UNC Sea Grant

November/December, 1984

COASTWATCH

Photo by Spencer Rogers

At Masonboro Boat Yard, floating homes (background) dock alongside pleasure boats

Floating homes

The ceiling fan whirred as R. Ryerson Bennett stretched out on the sofa in front of the open glass door. His wife sat down beside him to watch the birds and to relish the cool breeze passing through the room. To the Bennetts, there's nothing quite like living in a floating home. The free-spirited, barefooted kind of lifestyle suits them just fine.

After sailing along the East Coast for 16 years, the Bennetts finally put their anchor down in Wilmington's Masonboro Boat Yard two years ago. They sold their boat and built the home that is now 260 square feet of contentment for them.

Floating homes, complete houses resting on a hull, are not a new idea. The Japanese and Chinese have been living on them for years. In the United States, their popularity is growing, especially in Washington and New Jersey. Only about 30 such vessels are moored in North Carolina's waters. Seven of them are

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floating at the Masonboro landing among sailboats and motorboats.

Living in a floating home is comparable to its conventional counterpart, but most residents say it's even better. They have electricity, running water, televisions and telephones. And there is air conditioning and heating. As a matter of fact, Andy Canoutas says he doesn't miss anything after seven years on the water—not even a yard. "I got so tired of cutting grass," says Canoutas, an attorney in Wilmington. That was one of the reasons he built his floating home in the first place, but there were others.

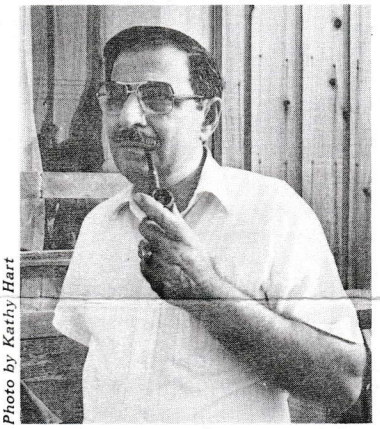


Photo by Kathy Hart

Andy Canoutas

"I love the water," he says. And, "the people here are very unique."

About 40 people live at the boat yard year-round, says office manager Steve Lee. The resulting community is a hodgepodge of professionals, retired people, natives, world travelers, singles, couples and more. Everyone is different, yet there's something that binds them all together.

"Everybody's interested in the same thing," says Bob Pierce, an 80-year-old Pittsburgh, Pa., native who moved to Wilmington four years ago. It's the water, boats and nature that draw them to the docks.

"It's like a constant nature show," says Suzan Perry-Canoutas. "It's so peaceful out here."

Being able to look out the window and see changing scenery, sunrises, sunsets and exotic birds is what she enjoys most about living on the water. It's not unusual for her to see dolphins playing, pelicans diving or fish jumping in the water. A few years ago, some otters came to live on her back porch. And when the season's right, she and her husband go shrimping, crabbing or shellfishing in surrounding waters.

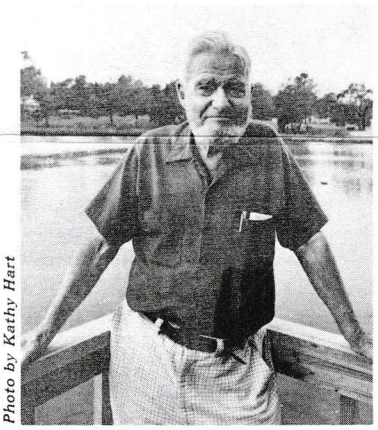


Photo by Kathy Hart

Bob Pierce

Kitchen-window viewing goes beyond normal bird watching at the Bennetts', too.

"One day we had an octopus hanging on the side of the boat," recalls Ryerson. "It would move on the side of the boat as it ate the barnacles." He and his wife, Mary Jo, watched the 10-foot creature for hours as it inched down the boat.

Because they live on the water, most of the boat yard's permanent residents say they are more conscious of the weather and seasons. They can sense the season's change by noting wind directions, moon positions, differences in water color and the types of birds flocking around the boat yard.

Bonds such as these add to the community spirit at the boat yard.

"Everybody is real close," says Suzan. It's like a big family. And to them, any time is a good time to get together.

Twice a month, the family meets for community dinners. Then there are parties when people leave the marina, when they come back, for good weather, birthdays and any other "excuse" they can think of. Once the boat yard even held a birthday party for the 17-year-old cat of one of the residents. Of course, all the other cats and dogs from the marina were invited.

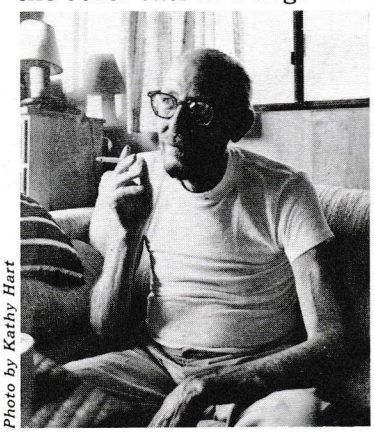


Photo by Kathy Hart

R. Ryerson Bennett

Halloween and Thanksgiving are two annual celebrations you wouldn't want to miss, says Ryerson. Crazy costumes are a trademark of the Halloween parties. And at Thanksgiving, the food and fellowship come in generous proportions.

Probably the most special time of year at the boat yard, however, is Christmas. Each year, boat owners have a party and decorate a tree on the waterway with "personalized ornaments" that say something about themselves. When the tree is finally lit, "You can see it beautifully from the waterway," says Ryerson.

If you're thinking that Masonboro Boat Yard is the Shangri-La of the South, there are a few disadvantages to living on a floating home.

One is that it might blow away. During Hurricane Diana, the homes were either tied to the dock or moved back from the open water. Most of them survived the storm with little damage. The heavy rains soaked Andy and Suzan's ceiling, while the winds knocked away their steps, a few of Bob Pierce's windows and 24 of the Bennetts' tomatoes.

Rough water can be a problem at other times of the year, too. Although he doesn't have much trouble with pictures and plants falling from the wall, Andy says it's hard to get his balance upstairs or in the downstairs shower when the house is swaying.

Mildew and cold walks down the dock in the winter were two other annoyances residents mentioned. And then there's the matter of putting things away.

"Storage is a tremendous problem," says Mary Jo. Ryerson is constantly putting up new shelves,

bookcases or hanging baskets for her to use as stowage.

The situation is similar at Andy and Suzan's. Even with 800 square feet of space, it seems they always need more. The closets are packed, and things are tucked here and there all over the house.

Residents never hesitate to tell visitors one other thing about the boat yard—it has a monster. The illusive Masonboro Monster lurks underneath the boats that moor there, grasps onto them and never lets them go. Sailors come intending to stay only a night or two and end up docking for years. People take trips and come back, and others come back seasonally.

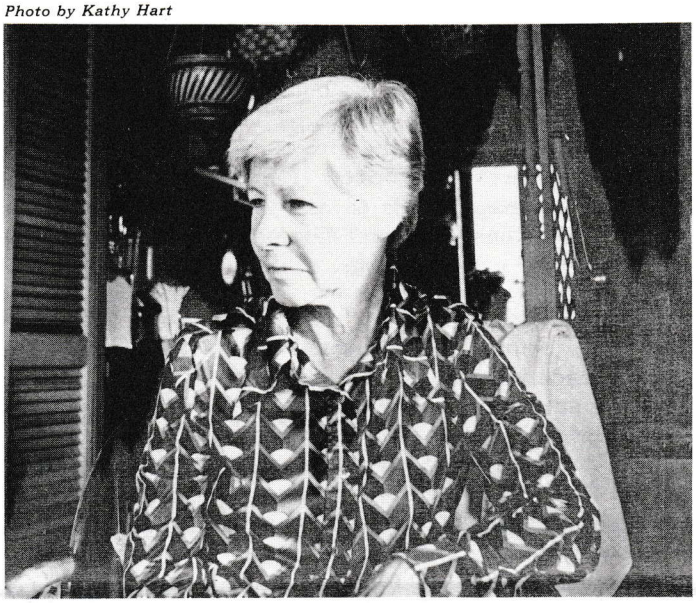
Bob Pierce was one of those who became permanently entangled in the tentacles of the monster. He first came to the boat yard in 1972 when he and his wife were sailing the coast. They liked the place so much that every time they traveled by it they would stop and stay awhile. When Pierce and his wife stopped sailing, the tides carried them back to Masonboro, where they built their floating home.

"We had been cruising, and we'd been on the water for 14 or 15 years," Pierce says. "We liked being on the water. We liked waterfront property, but we didn't like to rake leaves or mow the lawn."

Like Pierce, "People just keep coming back," says Mary Jo. "Yes, that's the charm of the yard."

—Sarah Friday

Photo by Kathy Hart



Mary Jo Bennett

New wave in housing

Regulating life on the water

Most people prefer to live on dry land. But others like a wetter environment. They'll choose a house that rolls with the swells over one on solid ground any day.

More people are moving into floating homes as a way to obtain low-cost waterfront housing. But the increase is causing some headaches for state and local governments as they struggle to regulate waterborne housing.

At the base of the struggle lie three main questions: what is a floating home, who has the authority to regulate it, and why does it need regulation?

Take the first question. What is the difference between a floating home, a houseboat and a boat? The answer depends on who is doing the defining.

According to the N.C. Coastal Resources Commission, a boat is a self-propelled vessel that is used to travel from place to place by water. Sailboats, power boats and what most people consider as houseboats—self-propelled trailer-like structures attached to a hull—fall into this category.

On the other hand, a floating home, called a "floating structure" by the CRC, is a vessel that has no means of operative propulsion, is inhabited or used commercially in one place for more than 30 days, and contains more than 200 square feet of living space. For the most part, a floating home looks like a house built on a barge.

New Hanover County, the only county in North Carolina to regulate floating homes (see story, page 5), considers a floating structure any "primarily immobile" vessel or structure used as a permanent residence, business or club site. It makes no difference whether the vessel or structure has a means of propulsion.

The definitions for floating homes also vary from state to state. In Seattle, Wash., a floating home is a building constructed on a float, which is used partially or entirely as a single-family dwelling.

Federally, no distinction exists between floating homes and boats. Anything that floats is considered a vessel.

Why all the definitions? Governments need to define floating homes to regulate them. States such as California, Washington and New Jersey were faced with growing numbers of floating homes using their waters as a full-time residence and no means to govern them. Land-based laws didn't apply. And federal maritime laws didn't tackle pertinent local concerns—density, zoning, water quality and provision of land-based services (trash collection, sewer and water service, police and fire protection).

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In North Carolina, a company began to manufacture and market floating homes as alternative housing along the Southeast coast. The prospect of large communities of floating homes prompted New Hanover County officials to ask the CRC, which manages coastal development, to draw up regulations.

"But before policies could be made, we had to decide who had the authority to do what," says Dave Owens, director of the Office of Coastal Management. "For example, should a floating home's sewage disposal be regulated by Coastal Management, the county sanitarian, the state Division of Health Services, DEM (the Division of Environmental Management) or the Coast Guard? There were some definitional and jurisdictional questions that had to be decided."

And some problems imposed by floating homes needed to be addressed, Owens says. Officials were concerned about water quality impacts, infringements upon public trust waters (state waters owned collectively by every citizen) and local problems with zoning and the provision of city or county services.

Water quality headed the list as the top concern. Since floating homes are considered vessels by the federal government, they must comply with U.S. Coast Guard regulations that require all vessels operating within three miles of shore to be equipped with marine sanitation devices or onboard holding tanks.

A marine sanitation device treats and grinds sewage before discharging it into the water. A holding tank stores the sewage until it can be emptied or pumped out onshore. Neither method treats or holds shower or galley effluent, called gray water, which is usually discharged directly overboard.

But state and local officials said the Coast Guard regulations were not enough. In large congregations of floating homes, treated effluent and gray water could add up to water quality problems. "Marine sanitation devices were not designed or equipped to handle waste disposal on a permanent basis," Owens says.

And then there's the matter of public trust rights. Every North Carolina citizen has a stake in the state waters, which they have a right to use, says Walter Clark, UNC Sea Grant's coastal law specialist. But do they have a right to occupy the water permanently, excluding others from its use?

The CRC held public meetings along the coast to develop a floating structure policy. After much discussion, the commission adopted a policy that became effective July 1, 1983. The policy establishes a definitional distinction between floating structures and boats and restricts the use of floating structures to permitted marinas, banning them from public trust waters.

The policy also prohibits floating structures from discharging sewage into state waters, requiring instead, use of the city/county sewage treatment system, an onshore septic tank or any other means allowed by local regulations.

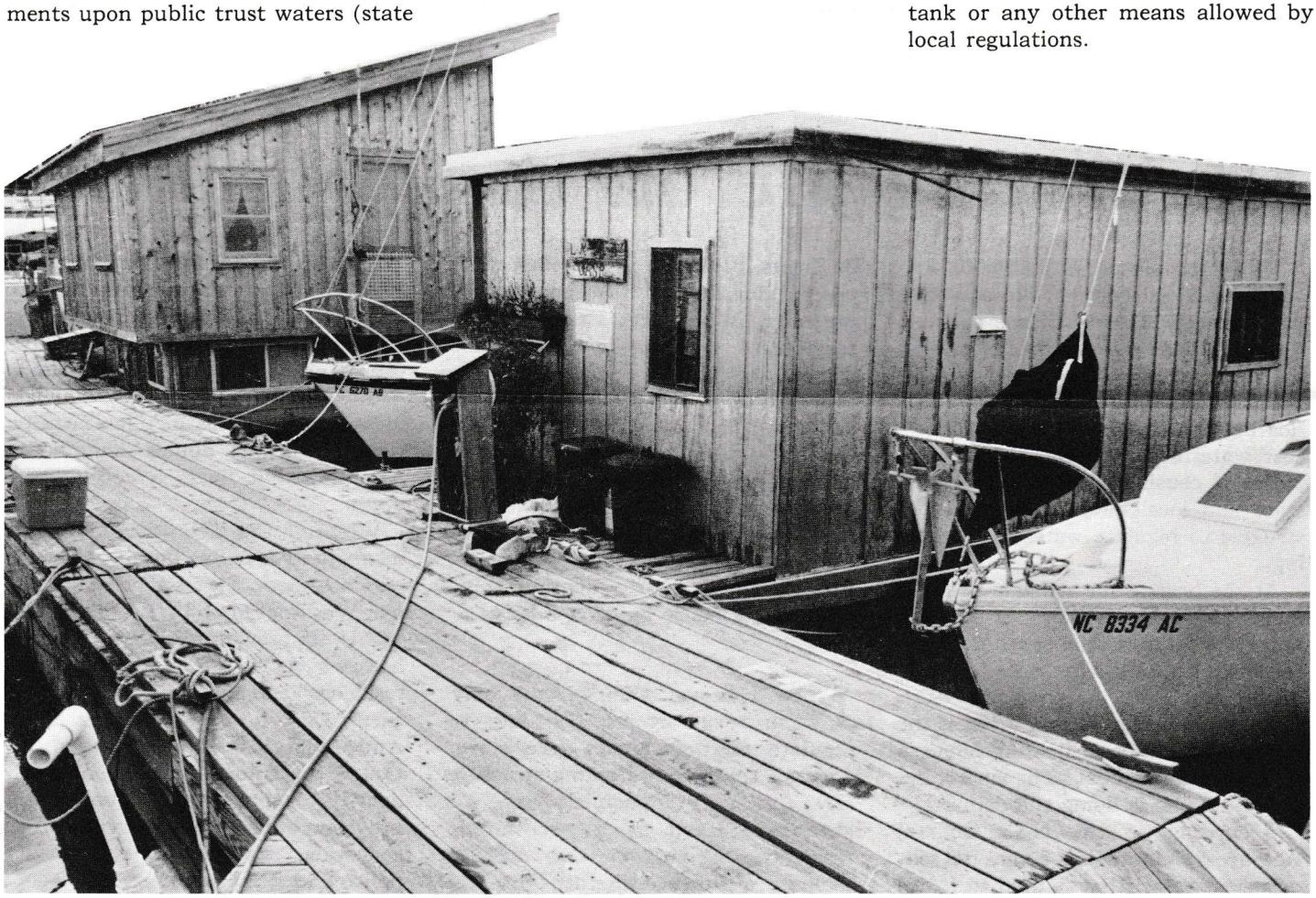


Photo by Spencer Rogers

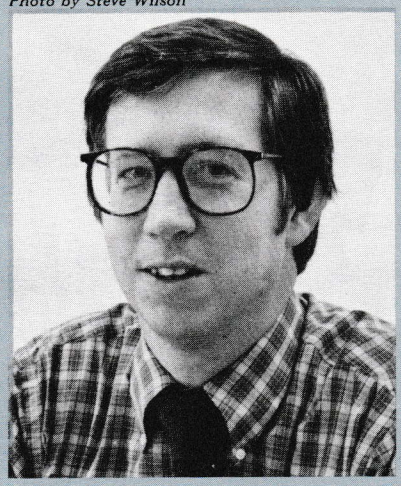
Officials are concerned about the effects of floating homes on water quality

With adoption of the policy, the CRC could exercise some control over development of floating home communities. But there is a catch. The policy does not apply to existing floating homes that have been tied up or will tie up to existing docks at existing marinas, Owens says.

"Before policies could be made, we had to decide who had the authority to do what."

—Dave Owens

Photo by Steve Wilson



The Office of Coastal Management, the enforcement arm of the CRC, regulates development through a permit system. And a marina only needs a permit if it makes a physical change such as building a dock, excavating or altering onshore facilities. Only then can the OCM ask that floating homes docking at that marina comply with CRC policies.

While some floating structures may slip through the fingers of OCM enforcement, county governments can adopt more inclusive local ordinances. And decisions are made at the county level about zoning and density requirements and the provision of city or county services.

But it falls to the N.C. Department of Administration's State Property Office to decide how state public trust waters can be used and whether the state should be compensated for that use. Presently, the SPO has no policies concerning floating homes. And officials say any SPO decisions concerning floating homes are several studies, definitions and guidelines down the road.

The SPO may have time to ponder the matter because floating home growth hasn't boomed in North Carolina as predicted. Officials warn, however, that the rising cost and decreased availability of waterfront property will eventually lead more people to buy floating homes.

But there are those who say that state and local governments may have missed the boat altogether. The sailboat, power boat and houseboat, that is. They believe more people live full time on these vessels than live on floating homes. And they pose the same kind of problems.

—Kathy Hart

The local angle:

New Hanover sets standards

New Hanover County Inspections Director S.D. "Sky" Conklin has a philosophy: It's better to respond to a potential problem than to react to one that's already there.

When Conklin heard a floating home construction business was going to locate in New Hanover County, he had visions of a waterfront crowded with floating homes. So far, that vision hasn't been realized. But if the time comes, they'll be ready, says Conklin.

In 1983, at Conklin's urging, New Hanover County became the first in the state to regulate floating homes with a local zoning ordinance. In the process, the county nudged the state into taking action.

Before the county could enact its ordinance, it had to get permission. Traditionally, local governments did not have clear authority to regulate the waters surrounding a county. Spurred by New Hanover County's desire to control development on the water, the N.C. General Assembly gave counties the explicit authority to regulate development on navigable waters within their boundaries.

Ken Silliman, assistant attorney for New Hanover County, says the choices of regulations ranged from an outright ban on floating homes to no regulation at all. Silliman said the county chose an approach somewhere in the middle of those extremes. "We're not going to say we're going to ban them (floating homes) entirely or that you can locate them anywhere. We say that you can only locate in an approved floating home marina."

The county goes even further in its regulations. The ordinance limits the density of homes in the marina. For each floating home, the marina must set aside 2,000 square feet of land and provide a minimum of two parking places to avoid placing too much stress on adjacent land. The county building inspector must approve each floating home before it is docked at the marina. And, the New Hanover County Health Department must approve the permanent water and sewer systems required on each home. (For more specific regulations, please contact New Hanover County offices.)

UNC Sea Grant coastal law specialist Walter Clark says

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Photo by Spencer Rogers

Residents must pipe all wastewater ashore

such local ordinances are an attempt to regulate people who use the water as a place to live as opposed to those who use the water for recreation.

When challenged in court, ordinances regulating floating homes have generally been upheld, says Clark. A New Jersey township went so far as to outlaw floating homes. That ordinance was recently upheld by a U.S. District Court.

Clark thinks other counties may follow New Hanover's lead. With the increased interest in floating homes, local governments are questioning their ability to provide services such as police and fire protection, water and sewer facilities, and garbage collection—all services provided through the monies collected from real property taxes. (Clark is preparing a Blueprint on floating homes to be published early next year.)

New Hanover County Commissioner Karen Gottovi doesn't think taxpayers realize that floating home owners don't pay real property taxes. To some, it sounds like a free ride. But floating home owners claim they indirectly pay property taxes. They pay a rental fee to the marina which, in turn, pays property taxes.

So far, Gottovi says public sentiment is in favor of the ordinance. She predicts New Hanover County won't be alone for long in its regulation of floating homes. "I see a potential problem particularly in the Pamlico and Albemarle and in Morehead. It's a problem people are going to have to face."

In New Hanover County, the brunt of the controversy over floating homes came to bear on Masonboro Boat Yard in Wilmington. Steve Lee, office manager at the marina, says the boat yard received a lot of attention because there were already floating homes at its docks.

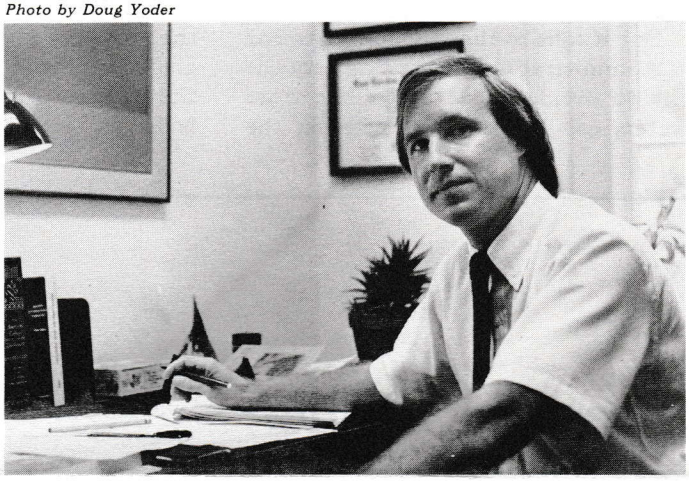
"Because the boat yard did not want to see floating homes prohibited, we worked with the New Hanover County planning board. We talked with them about the practical aspects of siting and sewage disposal. And they came up with an ordinance we could live with and the county could live with," says Lee.

At the time, seven floating homes were docked at the marina. Of those, three were on the boat yard's sewage system, two had no on-board toilet facilities and two had Coast Guard marine sanitation devices.

According to the ordinance, the latter four floating home owners have until April 2, 1985, to comply with the new standards. As of now, there have been no permits issued for floating homes or for floating home marinas. But by the April deadline, all existing floating homes must have made arrangements to pipe all their wastewater ashore.

—Nancy Davis

Photo by Doug Yoder



Walter Clark

Coastwatch is a free newsletter. If you'd like to be added to the mailing list, fill out this form and send it to Sea Grant, Box 8605, NCSU, Raleigh, N.C. 27695-8605.

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Address _____

City•State•Zip Code _____

Coastal property owner __yes __no Boat owner __yes __no

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__State government
__University professor/researcher
__Other _____

THE BACK PAGE

"The Back Page" is an update on Sea Grant activities — on research, marine education and advisory services. It's also a good place to find out about meetings, workshops and new publications. For more information on any of the projects described, contact the Sea Grant offices in Raleigh (919/737-2454). For copies of publications, write UNC Sea Grant, NCSU, Box 8605, Raleigh, N.C. 27695-8605.

Everyday, corrosion silently gnaws at materials and machines exposed to the elements. Not so quietly, however, it gnaws at the pocketbook of the economy. This year alone, corrosion will cost the United States about $150 billion.

"It's everywhere you look," says K.L. Money of The LaQue Center for Corrosion Technology, Inc., at Wrightsville Beach. Our cars, bridges, screen doors and even our hammers are affected by it. It's the job of the center to research the forces of corrosion and help find some solutions.

Money says corrosion occurs because "when we form, or make, or shape materials into alloys . . . we've altered the natural state of that material into some form that we can use. In just the laws of nature, those materials have a tendency to want to return to their natural state. Steel wants to return to iron ore, and as a result, it will have a tendency to corrode. The same thing's true with aluminum, copper-based alloy and any of the other alloy systems."

Corrosion is often confused with rust, but there's really no difference between the two, Money says. Rust is the corrosive mechanism of iron-based materials such as iron and steel.

The coastal environment, although not the worst, is highly susceptible to corrosion. "The materials used in and around the marine environment, in sea water and coastal zone areas, are seriously affected, of course, by the strong, corrosive sodium chloride, which is the main constituent of sea water," Money says.

Boat owners, coastal residents and visitors can take certain steps to retard the deterioration of their property. Boats and cars should be rinsed frequently to wash off the salt. Also, painting or coating alloy products, such as crab pots and screen doors, can help curb corrosion.

When the holidays are over, you can put your Christmas tree to another use—building a dune. Natural Christmas trees can be used to repair dunes worn down by vehicle and pedestrian traffic, says UNC Sea Grant's coastal engineer Spencer Rogers.

The tree's branches trap blowing sand, becoming the skeleton of a new dune. While Rogers says the trees can be used to repair dunes damaged by people and vehicles, they shouldn't be used to repair dunes eroded by wave action.

Each year, Sea Grant and the N.C. Marine Resources Center at Fort Fisher sponsor a dune-repair program. To participate in this year's program, bring your tree, stripped of its ornaments, to the center Jan. 1 at 2:30 p.m.

Since managing fisheries means managing people, it pays to learn something about the people being managed—their traditions, their ambitions and their abilities. That way managers can gauge how possible changes in regulations and policies will affect fishermen.

To school future managers in the ways and impacts of resource management, UNC Sea Grant Director B.J. Copeland has awarded a mini-grant to John Maiolo, chairman of East Carolina University's Department of Sociology, Anthropology and Economics. Under Maiolo's supervision, two graduate students and one undergraduate student will work with the N.C. Division of Marine Fisheries to survey a sample of the state's shrimp fishermen.

The students will analyze the information gathered and determine how different shrimp closures and season policies will affect fishermen. The Division of Marine Fisheries may use the information to reformulate policies.

Menhaden, shrimp, blue crabs and flounder consistently provide most of the value and weight of the state's commercial catch. But what about croaker, mullet or squid? Is there no economic incentive to catch these species? Or do these species have a low abundance?

Vito Blomo, an economist in the Department of Sociology, Anthropology and Economics at ECU, will attempt to answer some of these questions through a Sea Grant mini-grant. Blomo will analyze the productivity of the state's commercial fisheries to evaluate the feasibility of intensifying existing fisheries or developing new ones.

Just inches below the earth's surface in northeastern North Carolina lie the secrets of another civilization and another time. These soils are rich in the artifacts of the Algonkian Indians, who inhabited the area.

With support from UNC Sea Grant mini-grant funds and the America's Four Hundredth Anniversary Committee, Michael Orbach and Paul Green, two anthropologists in the Department of Sociology, Anthrolopology and Economics at ECU, are using these artifacts to reconstruct the lifestyle of the Algonkian Indians at the time of their contact with the English.

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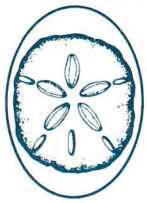
Orbach and Green are examining stone and bone tools, pottery pieces, arrowheads and food remains from an area along the Chowan River, which they believe to be the Algonkian village Chowanoke. Next year they plan to locate the village of Pomeiooc, which artist John White (governor of the Lost Colony) depicted near Lake Mattamuskeet on one of his maps.



Lise Knelson is one of 14 students from across the country who has been awarded a Sea Grant internship in Washington, D.C., next year. Knelson, the 1983 recipient of the North Carolina Sea Grant Marine Policy Fellowship, will serve with a House or Senate committee in Congress.

Knelson is a zoology graduate from the University of North Carolina in Chapel Hill and a graduate student at East Carolina University in sociology. Her graduate work emphasizes marine policy.

Sea Grant Director B.J. Copeland and Bill Queen, coordinator of Sea Grant's estuarine studies, are the principal investigators in a project for the National Oceanic and Atmospheric Administration's Sanctuaries Program Division. Copeland and Queen will be developing priorities for research in the nation's estuarine sanctuaries.

The investigators will assemble a team of the nation's outstanding estuarine researchers to help them devise approaches for relating management issues to research requirements. Among the goals of the project is to encourage the use of estuarine sanctuaries for research sites.

In 1983, nearly 60,000 pairs of waterbirds nested along North Carolina's coast. Over 75 percent of those birds made their homes on man-made dredge-spoil islands. But the number of sites suitable for the birds is declining while the size of the colonies is increasing. With such large concentrations of birds in a small number of sites, biologists fear a single catastrophic event, such as an epidemic, could mean disaster for a large percentage of birds.

Using Sea Grant mini-grant funds, James Parnell, an ornithologist at the University of North Carolina at Wilmington, will develop a comprehensive management plan for the colonial waterbirds in the state's coastal zone. Parnell will outline the management needs of each species and identify techniques for population monitoring and for maintaining appropriate habitats for each species.

North Carolina's seafood industry cooked up some good business in Raleigh Oct. 30 and 31. That's when Gary Van Housen, UNC Sea Grant's regional marine specialist, participated in Foodservice Frontiers '84, an expo for the institutional food service market.

For the two-day event, Van Housen exhibited seafood and handed out pamphlets, recipes and advice on using North Carolina's fish products. While onlookers gazed at fresh snapper, scallops, oysters and a live soft shell crab, Van Housen answered their questions about seafood and the Sea Grant Program.

He said he hoped to promote seafood among the institutional buyers at the expo, and to help people learn more about seafood.

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