

# COAST WATCH

Photo by Jim Erickson



*Cyclist and shadow pedal in harmony along coastal North Carolina*

## A pedal-powered excursion to sun, sand and scenery

By Kathy Hart

From my left, the ocean crashes against the sand. From my right a bird wails in the marsh. Ahead of me, a flat, two-lane highway weaves between the sandy dunes and the grassy marsh. On my face are the spring sun and gusts of ocean air. Beneath me is my bicycle. I am bicycling through the Pea Island Wildlife Refuge, caught up in the scenery, my own thoughts and the

cadence of my pedaling. I'm glad I'm not in a car.

Before today, I had never spent more than hour at a time on a bike. But now, I'm touring the Outer Banks along N.C. 12 from the Herbert C. Bonner Bridge to Buxton, 40 miles.

The first few miles were spent finding a good, steady pace that kept us together, getting into a gear that gave us the right combination of pedaling and gliding, and adjusting to a

steady stream of traffic.

We stopped soon to adjust our seats and handlebars. We had brought along an array of tools, including enough bug repellent to ward off an army of skeeters. Right away the first scouting party was taking taste samples from my arms and legs.

As we pedal through the refuge, I shout to my friends, as an egret rises

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from the marsh, looking like a flake of snow against the blue sky. A mile or so farther, a pair of gray-brown ducks glide along a marsh pond in seemingly effortless motion. Nearby, some red cedars become animated after a flock of birds fill their branches with motion and sound. I cycle on.

At spots on the refuge, I can see clear across Hatteras Island, from the beach dunes to Pamlico Sound, about a quarter of a mile. The ocean has only to surmount an eight-foot dune and sidle across the marsh for the two waters to meet. That's exactly what has happened, during big storms. I cycle on.

We stop for rest and a snack in Rodanthe. Upon dismounting from my bike, my knees wobble, unsure that they can support the weight of my body. I am quickly realizing those 30- and 40-minute spins around the neighborhood weren't enough conditioning for this trip.

Soon after our pit stop, we pass the Chicamacomico Coast Guard Station. Abandoned years ago, the buildings are weathered gray. Some of the coast's most daring shipwreck rescues were made by men stationed here. Area residents are raising money to restore the old station.

Once by Rodanthe, Waves and Salvo, we again leave the billboards, motels, and convenience stores behind as we enter the Cape Hatteras

National Seashore. The gentle morning breeze now turns mean as it briskly whips by us, slowing our pace. No longer can we pedal, g-l-i-d-e, pedal, g-l-i-d-e. It's now just pedal, pedal, pedal . . . . After only a few miles, we must stop to rest and plan a strategy against the wind. We decide to stay close together in a single-file line, so the front rider can knock off some of the wind from those behind. We will take turns leading the caravan.

Our plan helps some, but every inch forward requires maximum effort. I tell myself, make it to the next telephone pole, the next, then the next . . .

Finally, I see the black candy-striped Cape Hatteras Lighthouse. Buxton is near and the last bit of adrenaline flows for the push into town. I use the old lighthouse to gauge my distance to Buxton, much as the navigators long ago used it to gauge their distance from the cape.

We arrive. Famished, we head for the nearest hamburger joint to quiet our growling bellies. We explore the lighthouse and the beach—on foot. The lighthouse stands haughtily at the dune's edge. The encroaching sea is threatening to topple the lighthouse, which has stood here for 110 years. On the beach, a few fishermen are still casting their lines in the late afternoon surf. They tell us today's catch has been poor. Beyond the fishermen,

there is only sand, surf, dunes and solitude.

We splurge on a hearty seafood dinner, hoping the treat will appease our aching bodies. But I have serious doubts that anything can revive me for the return trip.

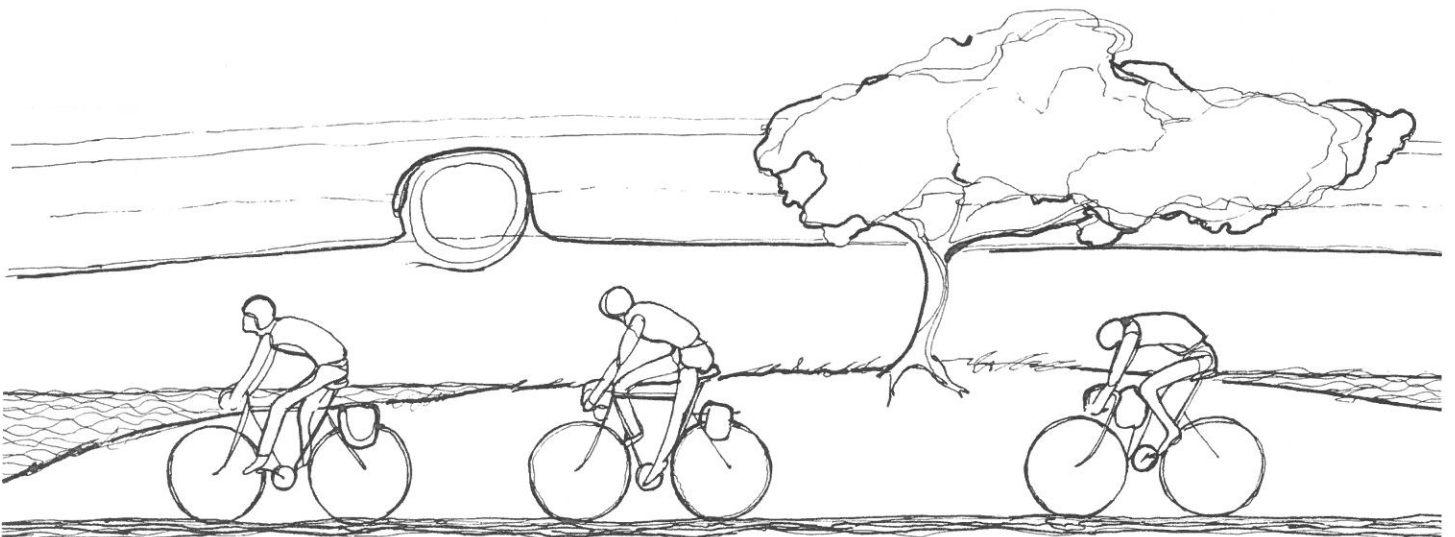
A night's sleep can do wonders. After breakfast and a stretching exercise or two, we whip out onto the road. The breeze is at our backs today and we glide along like sailboats over water. I'm ready to see the trip through.

The wind that confined us yesterday gives us freedom today. Sometimes I cycle ahead of my companions, other times I lag behind. I pull ahead at one point to take pictures as they pass.

Back on the road, I hear a car honk from behind. I move to the far right of the lane to allow a wide berth for passage. But my ears quickly tell me that this vehicle sounds very loud because it is too close. I move farther to the right and balance precariously on the edge of the road. Even then, the vehicle passes within a foot of me and my cycle. The bike waivers in the draft the car creates. Frightened, I fight to keep control of my bike, but my fright gives away to anger at the driver, who has nearly bullied me off the road.

We are in Salvo only an hour and a half after we left Buxton. It's hard to believe it took me three leg-numbing hours to cover the same distance yesterday. We snack and rest in

*Illustration by Neil Caudle*



*Pedal, pedal, pedal against the wind*

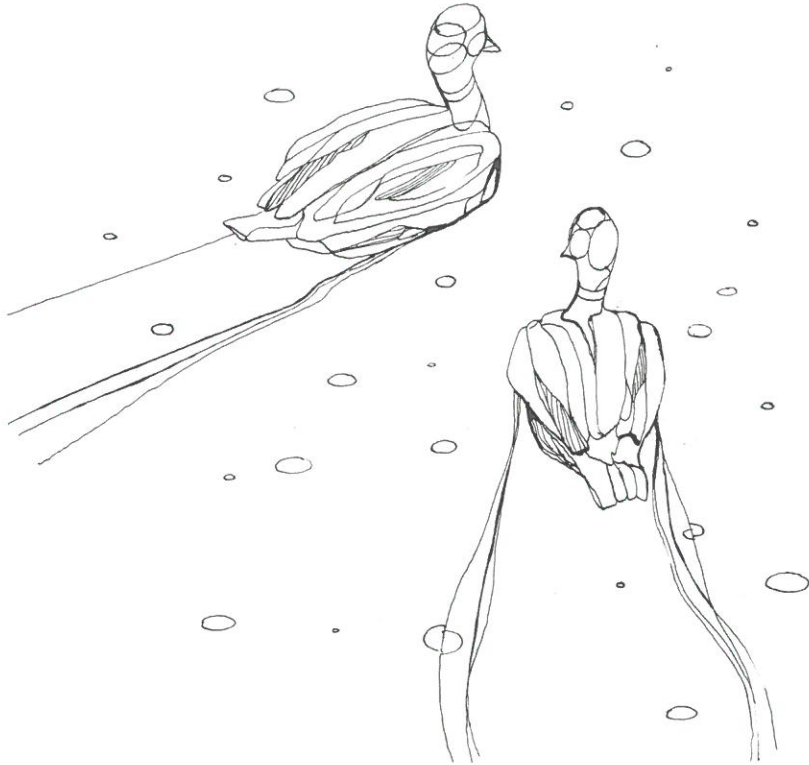
Rodanthe before our final leg back.

The clouds have been thickening all morning. On the air I smell the earthy odor of wet ground, only here in the marsh it has a saltier, fishy smell. The first drops of rain splatter my arms and legs. I decide not to bother with rain gear, since I'm only about eight miles from the car. Besides, the lukewarm raindrops feel good to my sunburned arms and legs. The rain must be keeping the marsh birds in the red cedars and wax myrtles today because I have seen little activity. Only a couple of ducks have waddled to a pond for a swim in the rain.

I am alone. My two friends have cycled ahead. I hope they wouldn't get the car and come after me. I want to make it all the way back. It is a matter of pride.

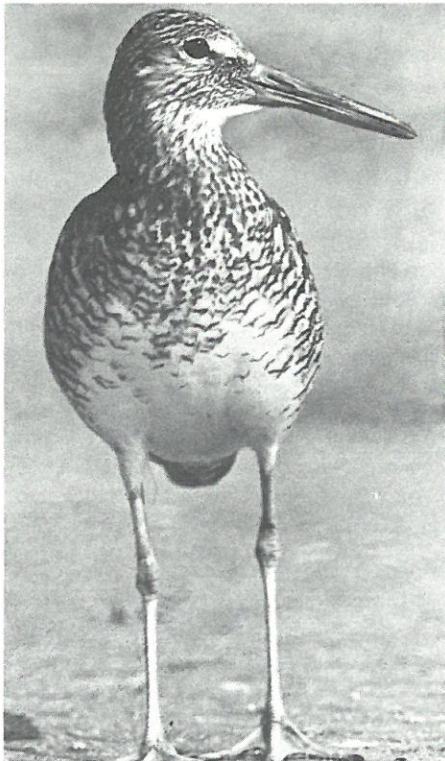
The arched span of the bridge looms just ahead as I wheel into the parking lot where we left the car. I made it. But more than that feeling of accomplishment, I keep thinking of that moment when I first felt the wind at my back and suddenly pedaling became effortless. This time the wind was taking me for a ride.

Illustration by Neil Caudle



Two ducks swimming in the rain

Photo by J. Foster Scott



You're more likely to hear this long-legged eastern willet than see him.

## Ready to make your own trip?

Bicycling can be a good way to see, feel, hear and even smell coastal North Carolina. But before you head for your garage to dust off your bike, there are a few things you need to know.

- Spring and fall are the best seasons for biking at the coast. Roads are less traveled then and temperatures are moderate. If you want to travel this fall, it's not too early to start planning.

- Decide on a route. It's best to travel less-used, two-lane roads. (Remember that bicycles are prohibited from all interstate and limited access highways by law.) The N.C. Department of Transportation's Bicycle Program offers detailed maps for one coastal route and several inland routes. The coastal route winds through historic Edenton and Bath, to New Bern and along the coast from Swansboro to the South Carolina line. To contact the bicycle program write: N.C. Department of Transportation, Bicycle Program, P. O. Box 25201, Raleigh, NC 27611; or call,

(919) 733-2804.

- Beware of the wind. Experienced bikers may find the wind challenging. Beginners should make their first trip with the wind at their backs. In the spring and summer, southeasterlies and southerlies prevail along the coast. Northerlies and northeasterlies become predominant by September. Keep in mind that morning winds are apt to be calm and light, but pick up velocity in the afternoon.

- Plan for rain. Mudguards and fenders will keep the wheels from splattering your back and feet with water and mud. A large rain cape, designed especially for bikers, will keep you and parts of your cycle dry. Be careful when it rains. Less traction between the wheel and the road can cause a fall. And, bike brakes, like car brakes, don't stop your cycle as quickly on wet surfaces.

Biking in the rain is one thing, but thunderstorms packing thunder,

*Continued on next page*



*Pedaling against the wind on Ocracoke Island*



*Toe clips*



*Water bottle*

lightning, high winds and heavy rains are a different matter. Get off the road and seek shelter during such a storm, if possible. Driving rains can decrease your own visibility, and that of motorists.

- Don't forget the sun. Protect yourself with lotions, clothing and hats. And remember, even on cloudy days, radiation can toast your skin.

- Think about where you'll sleep. For novice bikers, a soft bed feels awfully good to sore muscles. Also, you'll have easier pedaling if you're not

carrying camping equipment. But once you've built up your muscles and your endurance, camping can enhance a biking experience. Camping areas are plentiful along the North Carolina coast. Check with the bicycle program or parks service to see what is available.

- Stash away a few snacks. Choose foods high in carbohydrates and potassium, such as bananas, pears or peanut butter. To quench your thirst along the way, carry a plastic bottle filled with water, weak tea or

water laced with sugar. These bottles are handily attached to your frame.

- Get in shape. Begin to get yourself in condition at least 30 days before your trip. It's a good idea to check with your doctor before undertaking an exercise program, especially if you're over 30 or have a history of health problems. Do your conditioning gradually. Start out biking slowly, two or four miles several times a week, and build yourself up to a faster pace and longer distances. The bicycle program distributes a pamphlet, "Getting in Shape for Bicycle Touring," that offers a conditioning schedule and other advice.

- Check out your bike. Have your brake pads changed, the brake and gear cables checked, and your tires inflated to proper pressures. It's a good idea to have toe clips placed on your pedals. They keep your feet from sliding off your pedals and they allow you to pull up with one foot, while you're pushing down with the other. This can increase your biking efficiency 40 percent.

You don't have to have an elaborate touring bike to cycle at the coast. The flat terrain lends itself well to three-speed and single-speed bikes. But for long distances and varied terrain, a 10- or 15-speed touring bike is necessary.

If you're going to buy a bike, do a little research at the library and bike shops to see what type of bike best fits your needs. Also, be sure the cycle is the right size for your body frame. Good bikes are expensive these days, so be ready to make a sizeable investment if you plan to buy a new bicycle.

- Pack lightly. Take only necessities. You can buy bike bags or rig your own. Pack brightly colored clothes that are interchangeable. Bright colors are more visible to motorists. Roll your clothes to minimize wrinkling and place them in plastic bags to prevent them from becoming damp. Be sure to pack a set of bicycle tools. Carry a bike pump and tubing in case of a flat tire.

- Watch out for motorists. Some drivers are courteous, but others are not. Ride in the right lane and use those hand signals you learned in driver's education to indicate turns. Listen for approaching traffic and move as far to the right as possible as cars pass. North Carolina law treats bicycles like any other vehicles. Cyclists have the same rights and responsibilities as motorists.

# Exploring the coastal backwaters by canoe

Cypress dripping with Spanish moss, a Venus' flytrap closing on a unsuspecting insect, a river otter sliding down a river bank. . . Nature has tucked away a lot of fine secrets along coastal North Carolina's rivers and streams. The best way to discover them? In a canoe.

"What I like best about canoeing is that feeling of isolation," says John Anema, an avid canoeist and a member of the Greenville Sierra Club. "You're away from everything. For me, it's therapy no doctor could ever provide.

"The quietness is great too. You make so little noise in a canoe that you blend in and animals hardly ever notice you. You see lots of wildlife that way."

Anema says one of his most exciting canoeing experiences came last month as he canoed Lake Mattaponi in Virginia. He saw two bald-eagles perched in a tree. "It was just a very majestic experience that I can't find the words to express," he says.

You might not see bald eagles in North Carolina, but you can see bobcats, river otter, muskrats, mink, deer, beaver, various waterfowl, alligators and snakes, most of which are non-poisonous.

Cecil Frost, a ranger for the Merchant's Millpond State Park in Gates County, says the stories of snakes dropping from trees into canoes are exaggerated.

Frost says nonpoisonous water snakes do sun themselves in trees and bushes, and if startled, will drop. "But it's not like there are snakes hanging from every tree and bush," he says with a chuckle. "I've only had one to drop in my canoe in four years."

Poisonous water moccasins are not tree hangers, but instead, sun themselves coiled on logs in the river, Frost says. "What you have to remember is that most creatures are as scared of you as you are of them," he says.

If wildlife isn't your forte, then the coast abounds in unusual plant life. In the Croatan National Forest, you can find carnivorous plants such as Venus' flytraps, sundews and pitcher plants. Along the banks of Merchant's Millpond, you can see six species of rare wetland plants, such as water crowfoot and featherfoil, as well as more com-

mon plants, water lilies and swamp roses.

Most canoeists seem to agree that Merchant's Millpond is the most scenic area to canoe in coastal North Carolina. The 170-year-old millpond is surrounded by virgin cypress trees draped with Spanish moss. Canoes can be rented from the state park ranger for 75 cents an hour or \$4 a day. A primitive camp on the millpond can be used for canoe camping. But, Frost warns, you must take everything you need in with you, and bring everything out.

The canoe trip through the pond is about five miles long. And, it's best to check with the state park ranger for a canoe route through the pond. Otherwise, you may get lost. If you're looking for a longer trip, you can canoe from the millpond down Bennett's Creek through the Chowan Swamp, about 20 miles. Frost says this is also a very scenic route.

Other good rivers for canoeing in eastern North Carolina are the White Oak River in Jones County, the Northeast Cape Fear and South Rivers in Pender County, the Black River in Bladen County and the Waccamaw River in Columbus and Brunswick Counties.

Moulton Avery, director of the Carolina Wilderness Institute, an organization specializing in wilderness training, suggests that beginning and less-skilled canoeists avoid canoeing in wide rivers or river mouths. "If you're canoeing in these areas and a wind blows up, it can cause a lot of wave action that can capsize your canoe," he says.

Also, many coastal rivers wind through remote areas and Avery suggests canoeists have some wilderness experience or training before attempting to canoe or camp.

*Continued on next page*

*Photo by Carolina Wilderness Institute*



*Spanish moss drapes the cypress at Merchant's Millpond*



*Canoeists discover the solitude and beauty of Merchant's Millpond*

As with bicycling, canoeists should plan their trips in advance. Avery says county maps, obtainable from the North Carolina Department of Transportation, are the best maps to use for planning a canoe trip. "These maps show where bridges are," he says. "Most canoe trips are oriented around bridges because they are easy access points to the river."

Frank Held of the Carolina Canoe Club, says canoeists should not be too ambitious when they estimate how far they can canoe. "A beginning canoeist can probably canoe eight miles a day, while a more experienced one can make about 12 miles," he says.

Canoeing can be a year-round activity. Frost suggests canoeing the Merchant's Millpond in May to early June, when many of the swamp flowers are blossoming, or in mid-October to early November when the cypress flame rusty orange and the red maples blaze.

"A river can look different every time you canoe it," says Dave Bennie, outing chairman for the Cape Fear Sierra Club. "When the water's high in the spring, a river runs faster and you can see over the bank, but in the summer when things start to dry up, the same river can be low in its bank and almost stagnant, like a swamp."

Many canoeists even enjoy winter

canoeing. "Every time it snows I put my canoe in the water," Anema says. "The snow hanging in the trees and covering the bank gives the river a whole different look. It's elegant."

If you're interested in canoeing, you should learn some basic canoeing strokes and some water safety measures. The Carolina Wilderness Institute (P.O. Box 22102, Greensboro, N.C. 27420) and the Carolina Canoe Club (P.O. Box 9011, Greensboro, N.C. 27408) teach courses and seminars on canoeing techniques. The Sierra Clubs in Greenville and Wilmington offer regular coastal canoe trips along with some basic instruction. Also, the American Red Cross publishes a book about canoeing and canoe safety.

Held suggests a beginning canoeist always make his or her first trip with other experienced canoeists who know how and where to canoe. If you want to give canoeing a try, you can rent canoes from trail and canoe shops. But if you want to buy a canoe, plan to spend \$250 to \$1000, depending on quality and preference.

"Canoeing is increasing in popularity," Frost says. "It's the economical way to go. You can cover five or ten miles in a day, see lots of great sights and never worry about where the next gas pump is."

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A few canoeing do's and don'ts can make your canoeing trip a lot safer and more enjoyable. Experienced canoeists say:

- Do wear a life jacket or other flotation device at all times.
  - Don't overload your canoe. Two adults per canoe is plenty.
  - Do carry a set of extra clothes wrapped in a plastic bag. You may need dry clothes if your canoe turns over.
  - Don't canoe alone unless you're very experienced.
  - Do map out a route for your trip and stick to it once you're on the water. It's easier to make a wrong turn on the river than it is on a highway, if you don't know where you're going.
  - Don't canoe flooded rivers or streams. Hidden debris and strong currents can capsize your canoe.
  - Do make canoeing a family activity. Canoeing is a good way for children to learn about nature. But plan shorter trips when you have children along.
  - Don't brush against bushes or trees. Bees and hornets frequently make their homes there.
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# 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 and workshops and new publications. For more information on any of the projects described, contact the Sea Grant office in Raleigh (919/737-2454).



It sounded like a tall tale: Some oysters in North Carolina were growing five inches in one year. Growth spurt, nothing—that's practically an explosion.

Fishermen had noticed for years that oysters in Slash Creek near Cape Hatteras were the biggest oysters around. The stories puzzled Hughes Tillet, a Sea Grant marine advisory agent in Manteo. Tillet found some oyster spat, babies not much bigger than BBs, and set them out in trays in Slash Creek. Boom. The oysters grew so fast that Tillet had to struggle to keep them from smothering each other. The average oyster takes about two years to get big enough for harvesting. Tillet's oysters were that large in one year.

What was Slash Creek doing for those oysters? Tillet packed up some samples and took them to Glenn Patterson, a biologist at the University of Maryland. Patterson was examining oysters for sterols, key substances (including cholesterol) that influence growth and other bodily activities.

Patterson found the same sterols in the Slash Creek oysters that he'd found in "normal" oysters up and down the East Coast. But there was one dramatic difference. The robust oysters had twice the amounts of each kind of sterol.

Patterson suspects that something in Slash Creek's food supply is chocking oysters full of sterols. And the sterols, he believes, may be behind the rapid growth.

Are the Slash Creek oysters freaks? Maybe, but Patterson offers another explanation. It's possible, he says, that widespread changes in the environment have all but wiped out some of the oyster's preferred foods, leaving only a few places, like Slash Creek, where an oyster can get a decent meal.

"Maybe the Slash Creek oysters are the normal ones," Patterson says. "The rest might just be a stunted version of what oysters used to be."

With more research, Patterson believes that scientists may learn how to give the typical oyster the same robust good health that Hughes Tillet's oysters found in Slash Creek.

UNC Sea Grant has received 39 proposals for research and education projects for the 1981-1982 funding cycle. The proposals are being reviewed to see which ones will be the most helpful in answering some existing or anticipated problems or needs. The proposals that are chosen as most promising will be included in the UNC Sea Grant proposal to the National Sea Grant Program office in Washington, D.C., for possible funding.



When fishermen hang their nets on shipwrecks, rocks or coral, they often lose more than just the time it takes to free their gear. Each "hang" can cost a fisherman thousands of dollars in torn nets and damaged equipment.

Hughes Tillet, one of Sea Grant's marine advisory agents in Manteo, has put together an updated version of an earlier Sea Grant publication, *Hangs and Obstructions to Trawl Fishing*, which Tillet also helped compile for North Carolina, South Carolina and Georgia. The new hang log covers the offshore waters of the entire Atlantic Coast of the U.S., and pinpoints the hangs using both Loran A and Loran C bearings. The book is

designed to be used by professionals with Loran equipment.

In gathering information for the project, which was directed by James McGee of East Carolina University, Tillet interviewed trawl fishermen and combed their logs for records of hangs.

The new hang log, Tillet believes, will help save commercial fishermen thousands of dollars each year by giving them a more accurate "map" of hangs and obstructions.

Navigators can receive a copy of *Hangs and Obstructions to Trawl Fishing* by writing to Hughes Tillet, Marine Advisory Services, N.C. Marine Resources Center, P. O. Box 699, Manteo, N.C. 27954.



Last year's surf fishing class for youngsters was so popular that Jim Bahen, a Sea Grant advisory agent in the Wilmington area, will be holding several sessions again this year for girls and boys, ages 8 to 12. In the classes, Bahen will instruct his young students on how to do everything from baiting the hook to reeling in the fish.

The sessions will be held June 12, 17, 19, 24 and 26 at Wrightsville Beach. The morning classes will run from 8:30 a.m. until noon and the afternoon classes will last from 1:30 to 4:30 p.m. There will be ten students per session and registration is required.

Sponsored by UNC Sea Grant and a Wrightsville Beach sporting goods store, the sessions will end with a fishing tournament in which youngsters from all the classes can fish for prizes. For registration information, call the Sea Grant marine advisory services office at Ft. Fisher, 458-5498.

Bahen's not the only Sea Grant agent teaching folks how to cast a line,

*Continued on next page*

Dennis Regan, an advisory agent on Roanoke Island, is also teaching fishing classes each Wednesday from June 25 to August 7. Regan will demonstrate pier fishing from 9 to 11 a.m. in Nags Head, and from 2 to 4 p.m. he will teach surf fishing at the Marine Resources Center in Manteo. For more information, call 473-3937.



From the decks of the *Crystal Dawn*, about 50 people ood, ahned and clicked their cameras as they watched loggerhead turtles, hammerhead sharks, laughing gulls and a large school of bluefish. The occasion was a marine mammal and bird cruise, which embarked April 19 from Manteo. The cruise was organized by Dennis Regan, a Sea Grant marine advisory agent on Roanoke Island.

On board to help identify the mammals and birds sighted were Guy Oliver, a marine mammals expert, and David Lee, a bird and mammal specialist with the N.C. Museum of Natural History.

Everyone had hoped to spot whales on their annual trek from southern to northern waters, but the giant creatures didn't make an appearance. Instead, onlookers were entertained by a tern taking a leisurely ride on a loggerhead turtle, and by the playful antics of a school of porpoises.

Regan says he is planning a similar cruise for the fall.



Pound nets set in the sounds near Roanoke Island usually catch catfish, striped bass and shad, but this summer, one pound net will be catching people. Set up as a new exhibit at the N.C. Marine Resources Center on Roanoke Island, a 24-square-foot pound net has been hung so folks can walk into the net to see how it's made and how it works. Along with the net will be pictures and descriptions telling its history, how it's built and what it catches. Set up by Dale Martin and Hughes Tillet, the pound net is part of a larger exhibit funded by Sea Grant and the Office of Marine Affairs. The exhibit will explain the importance of net fishing in North Carolina.



Coastal Indians once shopped the marshes and swamps for seasonal wild plants that few people think of as edible: poke leaves, cattails, salt wort and prickly pear cactus.

These were also some of the wild plants on the bill of fare during Wild Foods Weekend, held at the N.C. Marine Resources Center at Ft. Fisher, June 13, 14 and 15.

Wild foods experts taught participants how to identify, pick, prepare and eat some of the wild, edible foods found along the North Carolina coast. Sea Grant agent Jim Bahen showed one group of foragers how to catch a

meal from the sea, while Bob Hines, the Sea Grant agent at Bogue Banks, taught participants how to catch, clean and prepare eels.

## I want Coastwatch

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