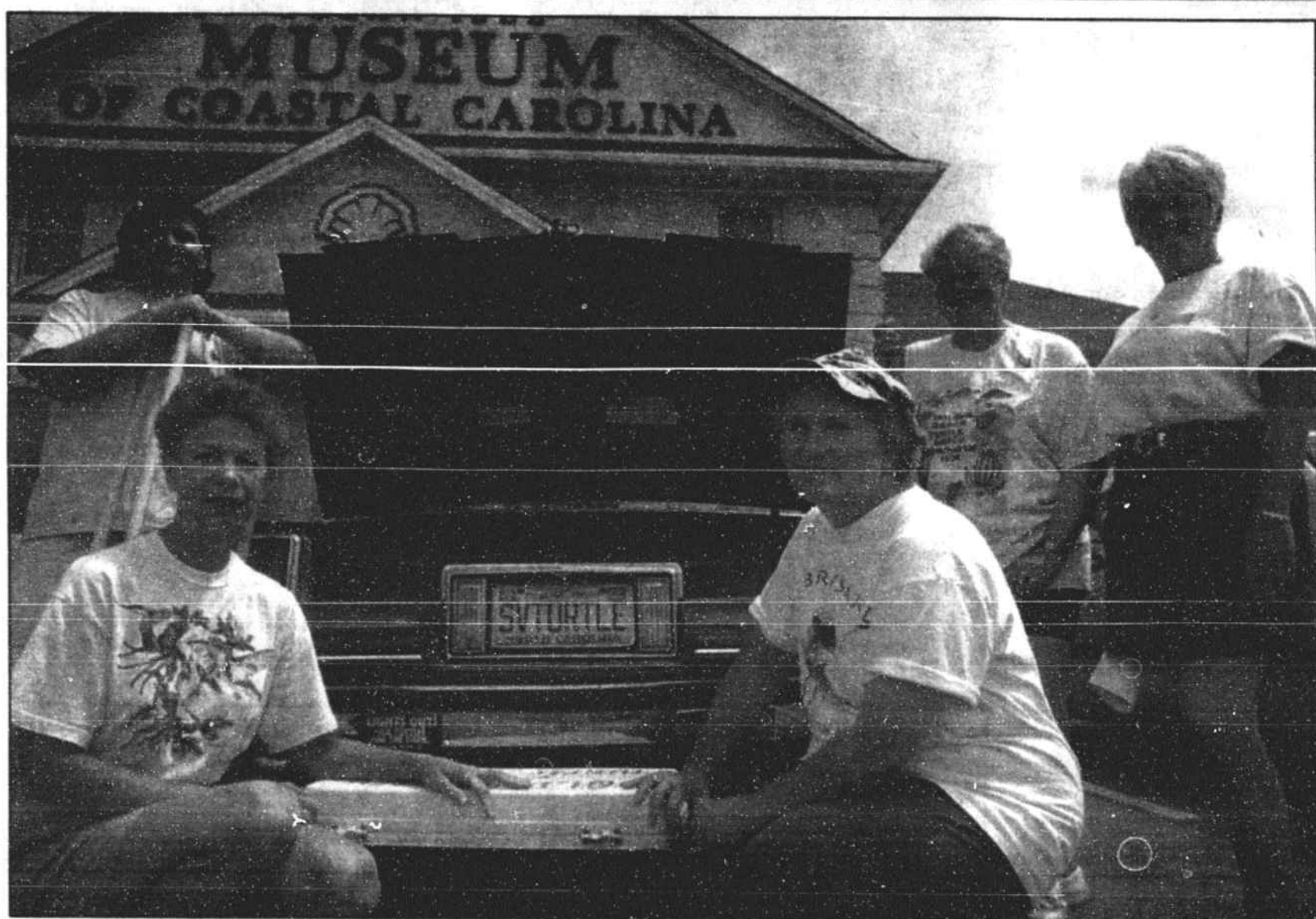


PHOTOS CONTRIBUTED
A MOTHER LOGGERHEAD turtle (in photo above) makes her way out of the surf at Holden Beach to dig a nest and bury her eggs in the sand. Below, hatchling turtles, just minutes after emerging from their buried eggs, crawl along a trench dug by Turtle Watch volunteers to help guide them toward the sea.



STAFF PHOTO BY ERIC CARLSON
VOLUNTEERS with the Brunswick County Parks and Recreation Department's "Turtle Watch" program pose with the cooler and digging implements they use to move threatened sea turtle nests. Shown (from left) are Tracy Spencer, Kathy Kakos, Minnie Hunt, Judy Brian and Gloria Hillenburg.

Volunteers Make The Turtle Watch Program Work

BY ERIC CARLSON

Tracy Spencer, a teacher at Supply Elementary School, will never forget the night he caught turtle fever. Spencer was working a summer job at an Ocean Isle Beach restaurant one night when some friends came in covered with sand. When he asked what they had been doing, he heard about the volunteers who stand watch along Brunswick Island beaches during hatching season to help threatened and endangered sea turtles make their first mad dash from their nest to the sea.

As a boy growing up in Missouri, Spencer had always been fascinated by turtles. His grandfather, a Cherokee Indian, once told him the legend of how the world grew from a grain of sand on a turtle's back. Spencer has fond memories of mucking around in streams and marshes, watching the activities of these peaceful armored reptiles.

Consequently, he jumped at the chance to join his friends in their seaside adventure.

"The next night I went with them," Spencer said. "I got to see a hatch the first time out—which is extremely unusual. After that I was addicted!"

Nowadays in the summer Spencer spends nearly all his waking moments—sometimes 18 hours a day—doing what he can to improve the survival chances of the sea turtles who nest and hatch each year along our beaches. He is one of the scores of dedicated volunteers who work with the Brunswick County Parks and Recreation Department "Turtle Watch" program.

Beginning in May, Spencer walks the strand at Ocean Isle Beach each morning, looking for "crawls," the tell-tale tracks left by female turtles as they crawl up from the surf to lay their eggs. Other volunteers do likewise on all the Brunswick beaches, some on foot and others aboard small all-terrain vehicles.

The landward end of these easily recognized tracks is carefully examined to determine whether the mother turtle has actually left a nest or turned back, leaving a "false crawl." If a nest of eggs has been left in a bad spot—too close to high tide or in a heavily trafficked area—the hundred or so ping-pong-ball sized eggs are carefully dug up and reburied in a safer spot.

The location of each nest is carefully recorded and hopefully "adopted" by a host volunteer. Then, after about 50 days, the vigils begin. Groups of turtle watchers stay near the nest each night until they spot a "boil," the frenzied emergence of baby sea turtles poking their way through the sand's surface.

"Loggerheads sometimes ingest plastic bags, mistaking the floating trash for a jellyfish. The bags can lodge in the digestive tract of a turtle, preventing normal movement of food; the turtle may die of starvation. The danger trash presents to Loggerheads is another reason humans must learn not to throw trash into the sea."

"It is a sad commentary on our civilization that these magnificent and benign turtle species are endangered or threatened. The decrease in turtle populations is clearly man's doing...Baby turtles and turtle nests are run over by all-terrain vehicles. And, finally, artificial lighting near nesting beaches disorients baby turtles, causing them to head landward instead of seaward."

"Sea turtle populations are

declining. Loggerheads have been classified as threatened (not endangered) since 1976; as such, they remain protected by law (Endangered Species Act) and should not be disturbed on the beach.

"Some individuals believe that the loss of sea turtles and other species is the inevitable result of progress. This concept of progress is short-sighted; we know little about long-term consequences to life on earth with the continuing extinction of species. Each species of plant or animal has its own niche in nature; when a species is removed, the effect on the whole ecosystem may be profound, and man may suffer in the end."

—Excerpted from *Nature Guide to the Carolina Coast* by Peter Mayer

Word of a hatch quickly spreads, often attracting hundreds of curious onlookers. Because the hatchlings are sometimes confused and extremely vulnerable to predators, volunteers dig a trench from the nest to the water's edge and shepherd the baby turtles toward the relative safety of deep water.

All of which is standard operating procedure for veterans of the Turtle Watch program who coordinate protection efforts on their home beaches. Not surprisingly, each of these women is more than a "turtle person," volunteering their time and energy to numerous other com-

munity projects.

Besides keeping watch on turtles and their volunteer protectors at Holden Beach, Judy Brian is an active member of the town's beautification committee and a member of the Coastline Volunteer Rescue Squad.

Gloria Hillenburg has been keeping informal records of sea turtle activities on Ocean Isle Beach for 10 years, long before there was an official Turtle Watch program. She also volunteers her time at the island's Museum of Coastal Carolina and helps collect contributions for the Hope Harbor Home domestic violence shelter.

On busy Sunset Beach and pristine (for now) Bird Island, community activist Minnie Hunt coordinates the turtle watch volunteers. But she is also a leader of the Bird Island Preservation Society and an active board member of the N.C. Coastal Federation and the N.C. Land Trust.

"That's about all I do these days," says Hunt, who was accustomed to working round-the-clock as a computer specialist before "retiring" to the equally demanding arena of volunteer environmental work.

Kathy Kakos, like Spencer, is typical of the newer Turtle Watch volunteers. A former resident of New York State's Hudson River shoreline, she moved to Brunswick County in May 1990. After reading about turtle protection efforts in the *Beacon*, Kakos joined the program the following month and has become what Hunt calls "an essential member of the Sunset Beach team."

Her volunteer spirit has spread to other areas. Nowadays Kakos says she "practically lives at the Museum of Coastal Carolina," where she helps out at the front desk and conducts tours for visiting school groups.

Coordinating all those coordinators is Brunswick Parks and Recreation specialist Tina Pritchard, who organized the county's Turtle Watch program in 1989 after supervising a similar effort on Oak Island the previous year. While she regularly earns praise for her work with turtles, this year Pritchard received special recognition for managing the people who make the program happen.

Next month, Pritchard will fly to Las Vegas, Nev., to accept the National Association of Counties' Annual Achievement Award for organizing what it considers to be the top volunteer program in the country.

But when you ask her about it, Pritchard will quickly brush aside the praise and say that more volunteer help is still needed—especially folks willing to "adopt" one of the more than 230 sea turtle nests getting ready to hatch between Oak Island and Bird Island.

So if you want to get involved in one of the true wonders of nature, why not become a turtle watcher? You may find a new excuse to walk the beach every morning.

Those interested in the Turtle Watch program can call Brian on Holden Beach at 842-7242, Hillenburg on Ocean Isle Beach at 579-9513 or Hunt on Sunset Beach at 579-2124. Tina Pritchard can be reached through the Brunswick County Parks and Recreation Department at 253-4357.

HOME OF ANCESTRAL LAND LIFE

The Important Intertidal Zone

BY BILL FAVER

Most of us think about the "beach" as the smooth area between the sand dunes and the water. This is where most of us lie in the sun, play with a Frisbee, build sand castles, look for shells or enjoy a brisk walk.

The beach is more than this, though. We have three distinct zones known as the subtidal zone, the intertidal zone and the supratidal zone.

The subtidal zone is that area of the beach always covered by water. Organisms in this zone cannot survive if they become exposed to air. They must have the constant protection of water and wet sand for their environment. Fish, crabs, plankton, worms, jellyfish, sea stars and many mollusks inhabit this important zone.

On the other extreme is the supratidal zone, the land area above the high tide line which is rarely covered by water. Most creatures living in this zone are land animals familiar to us. The ghost crab is one unusual resident, but these crabs do need to "wet their gills" several

times a day to survive. Usually there is severe heat in this zone during the summer months, and survival is difficult.

The land between these two zones is the intertidal zone, where organisms surviving must adapt to the alternating inundation by water and exposure to air. In many ways this is the harshest of the three zones because of the exposure to the elements, the wave action and the constantly changing conditions.

In *The Wonderful World of the Seashore*, Albro Gaul says of the land between the tides:

Even though the beach area between the high and low tide marks on our beaches and mudflats was the first home of nearly all of our ancestral land life, it is a very difficult place to live. When the tide is high, the plants and animals must avoid being washed away and the terrestrial creatures must either adapt to a life under water or drown. At low tide, the marine creatures must somehow avoid death by drying out...

The important intertidal zone—that land between the tides—is not just the place for people on vacation, but one of the most interesting habitat zones in the complex area where land, sky and sea come together.



PHOTO BY BILL FAVER
MOST SHELLS, like these olives, are in the intertidal zone, which is twice daily flooded by the sea.