

SOUTH CAROLINA WILDLIFE

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SOUTH CAROLINA WILDLIFE

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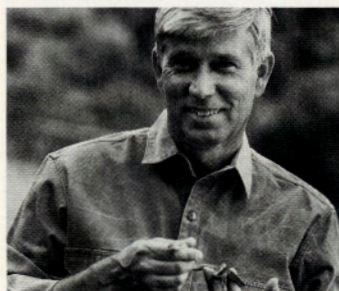
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STATE DOCUMENTS

Dedicated to the Conservation, Protection and Restoration of Our Wildlife and Natural Resources, And to the Education of Our People to the Value of These Resources.



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FOCUS

"SEE THAT GUY OVER THERE SETTING UP THE BUNSEN BURNER?" MY ROOMMATE SAID. "They say he waded out into a pond and snatched a water moccasin right off a log."

When later asked about the validity of that story, our fellow Wofford pre-med student, Rudy Mancke, grinned. "As I remember, that was a harmless water snake. I have never understood why a creature as large as man has this extraordinary fear of a small creature like a snake. If either of us has reason to be afraid, it's definitely the snake. Just think about how most meetings between snake and man turn out."

Few people can come close to Mancke's boundless energy and infectious enthusiasm for all things natural. We've all seen individuals who seem to "turn on" when others are watching. However, with Mancke, what you see on the television screen is exactly what you see off-camera. For a closer look at what makes our state's most famous contemporary naturalist tick, we invite you to see Mike Livingston's "Always One Foot in the Woods" on page 24.

It's never easy to let that big fish go, even when you know releasing your catch is in the best interest of the resource. This issue's key article, "Coastal Challenge," gives some insight into the problems biologists often face while trying to explain their management recommendations to those of us who have no scientific training but a deep love for outdoor recreation.

After reading Art Carter's "Sporting Collectibles" on page 16, an outdoorsman hoping to find that perfect Christmas present may start looking in his grandpa's garage and attic rather than under the tree. The writings of Franklin Burroughs ("Dawn's Early Light," page 4) and Dot Jackson ("Christmas in the Upcountry," page 30) are our special holiday gifts to all who love well-told tales. You'll also find a feature explaining the ideas behind "biodiversity," a natural resource management buzzword, a quiz for those who love sports and wildlife and a look at a side of the Grand Strand most tourists have never seen.

We hope you'll enjoy this holiday issue as much as we enjoyed putting it together for you.

— THE EDITOR



The South Carolina Department of Natural Resources is the advocate for and steward of the state's natural resources. The Department of Natural Resources develops and implements policies and programs for the conservation, management, utilization and protection of the state's natural resources based upon scientifically sound resource assessment and monitoring, applied research, technology transfer, comprehensive planning, public education, technical assistance and constituent involvement. The Department of Natural Resources is pro-active in protecting the state's natural resources for use and enjoyment by future generations of South Carolinians.

Carroll A. Campbell Jr., *Governor of South Carolina*

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Clearing The Confusion

*R*ules that govern human conduct should be simple and straightforward. Such rules are easily understood and, therefore, readily obeyed or enforced. Perhaps



the best example of this is found in the Ten Commandments. There are only 10 and they are very direct. Unfortunately, over the years, the laws governing the protection and management of South Carolina's natural resources have not been simplified and are hard to understand. Laws like these, that are not readily and easily understood, are not easily followed or obeyed.

The S.C. Department of Natural Resources has undertaken a long-range effort to modernize and simplify its many laws. Currently, the DNR operates with statutes that have not been significantly overhauled since the 1940s. These laws are an amalgamation of earlier attempts at protection and

If we teach our children that they are guardians of the environment, shouldn't we take interest in the laws dealing with our natural resources?

regulation of game animals and reflect neither current technology nor modern management techniques that are widely used and recognized in the profession.

Anyone who works in this area knows that some of the laws are contradictory. For example, Section 50-17-615 makes it lawful to trawl within Bull Bay seaward commencing at the mouth of all creeks and rivers entering Bull Bay, yet Section 50-17-618 makes it unlawful to trawl in that same area. Section 50-11-150 defines "night" as the time between official sunset one day and official sunrise the following day, yet Section 50-11-710 defines "night" as that period of time between one hour after official sundown of a day and one hour before official sunrise the following day.

Some laws are of questionable constitutional validity. For example, at this writing, Section 50-17-95, which prohibits the possession, landing or selling of any species of fish taken by a bangstick, is under litigation in federal court. The attorneys who have challenged this provision have been successful in several similar cases along the Gulf and Atlantic seaboard. Also, many of South Carolina's shad laws regulate shad fishing by river system. While that may be desirable from a management standpoint, it may require special legislation that is prohibited under the state Constitution.

Still other laws enacted over the years have simply catered to small special interest groups, which is not in the best interest of the resource or the general public. (For example, each legislative session recommendations are made for changes in legislation dealing with hunting seasons, changes that suit the interests of certain user groups.)

The General Assembly has directed a more simplified and responsive state government through its efforts on restructuring. In keeping with this directive, the DNR will be offering in the next three to five years revisions of the natural resources statutes designed to make these laws more simple and, therefore, more user friendly. The agency will need help from its most valuable resource: its user groups.

We will be seeking input from wildlife enthusiasts regardless of their ultimate interest and use of the resource. We seek to broaden our constituency and to encourage participation in outdoor enjoyment by more South Carolinians than those traditionally involved in hunting and fishing. By revising our laws and making them more simple and more uniform, the DNR should be able to respond quickly and efficiently to resource needs and customer suggestions.

I hope this new direction toward simplification meets with the approval of South Carolinians, especially those who are directly involved in promoting and protecting the wise use of our precious natural resources. In a sense, even though the DNR is mandated by law to be the guardian of these natural resources, every South Carolinian is a guardian of our natural resources and should take special interest in the laws that direct the management and protection of them. Without full support, cooperation and enthusiastic input from our citizens, we will not be able to modernize and be more responsive to our current and future needs. In this regard, we need your help. 🐾

— James A. Timmerman Jr.
Director, SCDNR

DAWN'S EARLY LIGHT

Daddy, Mr. Harper, and the others went ahead and hunted Chicora the year I was sick.

They went on Opening Day and on as many Saturdays thereafter as they could manage. They would leave in the small hours, and not be back until well after dark. I read a great deal, books I understood and books I didn't: fiction, biographies of famous Americans intended for Youthful Readers, and many stories, invariably sad, about a fox named Vulpes, a mink named Mustela, or an otter named Lutra, as it came blind and squirming into the world, eluded hawks and owls, learned to hunt and hide, felt strange promptings and stirrings in itself on frosty autumnal nights, fought, mated, outsmarted trappers (perhaps losing a toe in the process), and finally, its solitude and wildness uncompromised, succumbed. I read, with a great sense of virtue and 80 percent incomprehension, some volumes of Samuel Eliot Morrison's *History of United States Naval Operations in the Second World War*: the heroic futility of the torpedo bombers at Midway; the Marianas Turkey Shoot; 31 Knot Burke; Ironbottom Sound; the Tokyo Express.

But more than anything else, I turned again and again through the pages of Audubon's *Birds of America*. It became one of those superstitious routines of childhood that you do so compulsively that it can almost make you sick. The birds assumed personalities, threatening or beseeching. Even the sequence of the plates seemed to have a significance, although I could not have said what it was.

On days when Daddy and Mr. Harper had gone down to the ricefields, I would pass my time in the usual ways, but also with a kind of Christmas-eve excitement, waiting on them to get back. I knew the schedule of their day — in the blind before dawn, staying there until midmorning, then jump shooting the ditches; finding a good sunny spot for lunch and a bit of a nap, maybe fishing a little with live bait around the ditch-mouths to kill the early afternoon before returning to the blind.

By the time I was having my supper and the street lights were coming on, they would be picking up the decoys, calling it quits. They would paddle out of the ditches into the creek, crank up the outboard, and motor



For weeks, he had admired them on the pages of Audubon's *Birds of America*. Yet seeing the ducks before him now — in the actual flesh and feathers — he was beguiled by their beauty.

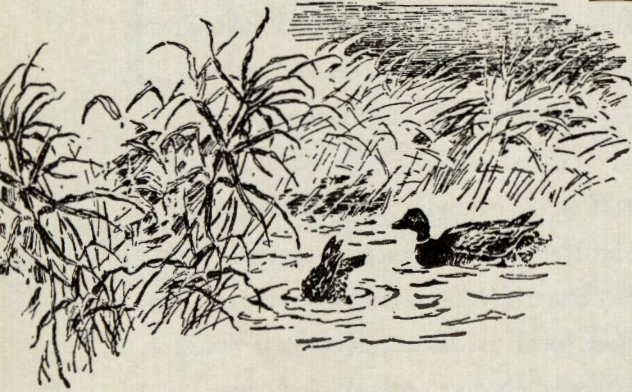
by Franklin Burroughs

down the creek to the Pee Dee, across the Pee Dee to the landing at Chicora. They would load the boat into the truck, take off their hip boots and put on ordinary shoes, so that they could walk up onto the porch of the big house and knock on Mrs. Wilson's door. Her dog would bark until she spoke to it, and they would wait on her to make her way to the door. She would open it, they would step inside just long enough to thank her for the hunt, tell her what they had seen and shot. They would offer her a duck, which she would decline; she would offer them a glass of sherry, which they would decline. Then the long drive back: out to the highway at Plantersville, across the Big Pee Dee bridge and the long, rattling wooden trestle over the swamps at Yauhannah, past Bucksport and Bucksville and Toddville, and on in to Conway. Daddy would generally swing by to drop Mr. Harper off, would be invited in for a drink which would not be sherry and not be declined, and then at last I would hear him turning into the driveway. The truck door would slam shut, and he would come in the kitchen door, speak to Mama, call out to Coles, and come down the hall. He would open my door softly, to see if I was sleeping, find that of course I was not, and ask how I was feeling. "Fine," I'd say. "What did you get?"

When he came into the room, he would still have on his hunting coat. You could smell the cold, outdoor energy of winter in its folds, and also the complex smell — fresh and musty at the same time — of the river marshes. He would spread the coat over the foot of the bed, take the ducks out of the game pouch, and lay them on the coat — four if it had been a good day; on bad days, a measly teal or scaup. Their feathers were ruffled and unkempt; there was a dark gel where the eye had been; a wing or leg might be broken and twisted. I doubt that the elders ever stared at Susannah with any greater rapture and confusion than I stared at those ducks.

It was nothing to do with the triumph of killing them, the hankering for manliness. You could take the tip of a black duck's wing, and open out the wing like a hand of cards. There, just as Audubon had showed it, would be the deep, heartbreaking blue of the speculum against the brown of the wing. The underside of the wing was pure white; the legs a coral red. The breast and belly were the dark umber that gives the bird its name, but the name does not suggest how each dark feather is outlined with a faint marginal trimming of ochre. The whole bird had a lovely, sober look of deliberate understatement, and the traditional name for it in the ricefields was English mallard. That was ornithologically illogical — black ducks are

closely related to mallards, but they do not occur in England at all. I can only imagine some homesick colonist looked at one — the prime ricefield bird, big and exceptionally wary, and with such a well-bred, unflashy, unflighty appearance — and thought, by some strange, xenophobic process of poetic associations, of his own, his native land.



The beauty of the ducks that Daddy brought home — widgeon, pintail, teal, mallard, black duck, wood duck — had not been surprising in Audubon's paintings. A painting intends to be beautiful; the only necessities it acknowledges are aesthetic. But it was breathtaking to see, in the actual flesh and feathers, how the slim, tapering sprig of white curved from the drake pintail's breast up the sides of its neck, accentuating the rich brown of the throat, nape, and head, and providing a deft anterior counterpart to the long, slender tail that gives the bird its name and its unmistakable profile in flight.

And even a pintail was eclipsed by the drake wood duck, the commonest of all the ricefield ducks. Audubon shows two pairs of them. In the upper half of the painting, just left of center, a drake stands, puffed up and proud, on a sycamore limb; a hen reaches up to him, touching her beak to his. Her wings are aflutter; she is wooing him. In the lower half, just right of center, a hen sits, with only her head and shoulders visible, on her nest in a hollow branch; a drake flies past what is in effect her threshold, crying out. He is now the one who looks eager, joyous, and suppliant. The painting could be called *Courtship and Marriage*, or it could be seen in the light of Audubon's own dandified masculine vanity and his passionate uxoriousness. But he was responding to something that others also saw in the bird. Linnaeus, who probably never set eyes on a live one, was atypically unclinical in giving an official name to this exotic little duck: *aix sponsa* — bridal duck. I could not believe the first one Daddy brought home — a wild creature, swift and elusive and wonderfully suited to its preferred habitat of swamps and backwaters, with an oriental opulence of plumage. Once in Sunday school we were asked what we would have presented to the infant Jesus in the stable, if we had gone there. The right answer turned out to be a pure heart, or something along those lines, but I knew inside myself that it would be a pair of wood duck, bright and friendly as the ones Audubon had painted. 🦆

Conway native Franklin Burroughs teaches English at Bowdoin College in Maine.

Excerpted from Billy Watson's *Croaker Sack* — Essays by Franklin Burroughs. Copyright ©1991 by Franklin Burroughs. Reprinted with permission of the publisher, W.W. Norton & Company, Inc., 500 Fifth Avenue, New York, NY 10110.

WHITEWATER RAFTING MANUAL by Jimmie Johnson, Stackpole Books, 5067 Ritter Road, Mechanicsburg, PA 17055, 1-800-732-3669. Paperback, black and white photos, drawings, 262 pages, 1994.

For introducing novices to river running, getting away with the family for a weekend, or tackling wild white water, rafts are becoming more popular. A new learning guide for rafters, **Whitewater Rafting Manual**, introduces the basic maneuvers necessary for exciting and safe trips in inflatables.

The book contains nine chapters covering understanding the rivers, maneuvering on the river, oars and paddles, paddle rafting, inflatable kayaking, equipment and gear, safety, rescues and recoveries, and planning trips. Clear and precise instructions complement detailed drawings and photos. The manual also explains how to move a raft with forward strokes, backstrokes, draw strokes and pry strokes and provides tips on rigging, preventative maintenance, treating common rafting injuries, on-river repairs, and first aid. This book will keep river runners on the water for years to come.

AT THE WATER'S EDGE: WADING BIRDS OF NORTH AMERICA by John Netherton, Voyageur Press, 123 North Second Street, P.O. Box 338, Stillwater, MN 55082-5002, 1-800-888-9653. Hardbound, color photos, bibliography, 128 pages, 1994.

An impressive feathered friend may live as close as a nearby pond, according to John

Netherton, author of **At The Water's Edge: Wading Birds**.

Netherton defines wading birds as long-legged birds that live near and depend on shallow water for their survival. The book features such waders as whooping cranes, white ibises, roseate spoonbills, great egrets, wood storks and great blue herons.

Birders, naturalists, travelers and those who simply enjoy seeing wild birds can learn where and when to visit for the best sightings, while over 100 full-color photos tempt readers with what they can see.

Maps and directions included in this book detail migration routes, feeding areas and nesting sites for 19 species of wading birds living throughout North America.

Complete with a list of wading bird classifications, bibliography and index, **At The Water's Edge** also discusses breeding, courtship, nesting, hatching, feeding, vocalizing and roosting.

This lavishly illustrated volume is not only beautiful, it also contains biologically accurate natural history information on wading birds. Netherton interviewed ornithologists and conducted in-depth research to gather recent data on wading birds, from plumage and preening to communicating and migrating.

Once you experience the brush of beating wings, says Netherton, "you're hooked." Netherton, a professional nature photographer who lives in Nashville, Tennessee, said he became interested in photographing wading birds after visiting the Florida Everglades. As he sat one

February morning on the edge of Mrazek Pond in Everglades National Park, wading birds gathered around him. Eventually, one spoonbill flew so low over his head he could feel the bird's primary feathers brush his hair. That was all he needed to begin his ardent pursuit of wading birds with his camera.

SOUTH CAROLINA'S MOUNTAIN WILDERNESS: The Blue Ridge Escarpment by Tom Blagden Jr. and Thomas Wyche, Westcliffe Publishers, P.O. Box 1261, Englewood, CO 80150-1261, 1-800-523-3692. Hardbound, color photos, 128 pages, 1994.

The Blue Ridge section of South Carolina, home of the 40,000-acre Mountain Bridge Wilderness area, is one of the most scenic sights in North America. Hidden in the state's northwestern corner, it is a breathtaking landscape of high ridges and peaks, sheer rock faces, fast-flowing rivers and beautiful waterfalls.

Much of this land has been preserved in its natural condition. It is this pristine splendor that photographers Tom Blagden Jr. and Thomas Wyche showcase in their new book, **South Carolina's Mountain Wilderness: The Blue Ridge Escarpment**.

Secretary of Education Richard W. Riley, writing in the book's foreword, states that "education takes many forms . . . including an understanding of our natural world, and this book is about one exceptional piece of our natural world: the Blue Ridge Escarpment of South

Carolina — a natural wonderland of over 150,000 acres, unspoiled by the heavy hand of human development."

Greenville conservationist Thomas Wyche, who 20 years ago began working with the private sector and state and federal agencies to protect the Mountain Bridge, has spent many years camping, hiking, and photographing the mountains of South Carolina. His text provides an enticing introduction to this part of the state, giving us an insider's look at this special place.

Nature photographer Tom Blagden brings his own artistic and gifted insight to this book. Magnificent photos of the national wild and scenic Chattooga River, Lake Jocassee, rolling foothills unfurling from Caesars Head State Park, and Slicking Falls in the remote splendor of Greenville's Table Rock Watershed show the wondrous beauty of South Carolina's highlands. Closeups of rhododendron, Christmas ferns, sumac, mushrooms, huckleberry and American chestnut and hemlock trees, dwarf iris, Catesby trillium, mountain laurel, and Oconee bells spotlight the immense variety of plants, trees and flowers that make this area a botanical Eden.

Sponsored by The Daniel Foundation and Milliken & Company in cooperation with The Nature Conservancy of South Carolina, **South Carolina's Mountain Wilderness** will be savored by hikers, outdoor photographers, waterfall fans and anyone else who exults in the beauty of the Blue Ridge. 🐾

— Tricia G. Way

FORUM

Sweet Memories Of Persimmons

Just prior to the publication of Jim Casada's excellent article "Of Puckers, Puddings and Persimmons" (Sept.-Oct. 1994), some of the senior members of the Donalds Historical Society had been sharing recollections about persimmon beer, mentioned in the article.

Dr. Wofford Baldwin recalls that when he was a child his family blended persimmons and locust pods to make beer as a table beverage. His mother used a wooden tub with a spigot near the bottom to brew it. She put a layer of dry broomsedge on the bottom as a filter and added alternating layers of frost-sweetened persimmons and locust pods.

Dr. Baldwin recollects that the alcohol content was too low to detect: the beer had less kick than cider. It was possible to recharge the tub once or twice with water to get second and third batches from the original "makin's."

Lewis Johnson remembers that making persimmon and locust beer was fairly prevalent around Abbeville County during the 1920s when he was growing up. His wife, Laura, recalls that her family up around Easley also made it, but that her mother added baked and peeled sweet potatoes in layers alternating with the persimmons and locust pods.

Robert Drake remembers that some families added late apples from the mountains to give a cidery tang to the persimmon and locust-pod beer.

None of the members of the

Donalds Historical Society still make persimmon or locust-pod beer, perhaps because locust trees are scarce around here.

Jim Wilson
Donalds

Oh Deer!

I have just completed reading Derrell Shipes' article on antler oddities in the Sept.-Oct. issue. This article was of special interest to me because of a hunt last year in November.

I had been hunting an area in which I had seen a large deer several times over the past two years. This day, around 12:15 p.m., I was able to take a nice seven point that was running with a doe.

Imagine my surprise to find that the seven point was also a doe. This doe had an outside spread of 17 inches and a base (circumference) of more than 5 1/2 inches. I can tell you it generated some interesting comments when I checked it in at a check station in Chappells.

J.R. Boyce
Simpsonville

Carolina Panthers?

When returning from a business trip to Hilton Head two or three years ago, I had an experience that I still cannot explain but want to share after reading "Carolina Panthers?" (Sept.-Oct. 1994).

It was late afternoon toward the beginning of fall, and I took the road that cuts from Highway 17 to 17-A and comes out in Cottageville. The road cuts through woods — a beautiful, quiet stretch.

As I was driving along I saw a black "thing" jump into the

road ahead of me. I slowed and the animal turned and looked at me and the car, not afraid, then jumped into the woods on the other side.

This animal reminded me instantly of a small, young panther — larger than a house cat, but not as big as my golden retriever. It was black all over with light eyes. An eerie experience.

Diane F. Wilson
Summerville

Editor's Note: Light sometimes plays tricks in terms of color.

However, if the creature you saw was indeed black, it probably was not a cougar.

According to Bob Downing, a cougar expert formerly with the U.S. Fish and Wildlife Service, "Some black animals, such as Labrador retrievers, are reported to be black panthers because that's the color panthers are supposed to be, according to folklore. But there is no record of a melanistic (black) cougar in North America."

From A Proud Islander

While I appreciate the coverage you gave the Lowcountry area in the latest issue of *South Carolina Wildlife*, I wish you would come a little closer to James Island. We have what I consider a unique aspect here that your readers might like reading about.

The Ellis Cut, known hereabouts as the Wappoo Cut, was cut during the 1930s to make part of the Intracoastal Waterway easier for travelers. It gives the traveler a chance to come into Charleston proper.

Another unique angle: In the spring, when the moneyed set

are going north from their winter quarters in Florida, I go down to Plymouth landing and watch the parade of boats. As October approaches, we can watch the parade of boats going back to their winter quarters.

Believe me, some beautiful yachts come through this area. I counted 26 boats one extraordinary viewing day a couple of years ago, all in one glorious parade.

Robert E. Donegan Sr.
James Island

Where's The Boykin?

I enjoy reading *South Carolina Wildlife* each month, but I was disappointed in the July-August 1994 article "Dogs That Do It All." The Boykin spaniel wasn't mentioned. As you know, this breed originated in South Carolina and certainly meets the requirements.

Keep up the good work, even if you don't take credit for one of the most versatile dogs that originated in the great state of South Carolina.

G. David Maxwell
Athens, Georgia

Editor's Note: The decision to omit the Boykin was based not on any lack of pride in our state's most celebrated canine; they are excellent companions and retrievers. However, the versatile breeds Mr. Vance mentioned are bred to retrieve on land and water, to find and point upland game birds, and also are often used to hunt furred game. For those who love Boykins as much as we do, our last feature on South Carolina's state dog appeared just ten months ago in the Sept.-Oct. 1993 article "Gun Pups." 🐾

ANIMALS

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COASTAL CHALLENGE

Fish like red drum that cruise across state borders and move from estuaries to open ocean test the wits and wisdom of scientists working for their conservation.

by Pete Laurie

photography by Phillip Jones

“What’s the sense of going fishing if you can’t keep what you catch?”

This abrupt question from the audience interrupted Charlie Wenner’s talk to a coastal fishing club, but it didn’t surprise him. A fisheries biologist with the S.C. Department of Natural Resources and an experienced saltwater angler, Wenner hears this type of question more and more often as a series of restrictions have been placed on the size and number of marine fish that can be harvested.

The frustrated fisherman told Wenner of a recent fishing trip he’d taken with several friends to the Winyah Bay jetties. “We caught nine red drum, all big fish, and the law says we had to throw every one of them back. Finally we just pulled up the anchor and went home disgusted.”

Wenner deviated from his planned remarks to address the question. “Large red drum school in the ocean just prior to spawning,” he explained. “These fish live up to forty years and must spawn successfully several times to sustain the population.” Then he paused for emphasis. “If you take these spawners you kill the future of fishing.”



Marine biologists wade the shallows to net red drum for tagging studies. After being weighed and measured, the fish are released and their movement and growth monitored.





Large red drum capable of spawning millions of eggs must be protected to prevent the collapse of fish stocks. Young drum prefer the sheltered tidal creeks and as they grow will leave the marsh for the main estuaries. Most tend to remain in one area, however, making them vulnerable to overharvest.



Recalling the incident later from his office overlooking Charleston Harbor, Wenner leaned back in his chair. "I explained to those folks that we've been studying red drum for a number of years, as have researchers in other states. We know that adult fish spawn offshore, and the larvae drift into estuarine waters on the currents and tides. Immature red drum spend three to four years in inside waters before reaching maturity at a length of about twenty-six to twenty-eight inches. They then move from the estuaries into the ocean where they spawn and spend the rest of their lives.

"The small fish in inside waters get hammered by anglers with small boats. By the mid-1980s a lot of us — researchers, managers and fishermen — began to worry that too few immature red drum could run the gauntlet of this heavy fishing pressure and make it to the relative security of offshore waters to mature and reproduce."

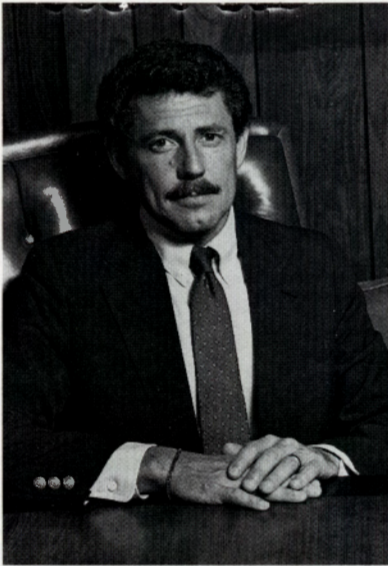
South Carolina currently has fourteen-inch minimum and twenty-seven-inch maximum size limits and a five-fish-per-angler-per-day catch limit on red drum. The minimum size limit protects young fish, while the maximum size limit prevents the taking of large spawners capable of producing millions of offspring during their long reproductive lives.

"Considering all the pressure on red drum in the fourteen- to eighteen-inch range, if fishermen continued to keep trophy fish the population could virtually collapse within a few years," Wenner said.

By the mid-1980s, as public support grew and fishermen themselves began clamoring for size and catch limits, as well as for restrictions on gill nets used to catch red drum, the S.C. General Assembly enacted new laws to protect the species. But fish such as red drum that spend only part of their lives in state waters cannot be adequately managed by state law alone.

"Once adult red drum or any other marine species move beyond the state's territorial sea, what we used to call the three-mile limit, South Carolina has no jurisdiction," said David Cupka, director of the Marine Resources Division's Office of Fisheries Management. "When the blackened redfish craze hit the restaurants, the commercial fishery for red drum in the Gulf of Mexico just about wiped out that population. We sure didn't want the same thing to happen here."

In 1990, based on population studies of Atlantic coast red drum and the devastation of drum populations in the Gulf of Mexico, the federal government, through the South Atlantic Fisheries Management Council (SAFMC), banned red drum fishing in offshore waters along the entire Southeast coast. One of eight



by Paul A. Sandifer

Deputy Director,
Marine Resources Division

The DNR's Marine Resources Division is committed to providing the best scientific information and resource management possible to conserve and protect our state's fishery resources for present and future use. Further, as "Coastal Challenge" demonstrates, managing the saltwater fisheries of South Carolina is quite complex and involves regional and federal entities, as well as our agency, fishermen and the public.

This complex regulatory system is necessary because fish do not pay attention to political boundaries, such as our state borders, but instead are distributed widely along the coast. Such species are termed "interjurisdictional," since they occur in more than one state's waters and often migrate from one state's jurisdiction to another.

For species found mostly in federal waters (outside the state's three-mile territorial sea), our division works with the South Atlantic Fishery Management Council, which is headquartered in Charleston. For far-ranging coastal species, the division participates in the Atlantic States Marine Fisheries Commission, established by Congress fifty-two years ago to "promote the better utilization of the fisheries . . . of the Atlantic seaboard . . ."

In the case of species such as red drum, which are dispersed along the coast, our division can be most effective by working with other states in the region. To improve such regional cooperation, Congress in 1993 passed the Atlantic Coastal Fisheries Cooperative

Management Act. We believe this is among the most significant marine fisheries legislation of the 20th century, perhaps second in importance only to the Magnuson Fishery Conservation and Management Act of 1976. This Atlantic Coastal Fisheries Act was sponsored by South Carolina's own Senator Ernest F. Hollings and was based in part on the federal legislation that has led to the recovery of the once-decimated coastal striped bass populations.

Under the coastal fisheries act, the Atlantic States Marine Fisheries Commission must develop and adopt fishery management plans for conservation of coastal species using the best available scientific information and involving the public in their preparation. The act further establishes an obligation on the part of the states to implement the provisions of the management plans. If a state does not comply, then, after an appropriate period for review and fact-finding, the Secretary of Commerce may impose a complete moratorium on all fishing for that species in waters of the state in question. Thus, one state's failure to live up to its conservation commitments under the agreed-upon plan would not cause failure of the overall conservation effort.

Public involvement in marine fisheries management is critical, and there is opportunity for public input at every step in the policy formulation process. Our division's Marine Advisory Board invites public comment at every meeting, and the South Atlantic Fishery Management Council and Atlantic States Marine Fisheries Commission also encourage citizen participation. All this public comment is actively considered as management strategies and regulations are debated and developed.

The existing system of cooperative regional fishery management will, in my opinion, be enhanced by the passage of the Atlantic Coastal Fisheries Act. Yet it is still the fishing public who makes fisheries management actually work.

The questioner in this article voiced the confusion many anglers experience. It is part of our job to help them understand the reasons behind the policies and decisions. A well-informed, conservation-minded fishing public is the fundamental requirement for effective fisheries management. Without the cooperation of such a public, no amount of law enforcement could adequately protect a given species. 🐟

regional councils established in 1976 by the federal Magnuson Fisheries Conservation and Management Act, the SAFMC manages fishery resources in offshore waters out to two hundred miles.

But since adult red drum move up and down the coast crossing state borders, neighboring states ideally should enact similar size and catch limits and other measures in state waters to protect the overall population. To achieve this uniformity, the Atlantic States Marine Fisheries Commission (ASMFC), an organization created by the U.S. Congress to address fishery problems on the East Coast, developed and adopted a management plan for red drum in 1984. However, not all member states enacted this plan. The result: a "hodgepodge" of red drum regulations from state to state.

Last year, Congress enacted the Atlantic Coastal Fisheries Cooperative Management Act, which requires states to implement catch restrictions as outlined in ASMFC fishery management plans. Failure to comply could result in a complete closure of fishing for that species in state waters.

"In other words, if South Carolina failed to comply with the ASMFC's red drum plan, the federal government could step in and outlaw all fishing for red drum in South Carolina," said Cupka, shaking his head at that prospect. Current size and catch limits for red drum specifically comply with the ASMFC's plan.

In the development of management plans for red drum and various other species, opportunities exist for public involvement at all levels. Fishermen can (and do) express their views on any type of fisheries legislation under consideration by the state legislature. The SAFMC has a variety of advisory panels and conducts numerous public hearings before preparing final plans for any species.

The ASMFC, too, has provided considerable opportunity for public input and intends to re-evaluate all existing plans with citizen input. In fact, the Atlantic Coastal Fisheries Cooperative Management Act mandated an increase in public input and participation in the planning process.

Far from set in concrete, management plans must have the flexibility to adjust to changes in fishing pressure and population size.

"We review plans annually to see how well they work, and to evaluate changes needed," Cupka said. "Fisheries management requires a dynamic approach as fish populations, human needs and interests change, and new equipment and techniques develop."



Recreational anglers play a major role in fisheries management. Their input in the planning process is encouraged, and the information they provide through tag returns gives scientists data to make responsible decisions.

To illustrate how quickly changes can come about, Cupka pointed to the shrimp baiting fishery. In 1993 an estimated 40,000 South Carolinians participated in the annual sixty-day shrimp baiting season, catching more than 2.5 million pounds of shrimp. Ten years ago this fishery did not even exist.

Research and monitoring, too, must remain ongoing to fine-tune knowledge of fish life histories and to determine the potential impacts of even subtle environmental changes. Researchers must continuously measure the condition of populations, and fishery managers must determine the effectiveness of fishery regulations in maintaining stocks for future generations.

The 1994-95 South Carolina Hunting and Fishing Rules and

Regulations booklet lists more than 75 species of marine fish, shellfish and crustaceans currently regulated in state and federal waters off South Carolina. The increasing number of species under management requires additional research.

"The job gets complicated," Wenner said, "because even closely related fishes may have very different life histories that we must sort out and then apply that knowledge to develop vastly different management approaches.

"Fishermen hammer spotted seatrout, for example, just as hard as red drum, but trout mature in only one year, not the three or four years red drum require."

Based on these different life histories, current regulations for spotted sea trout include a twelve-inch minimum length, no maximum length and a fifteen-fish-per-day limit — much more liberal restrictions than those for the slower-growing, later-maturing red drum.

"We try to balance the short-term economic benefits of marine fisheries and the recreational opportunities they provide with the long range sustainability of these resources," Cupka said. "To simply declare a complete moratorium on the catching of red drum, for example, would certainly protect the species from overfishing. But it would also eliminate a source of recreation and freshly caught seafood and damage the coastal economy.

"During the past ten years or so a host of state, regional and federal agencies have worked together to oversee and protect the red drum population," he added. "We think we've implemented sound management practices based on sound research.

"It all takes time and money, but the public reaps the rewards. The red drum's saga illustrates the complexities of fisheries management and research."

Charlie Wenner said he reminded the fisherman who interrupted his presentation that anglers could still fish for red drum and keep a reasonable five fish per day within certain size limits. "Plus, you can still enjoy catching larger fish — you just can't keep them. Besides, most people find large drum tough and tasteless.

"I also emphasized that we as researchers and managers have no vested interest in all this. It would be easier to sit back and do nothing than to put up with the headaches involved in submitting regulatory legislation, and with the outcries from some segments of the public that typically accompany these efforts. But in the long run, there's no other way to ensure the future of saltwater fishing, both commercial and recreational, in this state.

"And our assurance that we'll keep on planning and working was the best news that frustrated fisherman could hear." 🐟

SPORTING COLLECTIBLES

Prowling through musty closets, grandpa's tackle box, or any other repositories for old sporting equipment just might unearth a forgotten treasure that can finance your kid's college education.

by Art Carter

For multitudes of sportsmen across the United States, leisure time is at a premium.

Work and other responsibilities push hunting and fishing to the back burner — there aren't enough hours in the day. Many of these frustrated outdoorsmen, as well as their cohorts who actually do get out in the field, have turned to collecting the artifacts and tools that are associated with the sports they love.

Acquiring sporting collectibles usually begins as a hobby, a way to obtain many of the wonderful things that remind us of treasured days spent outdoors. Equally important are the history and heritage they represent. Exceptional handcraftsmanship is evident in countless vintage sporting implements. Magnificent shotguns and rifles, fishing tackle and lures, custom knives, waterfowl calls, decoys and carvings, books, stamps, and fine arts, either in the form of prints or originals, are all passionately collected.

Some sporting collectibles are also worth a great deal of money. Anything that is fondly regarded by large numbers of people and is in limited supply, or no longer made, instantly has a high monetary value. Sometimes the prices paid for the most desirable items are staggering.

Fine vintage English and American double barrel shotguns regularly sell for \$50,000 and more. Prices over six figures are not unheard of. Over the last twenty years, vintage shotguns have had one of the highest returns on investment of any collectible (or, for that matter, many other financial securities). A world record for waterfowl decoys was set at auction in the 1980s at the almost unbelievable sum of \$319,000! Bamboo fly rods crafted by past masters can fetch several thousands of dollars. Knives crafted by the most famous custom makers can sell for several multiples of their original cost. Even fishing tackle like a simple wooden bass lure that sold for a couple of bucks a few decades ago can sell for thousands today.

American shotguns, such as a Parker or the L.C. Smith shown here, rank high with collectors. This pre-World War II L.C. Smith, with its matching shorter barrel for skeet and birds, makes an especially rare find. As the only known two-barrel .410 shotgun in specialty grade, this set carries a value in excess of \$15,000.





For those who might like to get into collecting, today there exists a tremendous buyers' market. A slow economy and investors' uncertainty because of current federal governmental policies make this the best time to buy sporting collectibles in the past ten years. But it can't last forever. The time is now.

Sporting firearms have been one of the best investments anywhere over the past dozen years. This is especially true of the vintage American double barrel side by side shotguns made before World War II. Names like Parker, A.H. Fox, L.C. Smith, Lefever, Ithaca and Winchester 21 are sought with an almost religious fervor. The Parker commands the highest prices and most zealous collecting, with five-figure sums not uncommon for high grades. Even a run-of-the-mill field-grade Parker is worth over a thousand dollars if it's in good condition. (The two main factors determining the value of shotguns or any collectible are rarity and overall condition.)

Winchester is arguably the most famous name in firearms and all guns from that firm made before 1964 are eminently collectible. (In 1964 the company decided to take some cost-shaving shortcuts in manufacturing, much to Winchester aficionados' dismay.) Among the most sought-after Winchesters are the Model 12 pump gun and the pre-'64 Model 70 bolt action rifle. Of course, the company made its reputation in the early days of this century with its lineup of lever action rifles. Almost all these latter weapons are very collectible.

Although Browning is regarded as an American company, its over-and-under Superposed shotgun and humpbacked A5 "automatic" shotguns were made in Belgium. Both are thought of highly by collectors and hunters. For many years the Browning A5 "sweet sixteen" was *the* gun in the South.

For the well-heeled collector and shooter, British shotguns have always been money in the bank as investments. No other sporting collectible has gained in value at the same rate. A Purdey Best game gun, for example, could be ordered new for \$10,000 to \$12,000 fifteen years ago. Now one costs in the neighborhood of \$50,000 to \$60,000! Most investments have not performed nearly so well. Any English guns with the names of Purdey, Holland & Holland, Boss, Westley Richards, W&C Scott, and a host of others are very desirable. Collectors also seek out fine European doubles from Italy, Germany, Belgium and France.

Great sporting art has been collected for centuries, but accurately appraising the value of any given piece requires considerable knowledge. Just because one painting from a famous artist commands a hefty sum doesn't mean that a similar work will bring as much.

A host of important artists, both living and dead, have created valuable paintings that also bring joy to those who own and collect them. From recognizable past masters such as John James Audubon, Frank Benson, Richard Bishop, Roland Clark, A.B. Frost, Philip Goodwin, Lynn Bogue Hunt, Edmund Osthaus, Ogden Pleissner, A. Lassel Ripley, Carl Rungius, Charles Russel, Milton

Classic wildlife prints from masters such as Audubon and A.B. Frost will always hold their value, as should the works of better-known contemporary artists. Those who collect for investment must be particularly discriminating and knowledgeable, as prices often remain stagnant in today's market.

Wieler, and others, came works of art that may cost from a few hundred dollars to more than a million.

Work from modern-day artists like David Maass, Guy Coheleach, Robert Abbett and David Hagerbaumer are also prized by collectors. Again, knowledge is power. If at all possible, work with a reputable dealer or get advice from an expert in the field before making any purchase.

Art prints have seen a tremendous growth in popularity during the past twenty years, with many escalating in value. Most, however, do not. If collectors want to invest in such objects, they should only deal in the smallest limited editions by the most respected artists.

Many people collect federal duck stamps and prints because these items are widely available and reasonably priced. The same is true of state wildlife stamps and prints. Because they're produced in greater quantities than other limited editions, chances are slim that they'll escalate as much in value, but they're fun to collect anyway.

The written word has glorified the accomplishments of hunters and fishermen since Dame Juliana Berners, an English nun, penned the first angling story, *A Treatyse of Fysshynge With an Angle*, in 1496. Books on these subjects are among our most cherished possessions and collectibles. With a good book we can relive the exploits of great writers like Jack O'Connor, Joe Brooks, Zane Grey, Teddy Roosevelt, and Havilah Babcock.

That favorite book that you read and enjoyed as a child is probably now worth quite a bit of money on the secondary market (if you foolishly wanted to sell it). However, because sporting books fuel the business of many out-of-print book sellers and collectors, you may now be able to find the title you've been seeking for years. Huge numbers of excellent titles can be had for less than \$50 each. A few very rare books, like some of those published by Eugene Connett's Derrydale Press from the early 1920s to around 1942, command astounding prices because of their limited print runs. Their value will only continue climbing.

As long as there are fishermen there will be fishing tackle collectors. The Eastern fly-fisherman is among the most avid collectors of memorabilia and instruments to actually use to catch fish. The stars of this domain are American-made bamboo fly rods and handmade fly reels. Rods by historic makers have always brought good prices, but in recent years the prices have soared. Names to look for in vintage "golden age" rods are Leonard, Payne, Gillum, Edwards, Thomas, Dickerson, Powell, Young, Garrison, Granger, and others. Modern-day makers like Thomas and Thomas, Carpenter, Aroner, Kusse, Summers, Orvis and Winston build fantastic cane rods that are collectible as soon as they leave their makers' shops. These are certain to increase in value.

Fly reel makers to look for are Bogdan and Seamaster (both of whom have achieved cult status), Pate, Abel, Saracione, Fin-Nor, Corsetti, and a number of

State and federal duck stamps are collected more for love than money, although first of series or anniversary issues yield substantial returns. South Carolina stamps that sold for \$5 in 1981 now fetch up to \$125 apiece.



others. Old baitcasting reels, especially the Kentucky reels of the mid-1800s, are rare and have tremendous value.

Fishing lures also have a big following. If you own some wooden lures with glass eyes, rest assured they have value, so long as they're in good shape. Companies like South Bend, Heddon, Creek Chub, and Shakespeare created some real gems. Even their names bring back fond memories and conjure up visions of yesteryear. If you look closely you may discover hiding in your tacklebox a Ding Bat, Crab Wiggler, Dowagiatic, Crazy Crawler, Zaragosa, Wata Frog, Bass Oreno, a Paw Paw, or one of South Carolina's own Scooterpoopers. Lures are fun to collect and, except for a few examples, don't require a second mortgage to own.

Love of waterfowling has fueled the desires of perhaps the most dedicated of all collectors through generations of sportsmen. For the collector the most visible aspect of waterfowling is the decoy, a counterfeit wooden bird that duck and goose hunters have used for more than 1,000 years (the earliest known Indian decoy) to lure ducks and geese into range of their weapons.

Decoys really came into their own with the federal prohibition against the use of live birds to lure wild ducks in the 1930s. Market hunters, guides and other

Any old tackle box can be the source of remarkable discoveries for collectors. Venerable names, like Creek Chub, South Bend, Mirro-Lure, Dalton and Pflueger, make the aficionado's heart beat faster, but it's the condition of the gear that determines its value. The better it looks, the more it's worth.

innovative duck hunters carved wonderful recreations of the birds they hunted. Buyer, beware — decoy collecting is another area where knowledge is paramount. Prices for these wooden birds are in some cases so lofty that one often finds counterfeits of these counterfeits. However, if you would like a link with the golden days of duck hunting, a decoy by an old master such as Crowell, Hudson, Shourds, Wheeler, Barber, Mitchell, Holmes, Schmidt, Ward and others is a good start. If a decoy by those early makers is too much for your budget, then a nice factory bird like those made by Mason is the way to go.

Waterfowl calls are coming to be regarded as shining examples of American folk art. Indeed, many custom makers today carry on this tradition and will craft you a call for as little as \$50 to as much as \$600. On the other hand, calls from historic makers usually end up in collections and can run into the thousands of dollars. Those to look for are Glodo, Cochran, Shaw, Perdew, Ditto, Beckhart, Hooker, Turpin, Dennison, and many, many others. (It seems that every guide from the 1850s on — or at least those who hunted close to Reelfoot Lake, Tennessee, the Mississippi River Delta regions of Illinois, Arkansas and Louisiana, and the coastal areas of the South — made calls.)

Quite a few modern makers belong to the Callmakers and Collectors Association of America, which has more than four hundred members. South Carolina has several good call makers, such as Bill Grant, of Camden.

Custom knifemaking is enjoying a true renaissance, unparalleled in the history of the sharpened blade. With some four hundred members of both the Knifemakers Guild and the American Bladesmith Society plying their craft nationwide, the sportsman and collector can order almost any custom knife he can imagine. The best makers' wares have always been highly sought. Pioneers of custom knifemaking — William Scagel, Bo Randall, Bill Moran and Bob Loveless — and present-day masters like South Carolina's premier knifemaker, George Herron, of Springfield, have made knives among the most eagerly sought of all sporting collectibles. Indeed, South Carolina is blessed with more than a dozen professionals who belong to the South Carolina Association of Knifemakers.

The nice thing about collecting knives is that, although the sky's the limit on prices for certain important or rare pieces, many reasonably priced knives are sure to appreciate in the years to come. You can buy a custom knife, use it for several years, and then sell it for more than you paid for it. In these days of planned obsolescence, that is truly a bargain.

So whether you collect for fun or profit, sporting mementos abound, and there's an item out there to suit your interest and your budget. Take a little time to research the "big names," check the attic, and get started! 🍄

Art Carter is a writer-photographer for national and regional magazines. He has produced two photo books and is at work on a third.

Always One Foot in the Woods

In order to really know natural history — the nuts and bolts of creation — you have to start early. Rudy Mancke did. And you have to stay long, which he intends.

For Mancke, it will take a lifetime to get just an adequate feel for the way Mother Nature does her business. But knowledge is power, as he will tell you, and that's why when most people are running away from a snake, he is running toward it.

"Knowledge gives you the edge," he said recently in his office at S.C. Educational Television, the Columbia home of the immensely popular *NatureScene* program.

"I deal with people who are scared about natural things," he went on. "Ignorance plays a big part in that. In my life, I have done what I wanted to do. People have turned me loose, trusted me. It's wonderful to do what you enjoy and share that with others."

No matter where he is, Mancke always has one foot in the woods, and that's even true in his SCETV office. Visitors settle in among snakeskins, skulls, bugs, twigs, rocks, leaves and limbs and feel right at home. That's mainly because he is quick to explain the history, natural and personal, of the many artifacts. His conversational style is plain and upfront and his enthusiasm infectious because of its honesty. He once met South Carolina poet laureate Archibald Rutledge, who used to spin tales on the porch of his Spartanburg home. Find something good to write about, Rutledge told him, then make it simple and beautiful. That has been Mancke's hallmark in explaining nature.

"He told me some great snake stories," Mancke recalled. "I'll never forget him. Once, I said after a story, 'Gee, that snake seems awfully long.' He just laughed and said: 'Sometimes you have to add a little to make a story better.' He was wonderful."

NatureScene has been charming television viewers on a national scale since 1986. The future will take Mancke and crew into the wide world — to the Gulf of Finland and to Siberia, for instance. But before he was a globe-trotting explorer of nature, he was a boy with that most golden of boyish attributes: curiosity. He was born on Oct. 21, 1945, in Atlanta, when his father, also Rudy, was in the U.S. Army. He lived in Columbia for a brief while, but home was Spartanburg where he grew up and spent thirty years of his life. His love for natural things is innate, but it became clearly manifest when the family moved to Duncan Park and lake. That environment proved perfect for a budding naturalist.

"I realized then — I was in about the third grade — that I had a strong interest in nature," he said. "I wanted to know 'What's that? What's this? What does it eat? Where does it live?' Then I discovered the public library. I hope that access to a public

Rudy Mancke, South Carolina's most famous contemporary naturalist, came by his profession, well, naturally.

by Mike Livingston

photography by Allen Sharpe

library will always remain one of the inalienable rights. I loved the library."

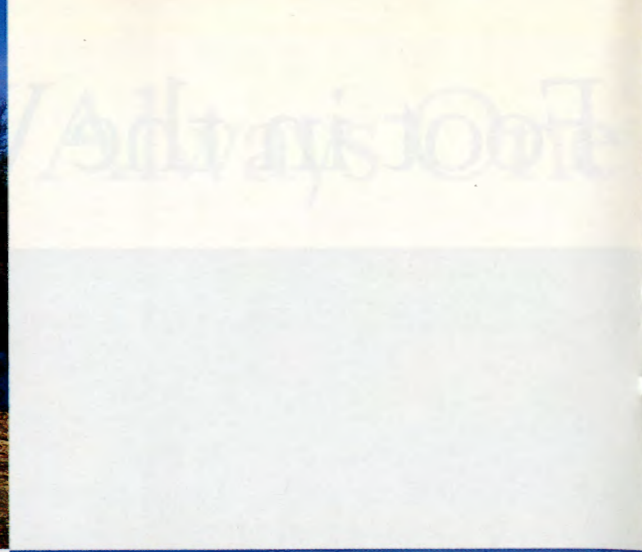
Young Mancke had friends but was something of a loner. He roamed the woodlands and lakeside mostly in the company of the family's fox terrier, Cindy, who was a pretty good mouse chaser. Here Mancke began the lessons that never end and learned the principle that makes them endless: connectedness. The great American naturalist John Muir might have put it best. "When you try to touch one thing by itself," he said, "you find it hitched to everything in the universe." The young collector gathered leaves, flowers, small critters — whatever — and it was off to the library to identify the treasure.

"They were to have a show and tell at school," recalled his mother. "He got a little snail and we put it in a little box. The next morning I heard sniffing in his room and went to see. He was crying. 'I can't find my snail,' he told me. Rudy said he brought the snail in his room because it had gotten cold outside. Now it was gone. He went on to school, and I threw back the covers and there was that snail in the bed.

"Rudy and his brothers slept side by side until they got out of college. We called them the three bears, or three pigs, or three musketeers. They would bring snakes in, too. I told Rudy that he must realize everybody didn't share his love for snakes. I told him if he ever frightened anyone, that's the end of the snake population at our house."

Later, Mancke took over a *Spartanburg Herald* paper route. He turned out to be one of those conscientious deliverers who kindly





Rudy Mancke's lifelong passion for the outdoors has taken him and SCETV NatureScene host Jim Welch (with Mancke at left) across the country and around the world. Subjects for his insatiable curiosity range from the snow geese at Bosque Del Apache National Wildlife Refuge in New Mexico to a tiny garter snake in Montana's Custer National Forest.



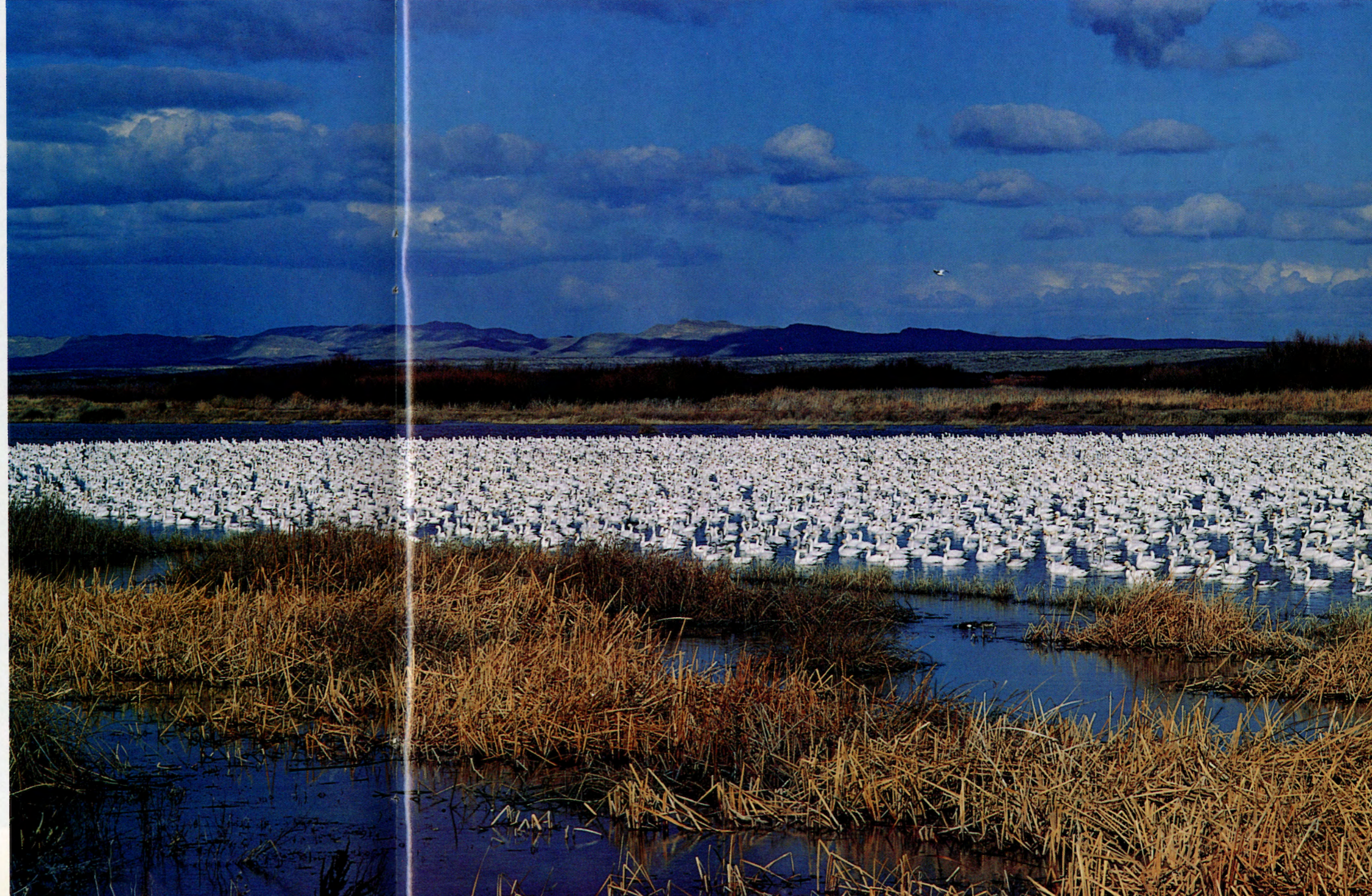
place the paper behind the screen door. One irate reader called him once to complain that he had looked everywhere for his paper — in the azaleas, on the street, everywhere — and couldn't find it. Mancke courteously asked him if he had looked behind the screen door. Such precision was an early trait. It wasn't so much the route money but the mornings that Mancke liked. He was always up before everybody else. There were snakes on the roads in warm weather; the birds did their best singing that time of day; the spider webs were bejeweled with dew.

"It was an adventure," he said. "My whole life, in fact, has been an adventure. I realized early on that everybody is interested in the natural world, but so many never get to learn about it. I realized then that I would gather that information for them."

There's a saying that if you don't know where you are going, any road will take you there. Mancke knew his road early and never got off it. He became involved in the Spartanburg First Baptist Church's Royal Ambassadors, a youth program. The boys would go camping in areas Mancke already knew intimately, and his knowledge was helpful to the group. He was quickly asked to lead a nature study program for the state Royal Ambassadors' camp in Pickens County. The high school student remained nature study guru for the R.A.s all the way through Wofford College, where he majored in pre-med. His mom and dad wanted Mancke to be a doctor. Without really knowing it, though, Mancke was already fast becoming what he was to be for life.

Every good student has somewhere in the background a good mentor. For Mancke, this turned out to be Wofford geology professor John Harrington. It was he, Mancke recalled, who made all the parts in nature come together to make the whole. His course was geology, but his lesson was relationships — the interconnectedness of the natural world.

Mancke recalled, "He told me in my junior year at Wofford, 'Rudy, there will be plenty of good doctors, but not plenty of good naturalists.' I guess I knew that anyway, but it was good to have somebody tell me."





Allen Sharpe, director of photography for the NatureScene project, joins Mancke and Welch at the rim of Haleakala Volcano in Hawaii. With an easy style that has become known around America, Mancke and his team have made the world their classroom — from this breezy national park in the Pacific to the desert Southwest and back to the coast of Carolina.



When he finished Wofford in 1967, he entered graduate school at the University of South Carolina. He was doing work on snake populations in the Piedmont and mountains when he was told his help was needed with a little scuffle in Southeast Asia. Mancke, informed he was about to be drafted, cut a deal with the army that he would serve three years instead of two if he could choose his specialty and service area. He went into X-ray technology.

In the army, Mancke learned about people “who were not like me” and about creatures and habitats around the country and the world. He once terrified his platoon in Texas when he pinned down a giant rattlesnake with his M-16. Returning to Fort Jackson in 1970, he married Ellen Talbert of Spartanburg and continued his tour. As in biology, the military holds the occasional dramatic surprise.

“I was giving a pregnant woman a standard X-ray pelvimetry exam — she had been in labor a long time,” he said. “I guess the tilting and the moving must have jostled something loose. The

baby just started coming. I eased it out and put it on the mother’s stomach. I was standing there with this goo all over me and I was so nervous the only thing I could think to say was, ‘Can I get you a Coke?’ She burst out laughing. She also named her baby after me.”

Mancke’s modern history began when he returned home in 1972 and went to work in his father-in-law’s feed and seed store. Before long, he got a job as a biology teacher at Spartanburg High School. He was still collecting, still roaming the woods, when one day fate smiled again. The newly formed S.C. State Museum was looking for a naturalist, and the only name then-director Bill Scheele had heard was Rudy Mancke. He began his work there in January 1975.

One afternoon Mancke was out in a parking lot cleaning a road-killed mink when he got a call from Jane Adair, producer of an SCETV children’s program called *Studio See*. Would he come, she asked, to “do a little nature spot on the show?” The rest, as they say, is history.

Beryl Dakers soon asked if he would come to do part of her Friday program in the woods. It worked magic. Mancke was a hit, a natural. They did their first *NatureScene* in 1978. The show has had phenomenal success — airing on 300 channels nationally, in Guam, Puerto Rico, the Virgin Islands, and will soon be part of Russia’s television diet. When the national programs began in 1986, he became Director of Science and Nature Programming for SCETV.

“The future looks good,” Mancke said. “I’m getting better as a naturalist each year. I want to know more. It’s part of the adventure. I have done what I wanted to do in my life — I don’t know if I could have planned it better.

“I’ve gotten a lot of thanks and a lot of awards,” he added, “but that’s just icing on the cake. The cake, itself, has been pretty good.”

Mike Livingston is a journalist with The State newspaper and a free-lance writer.

You don’t have to be a pro . . .

An amateur is a person who pursues an activity for the love of it, not for pay. That applies as well to being an amateur naturalist as anything else. Also required are curiosity, of course, patience, and a genuine love of nature and its interconnectedness.

To begin, a novice naturalist might get along with a notebook — indispensable — some field guides and perhaps a pair of binoculars. As expertise grows, that short list might grow into quite a field identification and gathering set.

But first, the experts advise going slowly and beginning locally.

“Start where you are,” says SCETV naturalist Rudy Mancke. “Try to specialize in one thing at a time, but maintain a general interest. The most important thing to remember is not only to get to know the names of things, but to understand the relationships they have with other creatures, plants and ecologies. Study the connections.”

J. Whitfield “Whit” Gibbons, chief ecologist at the University of Georgia’s Savannah River Ecology Lab, agrees.

“You don’t have to go beyond your own back yard to find something interesting,” he says. “There is always something out there. Observe closely, read books, and never be afraid to ask questions. Why is a red bird red? Why is a crow bigger than a sparrow? Any quality or trait that a plant or animal has, you can always ask questions about.

“Later, move around. A person who lives at the sea should go to the mountains, and vice versa. Try to experience as many perspectives of natural systems as you can. Also, get around other people who are interested in nature. This can be done through organizations or with friends who share the same attitude.”

The more serious and adept a beginning naturalist becomes, the more items he or she will likely need. In the very excellent *A Practical Guide for the Amateur Naturalist*, published by Alfred E. Knopf Inc., author Gerald Durrell has kindly presented color plates of additional desirable field materials. These include butterfly envelopes, catch nets, various jars and bottles, examining lenses and tweezers, pocket knife, small digging tools and any number of other items applicable to the specific expedition. Still, chief among the necessities are notebook, field guides and binoculars.

The final page of this helpful book offers a section entitled “Codes for the Naturalist.” These are specific guides on how to behave in the woodlands and wetlands. For instance, take no more specimens than necessary for the purpose; don’t take species from the same place year after year; cut plant material rather than breaking it off; leave things as you find them — that is, if you overturn a rock, turn it back; and so on.

In all, treat nature with respect in your pursuit of its mysteries and surprises.

CHRISTMAS IN THE UPCOUNTRY

Among evergreen woodlands and out-of-the-way workshops, along rural main streets and inside remote meeting houses, a flurry of preparation ushers in the moment when all is calm and bright.

by Dot Jackson

Frost lies across the winter-brown grasses like a thin white blanket, gleaming, glittering in the rising sun. Beyond the roll of minor hills, the mountains rise, slate blue brushed with snow.

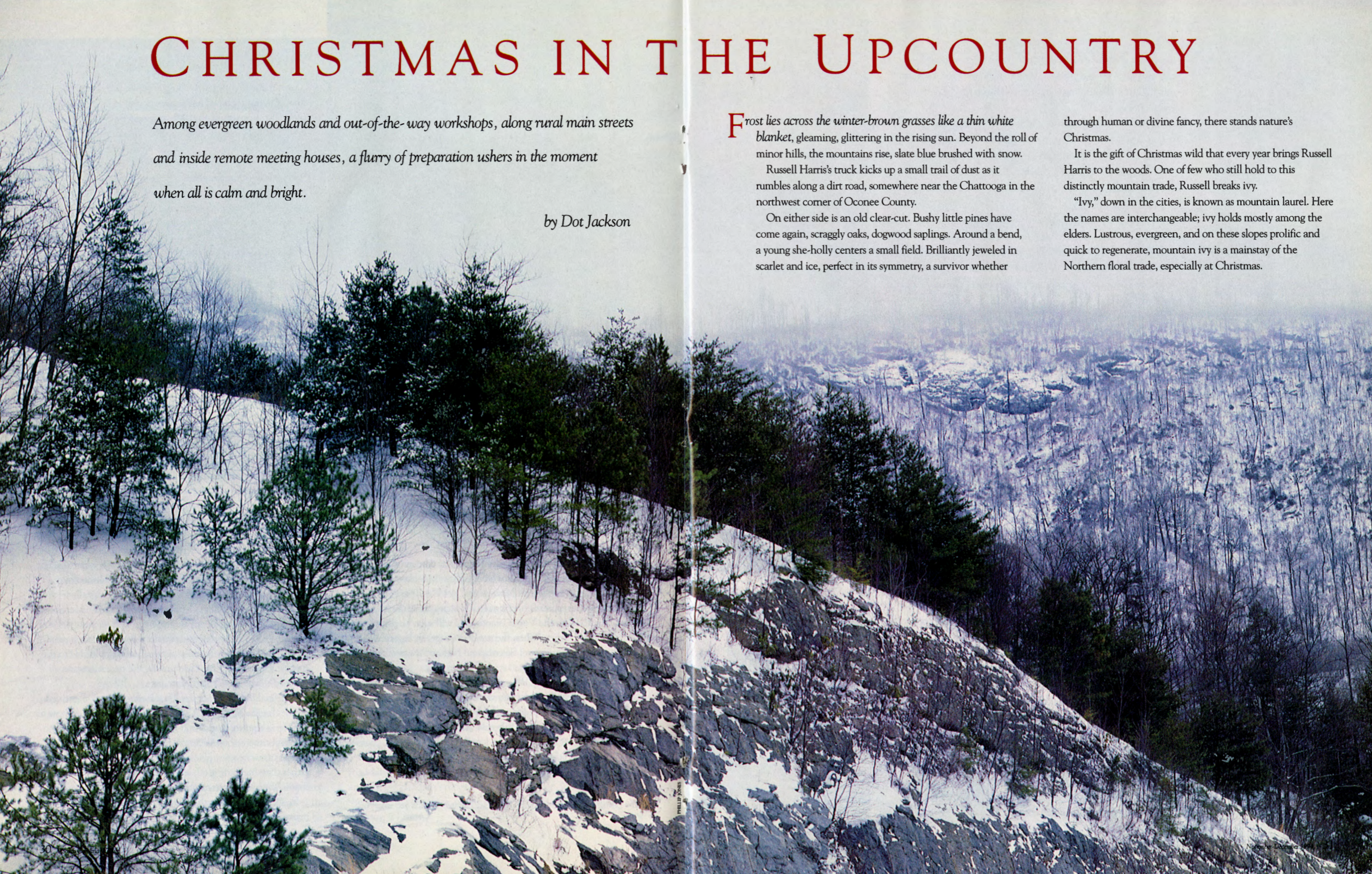
Russell Harris's truck kicks up a small trail of dust as it rumbles along a dirt road, somewhere near the Chattooga in the northwest corner of Oconee County.

On either side is an old clear-cut. Bushy little pines have come again, scraggly oaks, dogwood saplings. Around a bend, a young she-holly centers a small field. Brilliantly jeweled in scarlet and ice, perfect in its symmetry, a survivor whether

through human or divine fancy, there stands nature's Christmas.

It is the gift of Christmas wild that every year brings Russell Harris to the woods. One of few who still hold to this distinctly mountain trade, Russell breaks ivy.

"Ivy," down in the cities, is known as mountain laurel. Here the names are interchangeable; ivy holds mostly among the elders. Lustrous, evergreen, and on these slopes prolific and quick to regenerate, mountain ivy is a mainstay of the Northern floral trade, especially at Christmas.





Old-fashioned crafts and long-held traditions reign during the mountain holiday season. Each year Russell Harris secures a permit to gather mountain laurel for the Northern greenery market, while potter Carol Sutherland shapes works of art that find their way, boxed and beribboned, to many a Christmas celebration. Along Scenic Highway 11, the lights of "Aunt Sue" Ritter's collection of shops will blaze long after the sun sinks behind Table Rock.

Beside a stand of bare-limbed woods, Russell pulls the truck off the road. He takes out his folding lawn chair, a luxury touch in this up-and-down country, and heads for the dark green understory.

He is not far here from his farm home in the Whetstone community. "You won't lose me nowhere in Oconee County," he says, laughing. His hands are almost swifter than the eye amid the glossy greenery, flick-flick-flick, a handful of switches, then a bundle, then another, and another hit the ground.

He moves steadily from clump to clump, thinning but not stripping. "When I make a bale," he says, "it'll be fifty, sixty pounds." When he has worked the ridge and has a pickup load of bales, he will haul this day's harvest up to Lake Toxaway, where a big truck waits for gatherers fanned out over the western Carolinas. By night the van will be on the road, its cargo destined for holiday wreaths and mantel sprays in the frozen Northern cities.

Russell gets an annual gathering permit from the local forest ranger. Ivy is not considered endangered. As he says, "In two years it'll be brushed out again; it'll be thicker. You won't see that it was broke."

The vagaries of weather, crop and market and a profit he says wouldn't add up to minimum wage have made a big dent in the area's ivy trade. "Not too many people do it anymore. It used to be three or four big tractor trailer loads would go out of Salem every week."

But Russell has done this all his life. He says he likes the woods.

Juncos flit tree to tree, curious. Clinging dry leaves shiver in the sharp December breeze. Overhead, against the deep blue sky, a hawk drifts in circles on the scant new warmth of the morning.

A few miles south, under the distant arc of mountains, the foothills towns are waking, Westminster east to Gaffney. School buses unload, traffic bunches at the village stoplights, and old men gather at long tables in the backs of the cafes to savor steaming coffee and news neglected in the headlines.

Sometime around Thanksgiving — just ahead of Santa Claus and the Christmas Parade — the town truck with the cherry picker held workers aloft by night to hang from power poles the garlands, bells, bows, tinsel and colored lights of municipal festivity. Thenceforth, at least till New Year's, even the plain and utilitarian take on a magical warmth at sundown.

From the crests and outlooks in the highlands, the night lights of the Main Streets and their outlying domiciles twinkle far away, like stars in a rumpled cosmos.



PHOTOGRAPHS BY MICHAEL FOSTER

The mountain land itself, detached from most trappings of commerce, is decked out for the season in the shadowy green of hemlock, perfume of cedar, carpet of groundpine and red partridge berry, the frosty glow of persimmons still clinging to

bare trees like ornaments. But the building energy of Christmas is largely under wraps, in cottages and workshops across the countryside.

Potter Carol Sutherland is shaping grace on a pedal-driven wheel when morning lights the windows of her studio near Furman University and Paris Mountain, in Greenville County.

A cylinder of pallid, weeping clay whirls between her hands. As Carol talks, seemingly oblivious, the blob becomes a vase, acquires a lip, a handle, becomes a pitcher and joins other pieces drying, waiting upon glazing and the kiln.

Without a pause, she starts another. "I quit teaching in 1970," she says. "Quit to be a potter. They were going to send



guns and a few bands cut from an old inner tube, Goliath would have run for his life.

A couple of doors down, Eleanor Lewis of the Calligraphy House is helping a customer learn to make Christmas cards.

Eleanor went into business as a young, divorced mother who wrote poetry. She knew calligraphy; she had found her verses most marketable when she wrote them on plain canvas totes, beginning with "Writing is my bag . . ." Or "Gardening," or "Nursing," or a hundred other "bags."

But it didn't always work as dreamed. She remembers a big teachers' conference in town. "I took the grocery money and bought seventy-two bags," she says. "I wrote a poem about teaching, stayed up at night till I had finished every bag. Then somebody noticed I had misspelled 'exaggerated.'"

Despair. What to do? Circle that klinker in red! Teachers bought it.

Eleanor still does bags. She now has eight employees. But the shop's biggest draw is the stock of rubber stamps that has made her a major dealer in the Southeast. Her catalogues go all over the world. Customers come from everywhere. Eleanor,

born in the Bronx, raised in her father's native Easley, tells them with conviction, "South Carolina is my bag."

At the end of a dirt road at nearby Pumpkintown, John "Buddy" Cox, by profession a wastewater systems designer, and his wife, Nell, an English teacher, are over their heads in Teddy bears, dollies, skates and tricycles. A steady stream of pickups and vans brings more, more, more.

No one buys at this storehouse. Right up to Christmas Eve, volunteers will sort and bag donated toys and candy. Then in the hours before Christmas morning, these workers' vehicles will pull out in a startling caravan, headed for the hard-pressed homes of some 1,300 children in five counties, loaded down with the love of "Country Santa" and his helpers through the generosity of neighbors.

Buddy Cox, remembering a childhood of hard times, took up playing Country Santa fifteen years ago. The endeavor has grown so large that it has made the national press, and Buddy has been approached as the subject of a movie.

What really matters? He says quietly, "It's like the Christmas story, every time."

Snow begins to fall on Eastatoee on the morning of the McKinney Chapel Christmas Pageant. Big flakes fly on the rising, frigid wind as a team of neighbors garland the doorway of the century-old country church.

But by night, bitter gusts have blown away everything not secured — including snow. Angels in gauze and tinsel shiver on the steps, peeping hopefully through the door-crack for a sign, listening for the song that heralds their blue-lipped parade down the aisle to flank the Baby Jesus. A wayfaring beagle noses inside to look.

Robed shepherds dash around the churchyard, brandishing mill-spindle crooks until rounded up by pageant-mistress Georgia Chapman and her daughter Gail Edwards. In they go, announcing to the jam-packed pews, "Jesus is born! The baby's born! Come see him in the manger!"

The baby is real, four months old, quiet under the gaze of his real "Mary and Joseph" parents, Kim and Dale Cassell. "Joseph" sings a lullaby in a tenor so fine there is scarcely a dry eye in the house. "Baby Jesus" sleeps in heavenly peace.

He sleeps while the harmonica player and the choir and the piano with a touch of tin sing out the wondrous news. Even while Santa Claus romps through with sacks of fruit and candy for all, the baby sleeps, content with his pacifier, dreaming of angels beyond those gathered here.

Outside, even the wind has calmed. How still this valley lies tonight, under the brilliant stars. ❄️

Dot Jackson is a free-lance writer from Six Mile, who holds Christmas in her heart all year.

Outside McKinney Chapel, in northern Pickens County, chilled-to-the-bone shepherds and angels await their entrance to the annual Yuletide pageant. Buddy and Nell Cox, with



the help of their neighbors, pack toys and candy to make Christmas bright for needy families in five Upstate counties.

me to summer school, and I figured, well, I might as well get some fun out of it. I went up to the Penland School and got into a pottery course. It ruined me!"

As soon as she had the confidence to let go of a steady salary, Carol cast her lot with the pots, experimenting with pigments, glazes and shapes until her work took on a quality that has made her one of the region's most respected artists.

Some of these pieces will be trimmed with tiny clay birds, or the cobalt-tinted blue that is a Carol Sutherland signature before delivery to a gallery, and thence to someone's Christmas tree.

The sky is still streaked with rose and fire behind Table Rock in the evening when "Aunt Sue" Ritter turns on the Milky Way of Christmas lights that drapes her nest of rustic shops on Scenic Highway 11, above Pickens. The craftsfolk who run these distinctive stores, called Doll House, Basket House, Rock House, Rabbit House and so on, have gotten little respite between the leaf season throngs and Christmas shoppers.

Tom and Joan Rutledge are in their Wood House

assembling the stuff of Santa Claus. Area natives, the Rutledges were already well-versed in crafts when Tom, wary of increasing pressures in big industry, took early retirement from his corporate job, whetted his tools and began to turn out tables, chests, lap desks, trays and toys. Joan painted tole designs, doll faces, spotted wooden pups.

"We started out with in-home craft shows," Tom says. "Then seven years ago we got this shop." When Aunt Sue's is closed, between Christmas and late March, the Rutledges burn the midnight oil at their own remote "North Pole," near Lake Keowee.

What are the big sellers? The larger, decorative utility pieces bring in the most money, they say. But, Tom adds, "I'd say sixty to seventy-five percent of what we sell is homemade wooden toys."

What do kids like? (Pause.) "Well," says Tom, "I hate to say. But it's the wooden guns. The rubber-band guns, and slingshots . . ." Oh, if Little David had only had one of these

VARIETY

The Price of Life

*More than a lofty buzzword for upper-class birdwatchers,
biodiversity has down-to-earth importance for every living thing.*

by Bill Hilton Jr.

i *Imagine having only one television station to watch, or listening to just one song played over and over again on the radio, or wearing clothes that came in only one style and color. Or imagine having a "choice" of just one model when you purchased a new car. And what if everyone were the same height and weight?*

Imagine a society without different perspectives and ideas; it would be a society without growth or change. There would be no new inventions, no creative approaches to problem-solving, no intellectual or cultural improvements. If you can imagine a monotonous human society like this, you begin to get an inkling of why something called biodiversity is so important in the world of nature.

Biodiversity means a world in which there is a wide variety of living things, where growth and change constantly occur. If a place is biologically diverse, it supports many different kinds of organisms, whether plant or animal, fungus or bacterium.

In a sense, a locale with high biodiversity would not be "boring" to visit. Just as a diversity of music, books, TV shows, and encounters with other people entertain and broaden us as individuals, a biologically diverse location is filled with varied organisms and phenomena to learn from and observe.

But biodiversity isn't important just so the human observer won't be bored. Without biodiversity, the earth would be a vastly different and — many ecologists say — unbalanced, dysfunctional, unhealthy place. Without biological diversity and constant interaction between different kinds of living things, the natural world we know might stagnate and cease to exist at all.

In South Carolina, a small forty-acre woodlot that is biologically diverse may support seventy kinds of trees and shrubs, three dozen species of nesting birds, several kinds of wild mammals and reptiles, a sizable assortment of wildflowers and grasses, various mosses and ferns, plentiful spiders and butterflies, and nearly limitless soil bacteria and fungi. Biodiversity also implies that each of these species of organisms occurs in sufficient numbers to maintain its population.

One of the quickest ways to eliminate biodiversity is to remove the predominant plant community in a given area. For example, cutting down all the trees on our Carolina woodlot would eliminate habitat needed by other organisms that occur there

naturally. Here in the Palmetto State, plowing up natural grasslands, defoliating oceanside dunes, or destroying hedgerows around an old farm also removes locally dominant vegetation and diminishes biodiversity. Over time, disturbed habitats may regenerate themselves, but rare or delicate flora and fauna may be unable to repopulate an area and can be lost forever.

Some human endeavors are simply incompatible with biodiversity. Draining a bottomland swamp and replacing it with a mall and parking lot limits the diversity of the area to birds such as house sparrows and European starlings, to mammals such as Norway rats, and to such insects as cockroaches. For private landowners, even putting in a highly maintained lawn greatly reduces biodiversity. Mowers and chemicals may make the front yard lush and green, but what results is an unnatural, non-diverse assemblage of a few species of grasses and an occasional American robin looking for a worm that probably isn't there.

The difficulty in maintaining biodiversity is finding the balance between human activity and the needs of organisms in the natural world. Within South Carolina, this challenge falls in large part to the Department of Natural Resources and especially to the Heritage Trust Program. Wildlife Diversity Section Chief Tom Kohlsaas has placed a strong emphasis on maintaining biodiversity on public lands in the state, and he sees spreading the word about the importance of biological diversity as one of his agency's most important goals.

"On the very highest level," Kohlsaas says, "we need to maintain biodiversity in South Carolina and the rest of the world simply because it's the right thing to do. We're each linked to all the habitats and organisms in the state in ways we don't understand, and if we continue to destroy or eliminate what we have, we may upset the balance so badly that it can't be fixed."

Kohlsaas hopes his agency can educate the state's residents, governments, and businesses about the importance of biodiversity so that all future development and planning will be environmentally sensitive. "We want to reach the point," Kohlsaas says, "where we're not just reacting to building permits. In fact, we're already getting into partnerships with local and state governments to find ways people can make a living off the land without destroying biodiversity."

Destruction of one species often leads to the loss of another. The endangered red-cockaded woodpecker, for instance, owes its troubles to widespread clearing of mature longleaf pine forests.





PHILLIP JONES

As much a part of the forest as the trees themselves, an unnoticed army of tiny creatures form an irreplaceable link in our planet's life support system. Ecologists are only beginning to understand the ways Earth's myriad organisms, large and small, interrelate.

The best way to protect individual species, says Kohlsaar, is to protect their habitats, and not just in small segments. A good example of how things should work is the Greenville Watershed, an expansive 30,000-acre project in which many different players were involved. People from the DNR, the City of Greenville, The Nature Conservancy and Naturaland Trust all played important roles.

"Scientists made a quick inventory of living things in the watershed from bugs to trees," he said. "They confirmed what had been suspected for a long time — the watershed is an extremely significant old-growth hardwood forest, harboring a much richer diversity of life than is found on most adjoining land. They recommended full protection for the watershed. At the same time, Greenville public works officials felt that protecting the entire watershed was the best way to meet the city's long-term water needs and cheaper than selling it off and building a new filter plant. The project showed that maintaining biodiversity and ecosystem structure and function was at the same time a very wise business decision."

Kohlsaar also cites the federally endangered red-cockaded woodpecker as an example of the "new approach" to maintaining biodiversity. Previously, wildlife managers protected individual



PHILLIP JONES

nest trees in the South Carolina coastal plain in hopes that the woodpecker would be able to maintain its numbers. "Now we're looking at whole landscapes," he says, "and trying to provide incentives for land owners to improve and restore the entire native pine ecosystems so that we enable the birds to take care of themselves."

Protecting a large-scale habitat so that red-cockaded woodpeckers can "take care of themselves" indicates a new trend in endangered species protection. Historically, we have intensively managed individual organisms without always understanding how they fit into the big picture. Most ecologists believe that no matter how long we study a particular habitat or ecosystem, we may never comprehend how all the parts of the puzzle interact. What is apparent is that if we begin to lose the pieces, pretty soon the puzzle falls apart, and it's difficult to predict which pieces might be most critical.

Humans once insisted that the critical resources were those that had "extrinsic value" and were important primarily for economic reasons: A forest was valuable only because it sheltered deer that could be hunted for food or because it provided lumber that could be sold to build houses. However, in a modern ecosystem approach, land managers look not only at the economic value of a resource, but also at "intrinsic value" that does not refer to usefulness to humans. Under traditional management, the primary beneficiaries were always human beings, but under a philosophy of biological diversity, all species — humans included — stand to benefit.

One argument frequently used for protecting rain forests has been that one never knows when some tropical plant that goes extinct will take with it a potential cure for cancer. Many "miracle cures" used by twentieth-century physicians are indeed descended from herbal cures discovered ages ago by native peoples of the rain forest. Protecting tropical habitats for reasons such as this are valid, but most ecologists say it is time our worldwide philosophy shifted toward protecting the global habitat for its own sake.

As pieces of the puzzle, the temperate forests of Europe and Asia, the deserts of the American Southwest, the world's oceans, and our little forty-acre South Carolina woodlot are no more or less important than South America's rain forests. Whether we want to admit it or not, human society is also just one of the pieces in the complex master ecosystem we call Mother Earth. We humans have often seemed intent on gathering up the other pieces for our own short-term uses, but it's becoming more and more apparent that all or most of those pieces need to be in place if the planet is to function properly.

Here in South Carolina, as elsewhere, restoring and protecting biodiversity is the logical way to help ensure that Mother Earth stays healthy so humans and all other species will survive. Without biodiversity and a healthy planet, every organism is in trouble because — in the words of the Sierra Club — "There's no place else to go!" 🐾

Bill Hilton Jr. of York is a nature writer, ornithologist, and consultant in science education.

Athletic Animals



If football stadiums and deer stands are your favorite hangouts on fall Saturdays, this quiz is for you. Each of the following questions requires an answer that names or includes a critter that lives outdoors. For example: What animal was used in the common nicknames of Jack Nicklaus, Paul Bryant, and Sonny Liston? If your answer is "Bear," you can get out your compass, canteen and boots — we're heading into the woods. And don't forget to check Your Wildlife Rating following the quiz!

1. What bird is the adopted mascot of the U.S. Air Force Academy?
2. When a pitcher gives up a home run he is said to have delivered a _____ ball.
3. By what nickname are Milwaukee's players in the National Basketball Association known?
4. What animal do football officials resemble?
5. Temple University's athletes play under this name.
6. What National Hockey League team did Don Cherry coach?
7. What nickname did the followers of place kicker "Gerela" adopt for themselves?
8. Can you name a 1976 movie, starring Walter Matthau and Tatum O'Neal, about Little League players?
9. Lou Gehrig had more than one nickname. Which one fits this quiz?
10. What "Larry," all-star shortstop for the 1980 World Champion Philadelphia Phillies, had a last name that is also a snake?
11. Where do baseball's relief pitchers wait?
12. What "Dick" was light heavyweight champion in 1966?
13. This is the nickname of athletes from the University of Houston.
14. What river did daredevil Evel Knievel attempt to jump over, with live television coverage?
15. What was boxer Jake LaMotta's ring nickname? It was

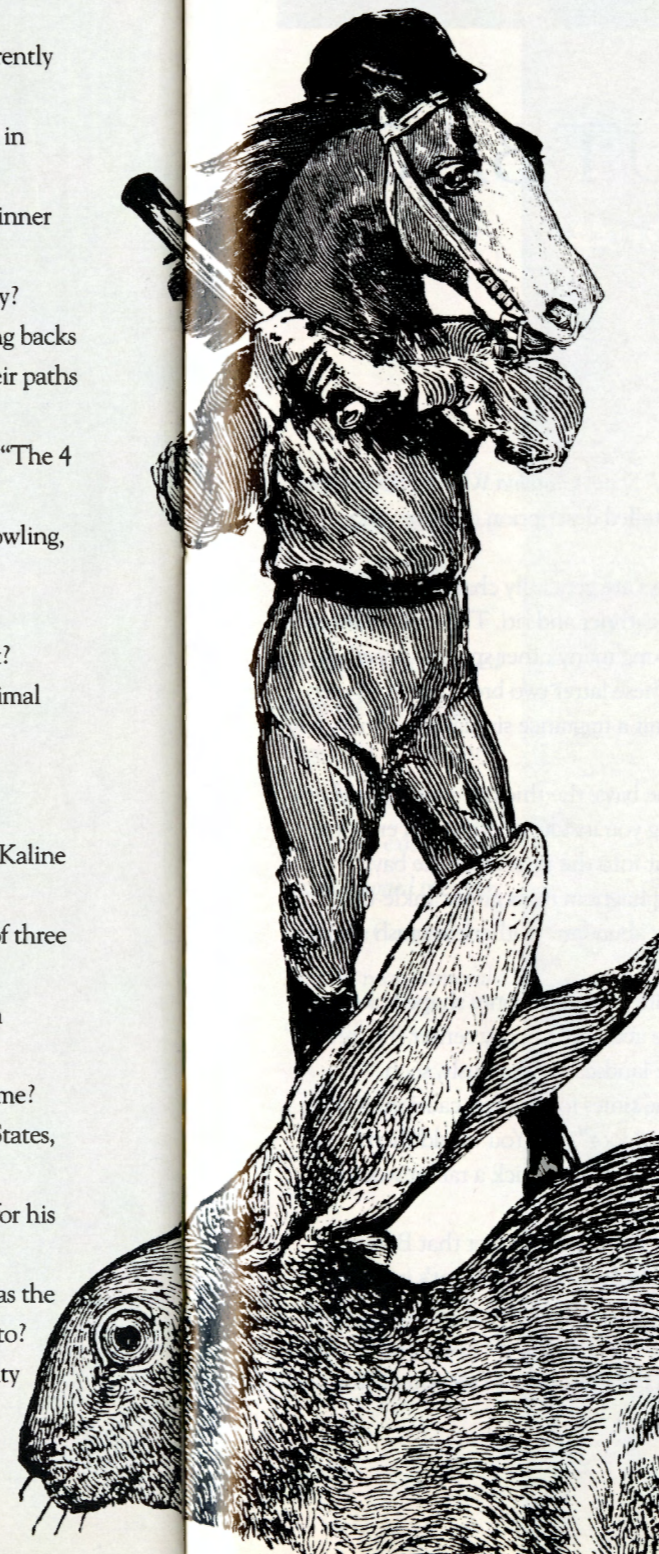
also the name of the movie based on his career.

16. What golf term, meaning "course," spelled differently but pronounced the same, is also an animal?
17. What football team is named for a cat that lives in Africa, Asia and Death Valley?
18. World class runner and Olympic Gold Medal winner Wilma Rudolph was called "The Black _____."
19. What is the mascot for the U.S. Naval Academy?
20. What term in football indicates that two running backs charge the line of scrimmage at opposite angles, so their paths cross? It's also an angry animal.
21. What was the line called that played in front of "The 4 Horsemen," but received much less publicity?
22. When one scores three consecutive strikes in bowling, what animal's name designates the feat?
23. What tag do we give to an athlete who is easily aggravated by fans' or opponents' jeering, and shows it?
24. What new NFL franchise is named after this animal some people call a "catamount"?
25. An athlete for Oregon State University has this moniker.
26. For which professional baseball team did Cobb, Kaline and Greenberg play?
27. This is the term used when a golfer has a score of three under par on a hole.
28. What's the nickname of athletes from Villanova University?
29. What is sports writer George Plimpton's nickname?
30. What individual sport, not seen in the United States, uses the terms "veronica" and "muletta"?
31. A player whose error results in losing the game for his team is called the _____.
32. Before becoming a coach of long tenure, who was the New York Yankee's shortstop, succeeded by Phil Rizzuto?
33. A Revolutionary War general and local university share this nickname.

Lions and Tigers and Bears . . . hurrah!

Here's a sports quiz for the outdoor enthusiast!

by Jack Connelly



Quiz Answers

1. Falcon
2. Gopher
3. Bucks
4. Zebras
5. The Owls
6. Boston Bruins
7. Gerela's Gorillas
8. Bad News Bears
9. Iron Horse
10. Boa
11. In the bullpen
12. Tiger
13. Cougars
14. Snake River
15. The Raging Bull
16. Links (lynx)
17. Clemson Tigers
18. Gazelle
19. A goat
20. A crossbuck
21. The 7 Mules
22. Turkey
23. Rabbit Ears
24. Carolina Panthers
25. Beaver
26. Detroit Tigers
27. Double Eagle
28. Wildcats
29. The Paper Lion
30. Bull fighting
31. Goat
32. "Crow" Crosetti
33. Fighting Gamecock(s)

Your Wildlife Rating

- 0 - 5. Stay out of the woods! Don't try to learn too much too soon. Make frequent trips to the zoo, and listen to what the children say about the various animals. On your summer vacation, try to find work on a farm — it's a safe way to study certain animals up close and personal. You're probably not ready for a subscription to *Sports Illustrated*. In your free time, and when you're certain you're not being observed, browse through the works of Dr. Seuss.
- 6 - 16. You can steal into the woods, but never alone, never at night, and always within sight of open fields or a sturdy shelter. Listen to sports talk shows on your car radio and consider subscribing to *South Carolina Wildlife* and watching worthwhile television programs (i.e., *NatureScene*). Use the magazine photos as flash cards, and record the TV show to replay while practicing the movements and sounds of the creatures of nature. Sleep out in your yard with a portable TV to watch Monday night football. Your goal should be to qualify as an independent and respected near-car-camper.
- 17-33. Congratulations! You are obviously an expert in the worlds of sports and wildlife, so start showing off. Wear khakis (with a rolled-up copy of *South Carolina Wildlife* sticking out of a pocket) and an SCW magazine cap wherever you go. Trade your family sedan for a four-wheel drive vehicle. Sell your home and buy season tickets to watch your favorite college and pro teams play. Stop thinking about climbing the corporate ladder at work, and start planning your first annual safari to Hell Hole Swamp. The natural world is your playground! 🐾

Jack Connelly is a free-lance writer who lives in Webster, New York.

At once menacing and alluring,
one of our wildest and least-known
natural sanctuaries lies hidden
in the back yard of our most visited
seaside city.



MYRTLE BEACH'S OUTBACK

by Glenn Morris

photography by Ted Borg

Steve Bennett bounces his Blazer to a halt beside a small pine tree flagged with hunter-orange surveying tape. I am his guest this autumn day in the wild domain of Lewis Ocean Bay Heritage Preserve, a 9,300-acre wilderness barely five air miles from downtown Myrtle Beach. Bennett, a biologist with the S.C. Department of Natural Resources, knows the property about as well as anyone who hasn't grown up next to it. When the vehicle stops, he jumps out to remove the streamer from the tree.

"This is about the only form of litter or abuse I ever find. Our enforcement team break their backs to help us stay on top of it. But it's so big . . ."

His voice trails away, carried by a breeze that rattles the persisting leaves of nearby oaks. For a moment, the wind is the only sound.

If the Everglades were twenty minutes from Walt Disney World, Florida would have the same juxtaposition of commercial and natural wonders that exists in Horry County. Just west of the famed Grand Strand's electric and eclectic sprawl, tucked between SC Highway 90 and the Atlantic Intracoastal Waterway, Lewis Ocean Bay remains as wild and forbidding today as it was two centuries ago when early map makers labeled it Impassable Bay. Wade into it, get snagged by the catbriers, and you'll call it worse.

Protected since 1989 by the DNR's Heritage Trust Program, Lewis Ocean Bay contains the most significant group of Carolina bays in the state. Carolina bays are elliptical depressions that occur in the coastal plain of both North and South Carolina.

(See "Landmarks of Mystery," *South Carolina Wildlife*, September-October 1989, for a more detailed description of these unique landforms).

In Horry County, these bays are generally characterized by dense thickets of fetterbush, catbrier and titi. Their thin canopy is primarily pond pine and, among many other species, sweetbay magnolia and loblolly bay. These latter two broadleaf evergreen trees with elliptical leaves emit a fragrance similar to culinary bay leaf when crushed.

If you probe into one of the bays, the thickets swish closed behind you like doors, sealing you inside an evergreen envelope. Then suddenly, you break out into the interior of the bay, exposed to the sky. Sodden sphagnum moss grows ankle-deep; fragile stems of the seemingly abundant leatherleaf brush against your waist.

Solitary pond pines, identified by their cones shaped like toy tops, or loblolly bays may rise above the boggy center. There's an astounding uniformity to the landscape. Curiously, such mesmerizing moments are the times for greatest caution: If you wander too far, you'll lose the "door" out. You would then have to bushwhack a trail through growth so thick a rabbit would bounce off.

The density is daunting, so formidable in fact that Bennett offers an honest admission. "We have no idea what's in the middle of some of these bays. We didn't know about leatherleaf until recently; it may be all over the place. It's just a matter of being at the right location at the right time to see something new. That's not easy here."

Encircled by sugar-white sand, oval basins known as Carolina bays leap from the landscape when viewed from the air (facing page). At least twenty of these striking landforms exist within a state-owned preserve in Horry County, some in near-primeval condition.





A spectrum of soils — from arid sands to sodden peat bogs — undergirds Lewis Ocean Bay Heritage Preserve, giving rise to a bouquet of floral surprises. White-flowering zenobia (near right) and titi (below, at right) flourish in wetlands, while rosebud orchids (far right) and grass pink orchids (center right) grow best in drier savannahs periodically swept by fire. Insectivorous Venus' fly traps (above) occupy the middle ground, or ecotone, between wetlands and sand rims

In autumn and winter, Lewis Ocean Bay is a study in edges. The evergreen pocosin vegetation of the bays stands out starkly beyond the leafless oaks and youthful longleaf pines that populate the nearly pure-white sand rims. In some places the edge of the bay seems abrupt as a brick wall erupting from the sand rims. You could run beside the vegetation chattering a stick as though you were racking the pickets of a fence.

In other locations, where the Carolina bay occurs in pine flatwoods and the sand rim is absent, the transition to the bay is less abrupt. These are the smeared edges, the ecotones, where soil moisture content gradually increases closer to the bay.

In one such place, void of shrubby growth and under a sparse cover of loblolly pines, Bennett reached down and parted the blades of wiregrass to reveal the light green leaves of a Venus' fly trap. Subtle gradations in soil chemistry mean that a few meters away, the rare plant might not survive.

"Lewis Ocean Bay is a mosaic of different plants and ecotones associated with a certain type of Carolina bay," notes Bennett.

His remark is not lofty "eco-speak," or jargon reserved for the environmentally enlightened; it takes mouthfuls to accurately describe the place. It's a paint-by-numbers landscape, where the colors are plant groupings and the edges between them have been smudged.

Bennett says there are actually four natural communities — recognizable groupings of similar plants — that coexist at Lewis Ocean Bay: wet peat bogs known as pocosins, dry sandhills, longleaf pine flatwoods, and blackwater streams. Each is so different that to move among them is to pass from one outdoor room to another.

These physically and botanically distinct groupings rub against one another and overlap in a seemingly nonsensical way when viewed from the ground. But aerial photography reveals the jumble of pieces fitting together into overlapping ellipses, the centers of which are peat-filled depressions, blanketed by different types of vegetation. Bright, glaring sandhills rim portions of some. Such photographs from high above the earth remind me of deep green, white-rimmed tiddlywinks spilled on the flat, coastal plain carpet.

"Most of the roads follow the sand rims around the edge of the bays where it stays driest," observes Bennett, as we bounce along one of the finely packed roads occasionally potholed with water-filled ruts. In the four-wheel-drive vehicle he is oblivious to the standing puddles — but then he never enters the preserve without an emergency radio. Once in, there is no other way to contact the outside world. It's close to pristine, changed by use but not degraded or destroyed.

"In here, the roads went where foresters needed to reach the timber, the driest places. Because of that access, the sand rim and the longleaf pine flatwoods have been altered the most."





What Lewis Ocean Bay lacks in postcard scenery, it makes up by hosting the botanical equivalent of an Easter egg hunt. The closer you look, the more you see. Timing can be everything.

The pocosin vegetation of the bays begins to erupt in March with a profusion of white bell-shaped flowers draping from look-alike leaves. Many of the pocosin plants are members of the heath family that includes blueberries, leucothoe, male-berry and native azaleas. Most of this showiness is over by the end of April.

My first foray into the bay was in mid-May, and its blooms were still bountiful. "That's a great time of year even though most spring flowers are already past," commented Bennett.

But one of the belles of the ball was out in full force — staggerbush, a spritely low-growing shrub that prefers drier locations at the edge of pine flatwoods. It dripped with blooms, and the bay vegetation was flush with soft new growth.

In a drainage seep beside the road, a pitcher plant piped above its boggy feet, and the last, fragrant blossoms of dwarf azalea faded in more wooded locations. The woods and open spaces fairly sparkled with floral welcomes.

That kind of show continues throughout the year — dainty surprises blooming their floral heads off, beside the bays, in the flat pine woods, certainly in the interiors of the bays. During summer, orchids rise above the pine flats and prickly pear cactus flower on the sand rims. While sweetbay and native azaleas perfume spring, loblolly bay sweetens the hot sticky air of July and August, when the place is least hospitable.

By the time Steve Bennett hosted me in late fall, a few brilliant

Cane Bay Creek, a small blackwater stream that drains several Carolina bays, flows northeast toward the Waccamaw River. Flanked by dense tangles of trees and shrubs, such streams provide safe passages for black bears moving between the river and the 9,300-acre preserve. Sweetbay magnolia, its brilliant fruit shown above at left, thrives at the edges of wetlands and piney woods and helped give the Carolina bays their name.

leaves persisted with their show. Lewis Ocean Bay was at last settling down for a nap. At least the plants were.

Underneath one of two transmission lines that slash across the preserve, we paused at animal tracks in the damp dark soil — deer, raccoon and black bear.

"I've only seen two bears," said Bennett. "We've seen tracks that indicate more, but who knows what's out there in the middle of this place . . . we could look forever and not see it all."

Or you could see everything you need to see without leaving the road. While it's not for everybody, as a Heritage Trust property, Lewis Ocean Bay belongs to everyone. 🐾

Glenn Morris is a free-lance travel and outdoor writer from Greensboro, North Carolina, and the author of North Carolina Beaches: A Guide to Coastal Access.

Accessing the Outback

It is only a partial joke that one of the mysteries of Lewis Ocean Bay is "Where is it?" The best answer: due east of Nixonville, although the most passable road to its interior is opposite the entrance sign of Wild Horse Subdivision about six miles north of US Highway 501 on SC Highway 90. At present, no signs obviously denote the preserve's boundaries.

Within its boundaries, Lewis Ocean Bay is both large and deceptively disorienting. If you leave your vehicle and prod, plod or slosh into its vastness, it can pose a formidable navigational challenge. The place seems to swallow signs of human presence: the roads pass through repeating patterns of vegetation that look enough alike to make you feel as though you're in an outdoor hall-of-mirrors.

The preserve is open daylight hours throughout the year, although movement is controlled by gates on the roads serving the interior. More importantly for preservation's sake, much of the land is inaccessible except by foot.

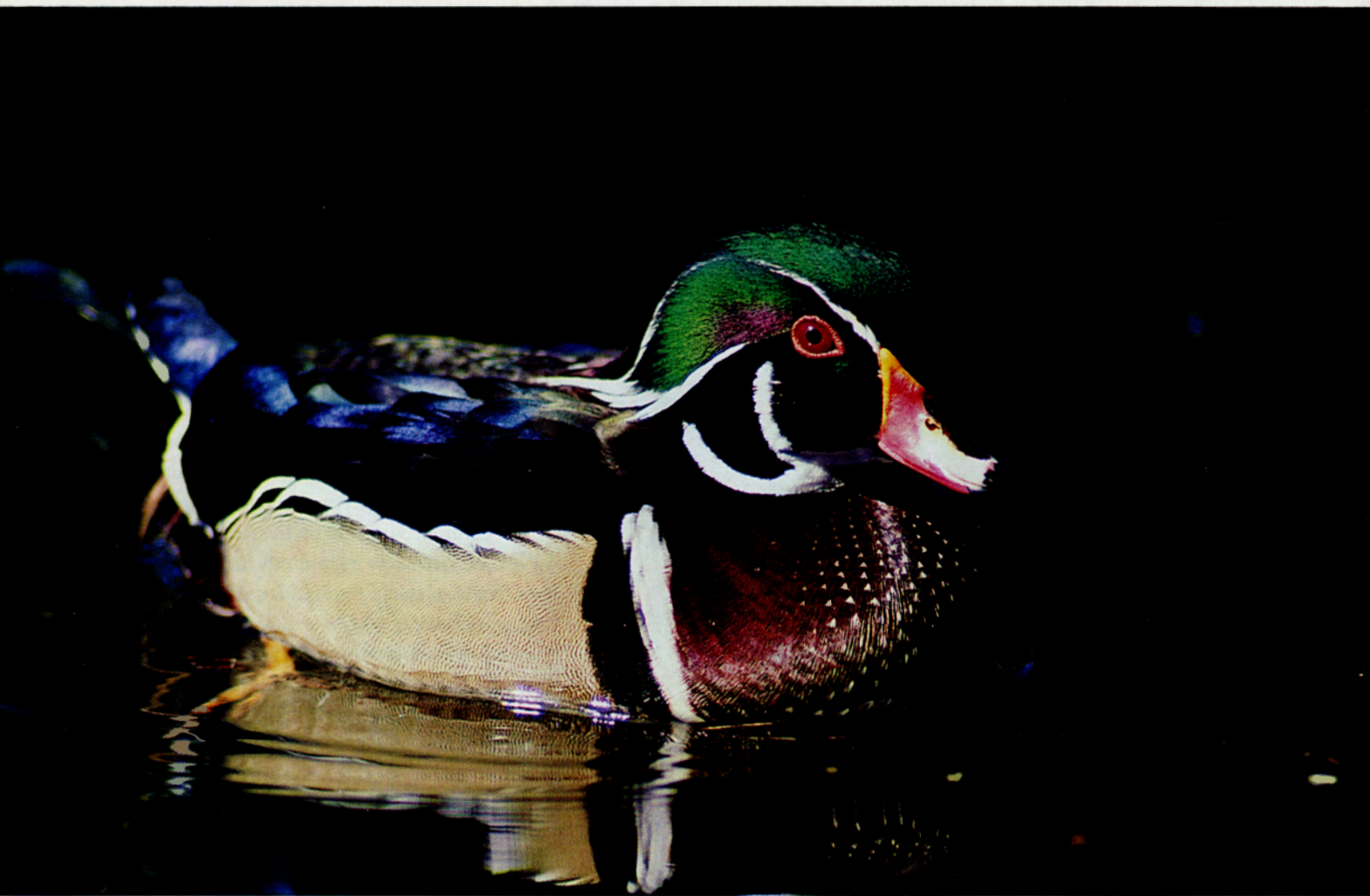
Most visitation to Lewis Ocean Bay Heritage Preserve probably occurs during hunting season, although this is difficult to accurately gauge. The 9,300-acre preserve is simply too big, too wild, too remote and too impractical to precisely regulate and document visitation.

Heed this warning: Lewis Ocean Bay is not for everybody. Depending on your frame of reference and the time of year you visit, there's either not much to look at or you can't see enough to satisfy your curiosity.

If you decide to visit, rest assured that this remote preserve will have neither a line waiting for admission nor an illuminated sign stabbing the night sky. While new visitors will increasingly meet its wonders as funds for interpretation become available, traditional users, such as hunters, will always have access in season.

For additional information, contact S.C. Department of Natural Resources, Nongame and Heritage Trust Program, P.O. Box 167, Columbia, SC 29202, (803) 734-3894. 🐾

Wood Ducks



I'm easing up the creek when two bundles of feathers explode off the water twenty yards ahead. Suddenly a pair of wood ducks come screaming down the ravine like those little fighters Luke Skywalker flew in *Star Wars*. Swift and steady, white bellies and dark wings flashing, they take the corner and whistle by, flying out across the river that joins the creek, their *hoo-eeek* cries trailing behind them.

Wood ducks have been clocked at forty miles per hour, which isn't exactly warp speed, but it will widen your eyes considerably when you're canoeing on a lazy afternoon. They're every bit as memorable sitting still, although there you trade in the space-jock image for that of a costumed '50s street tough with a swept-back D.A. haircut and a fiery

red stare. The startlingly incongruous elements that go into a wood duck's appearance — bold white stripes, cream-colored spots on a burgundy breast, a bill that looks like it's been dipped into four different paint cans — make the drake look like a bridegroom gone overboard. I'm not the first person who's noticed; the bird's scientific species name — *sponsa* — comes from the Latin word for *betrothed*. The female is a much more subdued but still attractive bird with a bright white eyestripe.

Wood ducks live year-round in South Carolina, and they're the only ducks that regularly breed here in abundance. Females can relocate the tree where they were hatched and generally set up their own nests there or nearby, in tree cavities. They especially like the leftover holes of pileated woodpeckers, birds nearly as gaudy and striking as themselves, or man-made nesting boxes will do. Within a day after the eggs hatch, the ducklings, using the claws on their webbed feet, climb unsteadily to the nest hole opening and throw themselves out as their mama calls from nearby. Unable to fly, they plop in a relatively undignified manner onto the forest floor or into the water below, avoiding injury only because they're light, cushioned, and trussed internally by flexible bones.

They are also, apparently, quite tasty. Despite the fact that they're generally paddling around behind an attentive hen, snakes, owls, hawks, egrets, herons, snapping turtles and even large fish take their toll. Those that make it sixty days or so can fly from trouble.

Spilling out of trees shortly after hatching isn't the only unducklike behavior associated with woodies. They perch in trees and eat acorns, beechnuts and hickory nuts, along with more traditional aquatic vegetation like duckweed and frogs-bit. They're reclusive, and we have less information about them than about many species, but that's almost as it should be.

This is a bird that was meant to be come upon by surprise, as it dodges trees under a forest canopy like a Jedi knight or paddles about like a technicolor James Dean wannabe. Either way you see it, spotting a wood duck gives a pure outdoor thrill. 🍄

— Rob Simbeck

Rob Simbeck lives in Nashville, Tennessee, and writes for a number of state and national publications.

Wood duck, *Aix sponsa*

Description: Showy male duck beautifully multi-colored in iridescent green, purple and blue with tan breast and red eyes; female more subdued but with distinct white eye ring. Length, 17 to 20 inches; weight, 1 to 1 1/2 pounds.

Habitat and Range: Wooded streams, rivers, ponds and swamps. Occurs throughout the eastern United States; permanent resident in South Carolina.

Habits and Behavior: Nests in tree cavity, 5 to 50 feet or more off the ground, or in man-made nesting boxes fitted with dome-shaped predator guards. Lays 10 to 12 dull white 2-inch eggs; incubation 30 days. Hen flies into nest hole at great speed, then simply disappears into cavity. Hatchlings jump from nest opening to ground or water below. Population probably at an all-time high because of habitat management and the widespread availability of man-made boxes. Known locally as summer ducks, wood ducks account for 45 to 60 percent of hunters' bag in South Carolina.

Recommended Viewing Sites:

- Francis Beidler Forest, Dorchester County, 462-2150.
- Donnelley Wildlife Management Area, Colleton County, 844-8957.
- Fants Grove Waterfowl Area, Clemson, 654-1671.
- Lake Wallace, Marlboro County, 479-3312.
- Broad River Waterfowl Area, Fairfield County, 427-4771. 🍄



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Within earshot of the heavy thud of artillery on Fort Jackson's practice range, and only a few minutes from the homes of half a million people, Sesquicentennial State Park offers Richland County residents and visiting folks a green oasis on the threshold of the state's biggest city.

Purchase of the land for the park in 1937 was made possible by the sale of special half-dollars minted for the city of Columbia's 150th anniversary, leading to its name. Once a cotton field, the park was planted in trees, the lake formed, and the buildings constructed by Civilian Conservation Corps workers, just as in many other parks in South Carolina.

Located just off US Highway 1 (Two Notch Road), three miles from I-20 northeast of Columbia, Sesqui's 1,400 acres embrace two completely different types of habitat: sandhills and wetlands. A stop at the park's nature center and an almost-two-mile hike around Lake Sesquicentennial let visitors sample both.

1 Follow the paved road all the way into the park, passing natural features typical of the sandhills — longleaf pines, turkey oaks, persimmons and white sand. Sharp eyes may glimpse fox squirrels foraging in the pine straw. Pass the old fire tower, closed since the advent of aerial fire surveillance but still commanding a breathtaking view of the city of Columbia, and the log house and conference center on the left. (These buildings will be visited later; see #6.)

Stop at the roomy parking area near the picnic grounds and lake. Today's visit might include lunch under the fragrant pines, before beginning the tour. A building at the far end of the parking lot houses the nature center, and its exhibits are open for inspection Monday through Friday, 1:00 to 5:00 during the winter (all day Thursday through Sunday in the summertime). Inside the nature center, native fish, reptiles and amphibians swim and slither in their protective cases, and a touch table gives visitors young and old the chance to feel snakeskins, turtle shells, skulls and the plaster casts of animal tracks.

Old photos on the walls trace the park's history, from its CCC birth through its heyday in the 1960s, when local folks thronged the lakeshore. Examples of the types of bird nests found at Sesqui rest in a case below a back window, and just outside a habitat garden and bird feeder lure winged residents within visitors' sight.



Bridge at lower end of Lake Sesquicentennial.

2 Exit the nature center and cross the shady picnic grounds toward the 30-acre lake, passing the playground equipment. Generally this is a quiet place, especially during the week, with only the sound of birdsong accompanying the sights of the outdoors. Step onto the hiking trail that skirts the water and follow the lakeshore to the right, past Picnic Shelter 1. Bats roost beneath the shelter's tiled roof, flying in and out at dusk, swooping out over the lake to feed. Quiet listeners may be able to hear them scratching and moving about during the daytime. Shelter 2, behind this building, has a ball field and play area, and both shelters, like two others in the park, can be reserved.

The sandy trail curves around the lake's cattail-lined lower end, and soon the chatter of rushing water drowns out all other sounds. Two lovely cascades, thoughtfully incorporated into the lake's spillway by CCC workers, create a soothing, musical setting. The round, dark-green leaves of water penny and fragrant water lily float where the water is still, as well as at many other places along the lake's shore. A great live oak spreads its branches like a giant umbrella to shade this pretty waterway, and more live oaks, some riddled with holes pecked by sapsuckers in their quest for insects, flank the walkway leading to the bridge.

Cross the bridge (reported to be a catfish hot spot) and mount the steps to pass another picnic shelter that can be accessed by way of the park's loop road.

Pass Shelter 4, scanning the woods for wildlife. Grey squirrels' lofty nests should be easy to spy high in the leafless trees. The trail may hold signs of some of the other critters that live in the park: deer, raccoons, opossums, skunks, foxes, and possibly even bobcats.



Jackson Creek spills from the park's lake to flow toward Columbia. Inkberry shrubs, the leaves reputed to offer a good tea substitute, line several sections of the trail.



3 The walkway winds around shortleaf and loblolly pines and blackjack oaks with their large, fiddle-shaped leaves, through an understory of dogwoods and other small hardwoods. Sassafras, a plant that wears three distinctly different leaves at the same time — some with three lobes, some with two, like a mitten, and some all of one piece — grows here and at many other places along the trail.

Within a few steps of the picnic shelter, a small opening in the trees offers a fine view of the lake and a willow-shaded island where Canada geese nest. A peninsula splits the upper end of the lake, forming a cove at its right where buffleheads, hooded mergansers, wood ducks and many other kinds of waterfowl congregate in winter. To the left of the peninsula, where Jackson Creek enters the lake, cormorants and wading birds frequent the shallows.

The trail next begins a roller coaster pattern that continues nearly all around the lake, descending quickly into low, wet terrain, then rising to higher, drier ground. Sometimes the difference in elevation may be only a matter of inches, but the vegetation changes dramatically. Since the path traces the border between sandhills and wetlands, sparse dry pine woods often stand to the right of the walk, with dense wet-loving shrubs growing opposite. These wetland plants include many of the species along this portion of the trail: a scrub-oak forest, with red bays scattered among the larger trees, as well as titi (pronounced tie-tie). Clethra, another wetland plant known variously as sweet shrub or sweet pepperbush, puts forth serrated, ovate leaves that “suds” when rubbed between the hands, leading to yet another of its nicknames, “poor man’s soap.”

Passing beneath some pines, the trail narrows and the ground shows signs of hungry squirrels’ activity — pine cones gnawed to the core. A trickle of water crosses the walkway, and a thick hedge of inkberry, a type of holly, nearly forms an evergreen tunnel. Also known as gallberry, this plant’s fruits provide food for songbirds, bobwhite quail and wild turkeys. At the right, a short path leads up to the loop road; check it out and plan to

Island; willow trees.





Sesqui's two-mile trail winds along the sandhills that flank the park and drain into the wetlands at its center. Near the upper end of the lake, hikers may spot the perennial plants called elephant's foot, their elliptical leaves growing flush to the ground (right).



come back another time and walk or jog its four-mile distance.

Yucca, or Spanish bayonet, a dry-habitat plant, can be seen on one side, with more titi, a wetter shrub, on the other. Catbrier and muscadine grapevines trail across the ground and twine around the trees. As the trail proceeds into a typical sandhills area, dry brown fronds of bracken fern contrast sharply with the clean white sand, like artificial plants sprouting at the beach. This fern emerges silver-green in the spring, becoming deeper verdant as the weather warms and withering to its sere appearance by late summer.

Dead trees, some standing and others fallen to the ground, make a common sight in the park, victims of Hurricane Hugo's tornadic winds five years ago or, more recently, of pine borer beetles. Woodpeckers and termites relish such decaying snags and logs, found mostly near the lake.

4 Farther along the soft, sandy trail, a firebreak leads off to the left, but a log warns hikers that it's a dead end. The calls of great horned owls, nocturnal birds that nest in mid-winter, may be heard in this area, particularly on an overcast day. Wintertime offers fine birding, and visitors should scan the trees and shrubs for nuthatches, chickadees, cardinals, titmice, brown thrashers, goldfinches, pine warblers, and both ruby-crowned and golden-crowned kinglets. Alongside the trail watch for the small shiny leaves of sparkleberry bushes and note if the birds have left any of the shrubs' dark berries.

Cross a boggy area over the makeshift bridge constructed of railroad ties, and follow the trail as it moves through alternating wet and dry terrain. Cut through a small clearing sprinkled with short stalks of switch cane; in the spring and summer this same place bursts with royal and cinnamon ferns. At a waist-high pine stump a path leads off to the left, down to the lake, but we'll keep to the right and wait for the next opportunity to head toward the water.

Around the bend stands mature forest, with large pines and maples. Twin hardwoods lie side-by-side on the ground, their large root systems tipped up and exposed. Holes and tunnels dug by animals furrow the dirt remaining on the roots.

Take the next branch of the trail to the left, a well-traveled path that leads through a cleared area known to park staff as the Boy Scout Area (although the scouts no longer camp here). At the end of the point, the cove can be surveyed for waterfowl from a pathway on the left, and Jackson Creek's entry into the lake can be observed through a little opening on the right.

A return to the main trail affords hikers the chance to get acquainted with tupelo or black gum trees, their broadened, buttressed bases signaling an adaptation to life near the water. More railroad-tie bridges ease the passage through this wetland, and as the trail again climbs to drier ground, watch on the right for curious depressions, about ten feet long and a yard or so deep. During World War II, soldiers held maneuvers here, and these foxholes remain from their training. Several of these appear along the rest of the trail. Listen, too, in this area, for the hammering of several kinds of woodpeckers — hairy, downy, red-bellied, red-headed and pileated — and common flickers as they search for insects in the trees.



1756 log cabin, Richland County's oldest structure.

5 At a clearing where one great pine tree grows and another lies fallen, roots-up, check low to the ground for a small plant with dark green leaves veined with white. Often called pipsissewa, it's also known, oddly enough, as spotted wintergreen, even though it's clearly striped, not spotted. Also look closely for dried flower stalks of the elephant's foot plant, each bearing a trio of star-shaped flowers. These bloomed purple in the summer and early fall, springing from basal leaves that hug the ground.

Immediately beyond this clearing, the habitat becomes wet again, with deciduous vegetation. The trail presses close to an amazing quadruple tulip poplar at its right, four mature trunks thrusting upward from two joined bases, the tree apparently influenced to grow this unusual way early in its development. Across the path and a little farther along, the soil lodged within the roots of another tipped-up tree resembles chalk but is really clay, common in the wet areas.

Cross the boardwalk, moving through jungle-like vegetation. Red bays, the undersides of their fragrant leaves furred with red, border the path here. If raccoons, opossums or foxes have been here recently, their presence may be betrayed by the persimmon-seed-laden scat they leave behind. Summertime visitors to this part of the park should see netted chain fern in abundance.

Just beyond the boardwalk, take the left fork through an area dominated by loblolly pines and dogwoods. At this point, climb over the large log that blocks a trail to the left and walk through a clearing where you might catch the scent of deer, as they often bed down here. This trail follows Jackson Creek and ends at a small dock crowded by alders, their tiny cones and catkins decorating the shrubs. The dock offers another quiet birding spot as well as a place to observe bats at dusk during warmer months. Lily pads and the triangular heads of turtles appear on the water's surface, and jumping fish ripple the lake. The melody of a Carolina wren may split the silence, or perhaps the breeze moving through the trees creates the only sound.

Break your reverie and return to the main trail, again clambering over the big log. Cross two short boardwalks, then a third that passes over the small blackwater creek that is Jackson. Beneath the fifth small boardwalk, a clear-water

stream with a white sandy bottom contrasts with Jackson Creek's dark flow. This creek originates at a natural spring and centers one of the park's unique features: an Atlantic white cedar bog. These trees, uncommon in the area and quite different from our common red cedars in bark and foliage, grow along the water just up- and down-stream from the trail.

6 Cross the clearing and climb the steps. Take a right turn (rather than going straight or to the left) and follow this trail along higher ground until you pass near one of the park residences and reach the log cabin and the large conference facility behind it. The log house, Richland County's oldest building, dating back to 1756, offers a good example of German log construction. Discovered in 1961 when several old houses were being demolished, it was relocated to the park, where it was restored. An artist, Campbell Frost, now has his studio and gallery inside, and visitors are welcome by appointment or anytime the artist is present.

The conference center — complete with dormitory-style rooms, a large kitchen and meeting area — may be rented by groups wishing to convene close to outdoor recreation opportunities. Beyond this building stands the state park training center, used by park personnel from all over South Carolina.

Return to the main trail, turning right at the point where you previously mounted the steps. The walkway alternately widens and narrows, passing low sparkleberry shrubs, some with fruits still clinging to their spindly branches. Loblolly pine straw blankets the ground, and the lake is left behind as the trail follows a slope, then ascends a set of steps to emerge near a sandy parking lot. Rectangular blocks marking its edge are more evidence of CCC handiwork. The men used what resources were at hand, and since sand was plentiful, concrete provided a sensible building material.

The large white bathhouse, between the parking lot and the lake, was another of their projects. Closed now for the winter, the snack bar and gift shop bustle with activity during the summer months, as does the grassy beach.

If you waited until after your hike to picnic, retrieve your cooler and pick out a table. Or return to the nature center and check on the programs available. In December, the park naturalist has scheduled activities for the very young (Time For Tots will examine animal paw prints), children 7 to 12 (exploring flight, speed and motion), and kids of all ages ("Living Green" and "Holiday Treasures"). Call the park office at (803) 788-2706 between 11:00 a.m. and noon or 4:00 and 5:00 p.m. for details on registration for these and other programs, or for information on camping at one of the park's 87 sites. Or write Sesquicentennial State Park, 9564 Two Notch Road, Columbia, SC 29223. Park hours are 8 to 6 in the winter and 7 to 9 during the summer; a nominal parking fee is collected in spring and summer. 🐾

— Linda Renshaw

Field Trip acknowledges with thanks the assistance of Tammy Sutherland, Sesquicentennial State Park naturalist.

ROUNDTABLE



Migratory waterfowl numbers are up by 24 percent this year, the highest in nearly a decade. Biologists credit the surge to abundant rainfall and protection of wetland habitat.

OUTLOOK BRIGHTENS FOR DUCKS

More ducks are headed south this fall than have made the annual journey during any of the past 10 years, jubilant wildlife officials report.

Plentiful rainfall in prairie Canada and the north-central United States during last spring's waterfowl nesting season helped produce a bumper crop of ducklings and launch the largest population of southbound birds in a decade. Wetland conditions across much of North America's prairie pothole region reportedly were the best in 20 years.

The total number of ducks flying south this year is expected to top 70 million, up from 59 million a year ago.

Nine of the 10 most abundant duck species made double-digit gains compared to last year. For instance, mallards, North America's most common duck, jumped from 8.8 million in 1993 to 12 million this year.

In addition to favorable weather, land removed from agricultural production under the federal Conservation Reserve Program contributed to the surge in nesting success, wildlife officials said. Since 1985 more than 36 million acres of U.S. farmland have been set aside or planted with waterfowl-friendly vegetation.

The upswing in duck numbers prompted South Carolina's natural resources board to grant waterfowlers 10 extra days to hunt this year, including more days during the Christmas holidays. Season dates are Nov. 23-26 and Dec. 16-Jan. 20.

The statewide bag limit remains three ducks per day, the same as in recent years, but with an added bonus this season of one canvasback allowed in the daily three-bird bag. Federal authorities lifted the ban on shooting canvasbacks earlier this year in response to a steady rise in their population.

Despite the rosy outlook for the 1994 fall flight, biologists with the U.S. Fish and Wildlife Service cautioned that one good season doesn't constitute recovery. Several years of favorable conditions will be necessary to reverse the long-term slump in duck numbers brought about by prolonged drought during the 1980s and intensive agricultural practices that severely reduced the amount of wetland habitat available for waterfowl. 🐾

DNR BOARD CHAIRMAN AWARDED ORDER OF PALMETTO

The chairman of the state DNR board has been awarded the Order of the Palmetto, the highest honor given to an individual by the governor of South Carolina.

Marion T. Burnside, chairman of the agency's board since 1988, received the award from Gov. Carroll Campbell for his many years of volunteer service in the protection of the state's wildlife and marine resources.

The Order of the Palmetto was established in 1970 by the governor at the time, John C. West, to distinguish individual South Carolinians for outstanding service or friendship to the state.

"Marion Burnside has devoted a large portion of his life to wildlife conservation," said James A. Timmerman Jr., director of the S.C. Department of Natural Resources. "He is a true steward of South Carolina's natural resources."

Burnside was recently appointed to another term as chairman of the Natural Resources Board, the governing body of the agency. Formerly an automobile dealer and automotive parts wholesaler, Burnside is semi-retired with a continuing interest in real estate and farming.

He has received numerous awards from conservation organizations, including the Havilah Babcock Award from the Midlands Chapter of Quail Unlimited in 1986 and a commendation from the South Carolina Chapter of The Wildlife Society in 1988. 🐾

UPSTATE BEAR CASE SETS NEW HIGH FOR PENALTIES

An Oconee County man has been given the harshest penalties ever handed out for illegally killing a black bear in South Carolina: \$3,500 in fines and restitution, nine years' suspension of hunting and fishing privileges, 160 hours of community service, and 10 days in jail.

Randy Lee Roach, 33, of Mountain Rest, pleaded guilty this fall to killing a black bear out of season, possession of a bear out of season and hunting under suspension in the 10th Circuit General Sessions Court in Walhalla under Judge Alex McCauley.

Roach was apprehended by an enforcement officer with the state DNR. Sgt. Mike Hardy of Seneca and an Oconee County sheriff's deputy were responding to an anonymous tip when they spotted an obviously overloaded car with red splotches around the trunk. The officers made a traffic stop and searched the vehicle, finding the 400-pound bear in the trunk. A loaded shotgun and rifle were in plain view in the front seat, according to the officers' report.

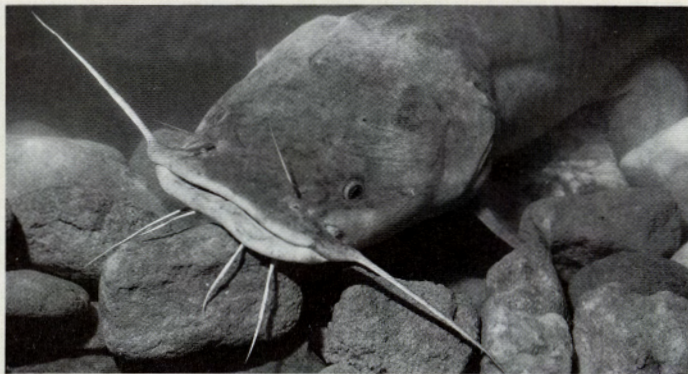
After his guilty plea, Roach was sentenced to two years in jail suspended to serving 10 days on weekends, given a

\$2,000 fine, ordered to pay the S.C. DNR \$1,500 in restitution for the bear, and ordered to perform 160 hours of public service. The guilty plea will result in suspension of Roach's state hunting and fishing privileges for a nine-year period.

The Oconee County ruling comes on the heels of a June 1993 case — the first instance of restitution for a bear — where a Williamsburg County man was ordered to pay \$2,500 restitution for a bear he shot and killed out of season. He was also fined \$500, forfeited the weapon used and had his privileges to hunt and fish suspended for three years.

Passed in 1990 at the urging of bear hunters and conservationists, South Carolina's tough bear poaching law calls for a minimum \$1,500 restitution payment to the DNR by persons convicted of killing bears. Unlike fines, restitution money goes directly to research, management and protection of wildlife.

Violators of South Carolina's wildlife protection laws can be reported 24 hours a day, seven days a week to Operation Game Thief dispatchers. Citizens can report violations or provide "tips" anonymously and may receive a reward of up to \$500 if an arrest is made. The number is 1-800-922-5431. 🐾



Flathead catfish may be ravaging the Edisto River's celebrated redbreast fishery. Studies here and in other states show that as flatheads multiply, other sportfish populations dwindle.

PREDATORY CATFISH PUTTING BITE ON EDISTO REDBREASTS

Catfish not native to South Carolina may be chewing up the Edisto River's famed redbreast fishery, and state DNR freshwater fisheries biologists are closely monitoring developments in the Lowcountry river.

Flathead catfish, originally brought into South Carolina in 1964 from Arkansas as a trade for South Carolina striped bass, were stocked into lakes Marion and Thurmond, said Chris Thomason, DNR fisheries biologist based in Barnwell.

Voracious predators that feed mainly on smaller fish, flatheads have flourished in both Santee-Cooper and Thurmond and provide a substantial commercial and trophy sport fishery. Because of the tremendous numbers of herring and shad for flatheads to eat in these systems, little impact has been seen on other sportfish populations there.

From 1989 to 1991, DNR angler surveys on the Edisto River showed that flatheads had

somehow become established there, according to Thomason. "Since the DNR did not stock flatheads in the Edisto," he said, "we can only speculate that they were introduced to the Edisto system by some ill-advised individuals. Anglers should not attempt to transfer flatheads to other river systems in the state."

Lowcountry anglers have noticed a decline in the sport fishery for redbreast sunfish in recent years, as well as a drop in harvests of American shad. Fall electrofishing samples conducted last year by the DNR showed that redbreast populations were lower in areas of the Edisto where flatheads are most abundant.

Anglers are so concerned about the redbreast fishery that they have petitioned the DNR to schedule a public meeting to discuss the decline. Freshwater Fisheries Chief Val Nash said such a meeting will take place early this winter.

DNR biologists are now investigating the extent of the flatheads' range in the Edisto River and gathering data on the basic biology of the species. 🐾



OPERATION GAME THIEF

1-800-922-5431

STOP GAME AND FISH VIOLATORS.



Ready for deployment to a coastal fishing site, concrete spheres known as reef balls attract fish by providing hives of hideouts on an otherwise featureless sea floor.

FISH ATTRACTORS TESTED OFF S.C. COAST

Experimental concrete fish attractors called reef balls have been sunk off South Carolina's coast as part of a nationwide project to evaluate the effectiveness of the units.

Reef balls are hollow concrete structures three to six feet in diameter that are molded around a reusable, inflated bladder. This fall, about 120 reef balls of three different sizes were sunk on the Kiawah Reef southeast of Charleston.

"The high-profile design of the reef balls and the many access holes in each unit make these ideal fish attractors," said Mel Bell, manager of the state DNR's artificial reef program.

Bell said Reef Ball Development Group of

Doraville, Georgia, furnished the DNR free use of 12 molds to produce the reef balls. In return, the agency will conduct a multi-year study to assess the effectiveness of the modules.

"The company provided us with the molds for sixty days, so our only cost was the concrete and transportation to the reef," Bell said. Revenue from the sale of saltwater fishing stamps was used to build and deploy the units.

"We plan to monitor the reef balls over a period of years to see how well they attract fish and other marine life," Bell said.

South Carolina is the second state to participate in the experiment. More than 300 reef balls were recently added to artificial reefs off the Florida coast. 🐟

FREE PHONE CALL OFFERS WEALTH OF FISHING TIPS

Want to find out what lures largemouth bass are hitting this week at Santee Cooper? Or where the trout are hiding up in Lake Jocassee? Or the whereabouts of the nearest boat landing on a given stretch of river?

All this information and much more is now available 24 hours a day to any angler anywhere in South Carolina. All one has to do is pick up the phone and dial 1-800-ASK-FISH (or 1-800-275-3474).

The new toll-free Sportfishing Information Line provides the latest scoop on fishing conditions at each of the state's major lakes and coastal waters. The automated hotline can also pinpoint the nearest place to get a fishing license, recommend a campground nearest your fishing destination, and answer questions about state fishing regulations.

Available in South Carolina since October, the hotline is a cooperative outreach project between the S.C. Department of Natural Resources and the Sportfishing Promotion Council. The toll-free service is funded by a grant from the Federal Aid in Sport Fish Restoration Program, which gets its money from excise taxes paid when anglers purchase fishing equipment.

"This is an excellent example of how government and private industry can work together to promote a sport that provides a significant economic benefit to the state of South Carolina," said Gov. Carroll Campbell, who made the first call to the hotline during a ceremony held

October 5 in Columbia.

James A. Timmerman Jr., director of the state DNR, said the free fishing line was designed especially for first-time anglers. He noted that the biggest obstacles facing would-be anglers include learning where to fish and where to get a fishing license.

Using the fishing hotline is easy. Suppose you're planning a trip to an unfamiliar part of the state and you'd like to get in some fishing while you're there. Simply punch in the name of a nearby town, or the area code and prefix of a local phone number, and the hotline will tell you what's available.

Or let's say you're a newcomer to South Carolina and haven't a clue as to where you can buy a fishing license. Just key in your zip code and the voice on the other end will rattle off six fishing license dealers within a 10-mile radius of your home.

South Carolina is the 12th state to join the nationwide 1-800-ASK-FISH program. Recorded information is also available on fishing opportunities in Arkansas, Florida, Idaho, Illinois, Kansas, Massachusetts, Mississippi, New Mexico, Oklahoma, Oregon and Utah. 🐟



MEGA-LANDING PLANNED FOR LAKE THURMOND

Barely two years have passed since the Sen. John C. Land Sportfishing Facility was completed on the shores of Lake Marion, but already the mega-landing has proven so successful in luring lucrative fishing tournaments to South Carolina that a similar facility is planned for another part of the state.

The S.C. Department of Natural Resources, in conjunction with the U.S. Army Corps of Engineers, has identified a possible site for a major landing in the vicinity of Hawe Creek on Lake Thurmond (formerly Clarks Hill) in McCormick County. The Corps of Engineers owns the proposed site and will provide the land for the project.

"Currently there is no South Carolina landing on the Savannah River lakes with the capacity to handle large tournaments," said state Rep. Jennings McAbee of McCormick. "Because of this, countless revenue from lodging, food, boating and fishing supplies is lost to our bordering state of Georgia."

Modeled after the hugely popular John Land facility in Clarendon County, the Thurmond landing is expected to attract large numbers of visitors to McCormick County, bolstering the local economy.

"This facility will be a major economic shot in the arm," McAbee said.

Construction of the tournament-style landing, which will feature a barrier-free fishing pier, is anticipated to begin next spring. 🐾

AT YOUR SERVICE: SCOTT POWELL



Two illegal channel netters learned the hard way about the investigative skills that earned Scott Powell the title of DNR's 1994 enforcement officer of the year.

Powell's colleagues say he has no peer when it comes to persistence in pursuing violators, and in his apprehension of the pair of shrimp-nappers, his perseverance paid off:

In the small hours of a cold fall morning, two fishermen eased their Boston Whaler through the marsh creeks near Georgetown, planning to retrieve four illegal nets set out earlier.

The Whaler pulled up beside the specially marked buoys, and the two men aboard hoisted each net up and dumped piles of shrimp on the boat's deck. Working silently, the men were absorbed in their task. Each net they emptied had enough shrimp to bring a tidy profit the next day in Georgetown, where shrimping is a big business.

The night was cold and clear, and the expected lunar eclipse wrapped a blanket of black around the men. Suddenly their concentration was broken by a

voice: "How ya'll doing tonight?" Startled, but thinking a friend had just come out in his boat to help fill the coolers, they continued their work. "Got your permits for those nets?" Now, knowing something was dead-wrong, one man scanned the black water as the moon returned to light up the creek. He dropped his net in shock as officer Scott Powell pulled up beside them and boarded their boat.

Later Powell said, "I knew they were setting illegal channel nets, so I just waited in the bay for them to return. My dad, who is a deputy wildlife conservation officer in the area, accompanied me as my backup. I watched them fish three nets and dump the shrimp in the boat, then just floated out to them and made my move."

That night, Powell confiscated four channel nets worth \$800 each and the 16-foot Boston Whaler and fined

each man \$280 for using a channel net without a permit. The men later bought the boat back for \$2,000, making their venture quite an expensive outing.

"There's always going to be someone out there who wants to deplete our resources and make a profit from it," Powell said. "That's why we're here, to protect what natural resources we have and ensure that future generations will be able to enjoy them."

Private First Class Powell is assigned to the DNR's District Nine, which covers all the coastal counties and more than 160 miles of coastline.

His supervisor, Capt. Henry Garbade from Port Royal, praises Powell's astute investigative skills, saying that Powell was on the forefront in several volatile, high-drama cases this past year. He was point man on the tracking team seeking the capture of two extremely dangerous felons. Although caught in a crossfire between the felons and the SLED SWAT team, Powell lay quietly for almost four hours while radioing the felons' position.

On other occasions Powell proved his expertise as an investigator with the arrest and subsequent convictions of violators who had illegally killed an American bald eagle and a black bear and had taken the eggs of a loggerhead turtle.

"His cases are usually the talk of the town," said Garbade. "He has earned the respect of locals and his fellow officers, and that alone is a unique quality."

Powell lives in Georgetown with his wife, Deborah, and infant son, Scott Jr. 🐾

MATCHMAKERS FOR ENDANGERED WOODPECKERS

An eligible young female. A new home on a wooded lot. What more powerful inducements for footloose bachelors to settle down and start a family?

That's the sweetheart deal biologists with the state Department of Natural Resources are offering endangered red-cockaded woodpeckers at Sand Hills State Forest near Cheraw. Their goal is to kindle some avian amour that they hope will result in more little woodpeckers.

Wildlife biologists studying the rare birds discovered that out of 43 woodpecker colonies located within the state forest, eight were inhabited only by single males. This fall, DNR biologists began relocating unattached females from other colonies to the male-only groups in hopes of establishing fertile pairs. The technique has been used successfully in other settings where the birds occur, including the Francis Marion National Forest and the Savannah River Site.

To help ensure that these arrangements result in offspring, researchers at Sand Hills are smoothing the way for the newly matched woodpeckers.

The red-cockaded is the only species of woodpecker that carves its nest into the bole of a living pine tree — a laborious task that often takes two or more years to accomplish. To hasten the process and optimize nesting opportunities, DNR workers have hollowed out dozens of ready-made homes for the birds using gasoline-



Pat Ferral with the state DNR bands an endangered red-cockaded woodpecker.

powered drills.

"Putting in artificial cavities in suitable habitat is a way of getting more bang for your buck," said Pat Ferral, an endangered species biologist with the DNR's Wildlife Diversity Section. "The more areas you can create for the birds to nest, obviously the better chance you give them to increase their numbers."

Ferral said red-cockaded readily use the man-made cavities, so much so that nesting activity at Sand Hills jumped 40 percent after cavities were installed last spring.

The bird's endangered status stems mainly from the loss of old-growth pine forests that once blanketed much of the South. Lack of controlled woodland burning has also impacted the species. About 1,000 groups of the woodpeckers remain in South Carolina, according to DNR estimates. 🐿

THE GIFT THAT LASTS A LIFETIME

Looking for a great Christmas gift for the sportsman or -woman who has everything? Look no farther.

South Carolina's lifetime licenses offer hunters and fishermen the freedom to enjoy their favorite outdoor pastime without having to worry about renewing another license — ever.

Three different licenses are available: hunting, fishing, and a combination hunting/fishing. Costs range from \$300 for the fishing or small game hunting license to \$500 for the combination license. Special value combination licenses costing \$400 are available for children under age 16.

In addition to making a thoughtful gift that will be enjoyed and remembered for years to come, a lifetime license also represents a lasting investment in South Carolina's natural heritage. All funds from the sale of lifetime licenses go directly into the South Carolina Wildlife Endowment Fund. Only the annual interest from this fund is spent to support wildlife conservation programs, thus protecting buyers' investments for future generations.

When buying a license for another person, be sure to provide a copy of his or her drivers license or other proof of residency, as lifetime licenses are available only to legal residents of South Carolina.

Application forms are available at all state DNR offices and at more than 1,200 retail stores where hunting and fishing licenses are sold. 🐿

DUKE POWER PLEDGES MORE WATER FOR FISH

Duke Power Company has reached an accord with state and federal wildlife officials to keep water flowing from three Upstate dams to safeguard the health of fish living downstream.

The agreement, which affects two dams on the Broad River and a third hydro on the Saluda, provides for a continuous flow of water year-round, particularly during the critical spring spawning season and during summer droughts.

Hydroelectric dams generally release water in response to demand for electricity, according to Gerrit Jöbsis, environmental coordinator for the state Department of Natural Resources. The sporadic outflow harms aquatic habitat downstream and hurts the quality of fishing, he said.

In addition to steady water flows, Duke also agreed to make recreational improvements at the dams. These will include lighted parking areas, access trails for fishermen and paddlers, and fishing platforms for people with disabilities. 🐿



BACKYARD NATURALIST: *The Christmas Bird Count*

Frank Chapman could have never dreamed that the humble "Christmas Bird-Census" he started in 1900 would turn into the world's largest volunteer natural history effort. Chapman, a famous ornithologist and National Audubon official, proposed a bird count on Christmas Day as an alternative to the indiscriminate killing that was decimating wildlife at the turn of the century.

The first count attracted 27 people at 26 localities. Since that modest beginning, the annual event has grown to involve 43,000 observers at more than 1,600 locations throughout North America. Last year, 54 million birds of 637 species were counted. The purpose behind the count remains simple: to census every bird and species within a given area and have fun doing it.

Christmas Bird Counts can take on aspects of a military exercise. The count area, a circle with a 15-mile diameter, is scouted thoroughly beforehand to take note of habitat changes and the presence of rare birds that may have moved into the area. The count itself lasts 24 hours. Teams divide the circle and start counting at the crack of dawn and go until past sunset. A few dedicated individuals tally owls through the night.

Many counts feature a traditional "countdown" at a local restaurant at the end of the day to review the results. Although total number of individual birds counted is important, the big prize is the tally of different species. A major objective always is to

A holiday tradition for 94 years, the Christmas Bird Count yields valuable figures ... and loads of fun.



surpass last year's number. The count compiler carefully reads over a check list, hoping that someone has spotted those rare species that increase a count's total. Sometimes, though, the common species are overlooked. The Columbia count, for example, often goes for several years without recording the bobwhite quail, even though the bird occurs in the vicinity.

Counts are compiled and the results are published annually by the National Audubon Society. Participants also get to see their names in print — albeit fine. As might be expected, the Christmas Bird Count's huge data set (last year's publication ran to more than 600 pages) is a gold mine for researchers and wildlife managers interested in bird distribution and population trends. Many journal articles and papers have been published using information generated by volunteers from Christmas Bird Counts.

Results from last year's counts in South Carolina revealed the

most abundant bird in the state to be the red-winged blackbird (one count alone reported nearly 15,000 red-wings), followed by the common grackle. (Of course, "counting" large flocks of blackbirds passing overhead is more an exercise in estimation than actual enumeration, but with practice, some folks achieve surprising accuracy.)

The rarest find was a black guillemot, a small seabird of northern waters, spotted at the Litchfield-Pawley's Island Count. For some species, rarity is based on seasonal rather than numerical occurrence. Christmas Counts have documented the presence of warblers and other migratory species that normally overwinter in the tropics. The mild weather we've experienced in the past decade has resulted in a few of these birds spending the winter hundreds or even thousands of miles north of their traditional winter range.

People enjoy the Christmas Bird Count for many reasons:

it's a way to get outdoors and see nature, it can provide competitive sport for some and fellowship for others, it generates important information for managing a valuable natural resource, and it can be a rewarding and inexpensive hobby. The count is definitely not restricted to experts. Teaming up with an experienced birder is a great way for beginners to learn bird identification skills. Many counts feature feeder watches for the yard or neighborhood, so even homebound birders can take part.

Last year 18 counts were held in South Carolina from December 17 to January 3. (Very few counts are actually held on Christmas Day.) These events blanketed the state from the mountains to the sea. For more information on the count nearest your area, contact the local Audubon Society chapter or the S.C. Department of Natural Resources at (803) 734-3893. 🐦

— John Cely

EVENTS

NOVEMBER 11-JANUARY 8.

Holiday Festival of Lights. Charleston. Beautiful James Island will be brightened by a spectacular lights display during the holidays. Contact Charleston County Parks and Recreation Commission, 861 Riverland Drive, Charleston, SC 29412, 762-2172.

NOVEMBER 18-19.

Arts and Crafts Fair. Allendale. Fascinating arts and crafts such as needlework, baskets, candy, paintings, wall hangings, and baked goods on display and for sale. Contact Cordelia Shramek, P.O. Box 113, Fairfax, SC 29827, 632-2270, or Barbara Lewis, Clemson Extension Service, P.O. Box 577, Allendale, SC 29810, 584-4207 or 632-3775.

NOVEMBER 19.

Making Fancy Paper. Moncks Corner. Learn how to make your own stationery or note pads using recycled paper; fee; register by November 18. Contact Old Santee Canal State Park, 900 Stony Landing Road, Moncks Corner, SC 29461, 899-5200.

NOVEMBER 19-20.

Plantation Days. Charleston. Craftsmen in 18th- and 19th-century attire demonstrate bygone skills: syrup making, candle dipping, spinning, weaving, wool dyeing, basket making and more. Contact Middleton Place, Ashley River Road, Charleston, SC 29414, 556-6020.

NOVEMBER 21-27.

Lowcountry Holiday Festival. Pawleys Island/Litchfield Beach. Arts, crafts, music, food fair and a "jingle bell" walk. Contact Pawleys Island/Litchfield Beach Merchants Association, P.O. Box 192, Pawleys Island, SC 29585, 237-4886.

NOVEMBER 26.

Chitlin' Strut. Salley. Hog-calling contests, parade, country music, arts, crafts, chicken dinners and chitlin's. Contact Salley Town Hall, P.O. Box 484, Salley, SC 29137-0484, 258-3485.

DECEMBER 1-4.

Holiday Market. State Fairgrounds, Columbia. Over 70 vendors will be displaying and selling their wares — arts,

crafts, gourmet items, jewelry, wreaths, toys, garden accessories, men's gifts, stocking stuffers for kids, decorative rugs, and more; Martha Stewart will host a show on holiday entertaining; fee, food. Contact Tucker Moe, Junior League of Columbia, 3612 Landmark Drive, Suite A, Columbia, SC 29204, 782-5211.

DECEMBER 2-30.

The Lights Before Christmas. Riverbanks Zoo, Columbia. The zoo becomes a winter wonderland with over 200,000 holiday lights illuminating the park; fee. Contact Riverbanks Zoo, P.O. Box 1060, Columbia, SC 29202, 779-8717.

DECEMBER 3-17.

A Plantation Christmas. McClellanville. Celebrate the holiday by viewing Hampton Plantation in its traditional Christmas finery; entry fee is a canned item for the Salvation Army; local choirs perform on December 17; no registration. Contact Hampton Plantation State Park, 1950 Rutledge Road, McClellanville, SC 29458, 546-9361.

DECEMBER 10.

Corn Shuck Wreath Workshop. Moncks Corner. Create an unusual but traditional wreath for the holiday. Bring an old towel, scissors and lunch; fee; register by December 3. Contact Old Santee Canal State Park, 900 Stony Landing Road, Moncks Corner, SC 29461, 899-5200.

Christmas Sampler. Lexington. Crafts show, breakfast with Santa, door prizes and other holiday events. Contact Lexington County Recreation and Aging Commission, 563 South Lake Drive, Lexington, SC 29072, 359-4048.

DECEMBER 15.

South Carolina's Artificial Reefs Seminar. Walterboro. The fourth in a series of six seminars on coastal issues and DNR programs, this seminar focuses on man-made fishing reefs; free; open to the public. Contact Mike McKenzie, DNR's Marine Center, P.O. Box 12559, Charleston, SC 29422-2559, 762-5062.

DECEMBER 26-30.

Winter Fun Day Camp. Charleston.

Children ages 5 through 11 will enjoy a week of fun and educational experiences — different games, crafts, speakers daily. Each child will take home two crafts each day; fee; lunch and snacks provided; no registration required. Contact Charles Towne Landing State Park, 1500 Old Town Road, Charleston, SC 29407, 852-4200.

JANUARY 6-7.

Grand American Coon Hunt. Orangeburg. Coon dog competition; trophies and prizes; bench show. Contact Orangeburg County Chamber of Commerce, P.O. Box 328, Orangeburg, SC 29116-0328, 534-6821.

JANUARY 14.

Shellfishing Workshop. Murrells Inlet. Learn how to harvest your own seafood dinner, including all aspects of shell fishing; oyster roast; fee; pre-register. Contact Huntington Beach State Park, Murrells Inlet, SC 29576, 237-4440.

JANUARY 26-29.

30th Annual Conservation Banquet and Family Weekend. Hilton Head Island. Annual meeting and awards banquet, seminars, field trips, music, cookout, auction. Contact S.C. Wildlife Federation, 716 Woodrow Street, Columbia, SC 29205, 782-8626.

MARCH 29-APRIL 2.

Second Annual Nature Symposium. Kiawah Island. Come and explore the natural beauty and culture of barrier islands; seminar with Rudy Mancke, *NatureScene* host; field trip, seminars, entertainment, traditional Lowcountry food; fee; pre-registration required. Contact Whit McMillan, Kiawah Island Resort Recreation Department, 12 Kiawah Beach Drive, Kiawah Island, SC 29455, 768-6001.

NOTE: Dates are subject to change, so call before traveling to an event. All area codes: 803. To list an event, please send information three months in advance of the magazine's publication date to Tricia Way, South Carolina Wildlife, P.O. Box 167, Columbia, SC 29202-0167, 734-3972. 🐾

V

isit the past and learn of early 19th-century customs at **Kings Mountain State Park's** historical farm.

1840-STYLE HOLIDAYS CELEBRATED DEC. 17

Wood smoke and hot cider's spicy fragrance will fill the winter air at Kings Mountain State Park, 12 miles northwest of York on SC Highway 161, when the park's staff reenact some of the traditions of an 1840s Christmas. Through story-telling and hands-on demonstrations at the park's charming living history farm, visitors can sample the lifestyle of pioneer farm families in the Upcountry, where the holidays were enthusiastically celebrated, albeit more simply than in other places.

"Natural materials, especially greenery, were the main decorations used by the area's early residents, and in telling about these trimmings we can help visitors learn about the settlers' way of life," said Linda Howell, park interpreter at Kings Mountain. "Farm families had to be self-sufficient, living off what they could raise and selling the little extra they had. Their customs related to their heritage, and we enjoy sharing what we know about the people who might have lived at a Piedmont homestead like this one. Often their holiday traditions remind our listeners of their own childhood."

Visitors to the park on Saturday, Dec. 17, can share the holiday experience and receive a special treat at 10:00 that morning when they participate in the park's Christmas For Wildlife program.

Individuals and families are invited to craft ornaments from pine cones, suet and fruit, preparing one for the tree at the park and one to take home for wildlife in their own back yards. (Participants should register by Dec. 15 by calling the park.)

Staff and volunteers dressed in costumes of the period will be on hand during the Christmas celebration to share some of the customs the farmers observed. White-capped ladies, always ready to tell about their attire and surroundings, serve cookies and cider warmed over an open fire.

Storytellers will entertain both children



MICHAEL FOSTER

log house, believed to have been built by a returning Civil War veteran in the late 1860s and moved to the park from its original location elsewhere in York County, provides the center for craft-making sessions and demonstrations of household activities.

The living history farm itself reflects examples of 19th-century construction, with log and timber structures that have been moved here from throughout the Upcountry. Scotch-Irish settlers came to this part of the state, and they brought with them their woodworking skills. They hewed their buildings' pine logs with broad axes and "chinked" clay and straw between them to seal out cold and bugs. A smokehouse, blacksmith and carpenter shop, sorghum mill and cooker, corn crib, and

cotton gin have been arranged so visitors can comfortably stroll the grounds of the farm, receiving with their tour a lesson in South Carolina history. A stop at the animal farm provides a treat for both young and old and further demonstrates the pioneers' close links to the land.

For more information about the Christmas For Wildlife program, or about the park itself, write Kings Mountain State Park, 1277 Park Road, Blacksburg, SC 29702, or telephone (803) 222-3209.

— Linda Renshaw

and adults with tales about some of the Christmas practices. "One of the stories we share concerns the placing of natural greenery over the doorways to keep away witches and goblins," Howell said. "The intertwined branches prevented these carriers of bad luck from entering the farm home."

Inside the homeplace, an old-fashioned decorated Christmas tree welcomes guests, and a Yule log blazing in the fireplace reminds them that central heat and electric ranges are relatively recent inventions. The

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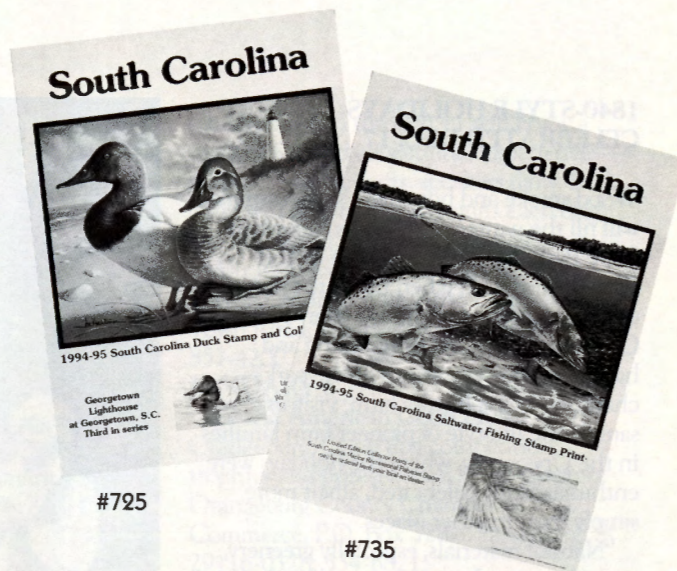
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Logowear cap. Full-fabric, two with contrasting brim. Stitched logo. One size fits all. (Colors in order shown on inside back cover.) #212 jade/khaki. #213 royal blue/grey. #211 black. \$7.95 each.



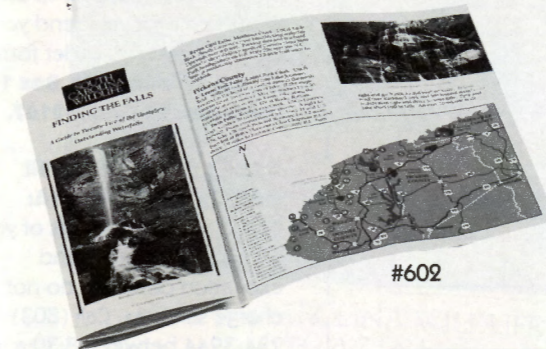
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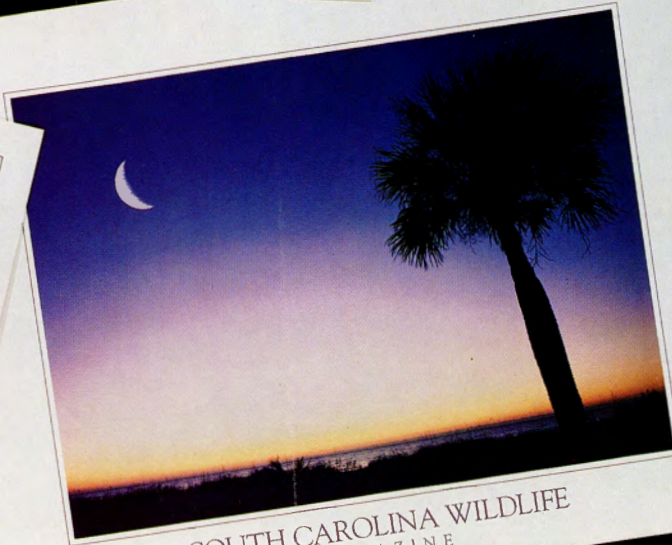
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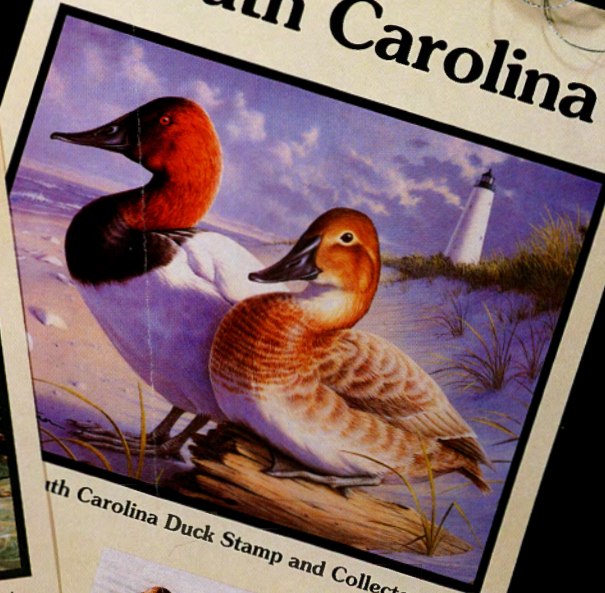
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