico Packing Company, River Dunes Corporation, Salter Path Camp Ground, Sportsman's Pier, Inc., Sunset Beach Taxpayers Association, Surf or Sound Realty.

Foundations

Cemala Foundation, Inc., FishAmerica Foundation, NC Clean Water Management Trust Fund, Julian Price Family Foundation, NOAA, North Carolina Community Foundation, Restore America's Estuaries, Triangle Community Foundation, and The Winston Salem Foundation.

Honorariums

John Buzby and Ms. Jackie Zlotnick from Brian Buzby and Kaci Bishop, and Christopher Buzby and Alison McCormick • Jeff DeVore from Kathy DeVore • Bob and Diane Hardy from Karen Hardy • The Williamson Family from The James Family • Bobbi Hapgood from Lynn P. Babicka

Memorials

Mary Elizabeth McCroan from Kenneth and Mary Alice Knight • Betty Lamoureux from Peter, Cathy, Ben and Jason Meyer