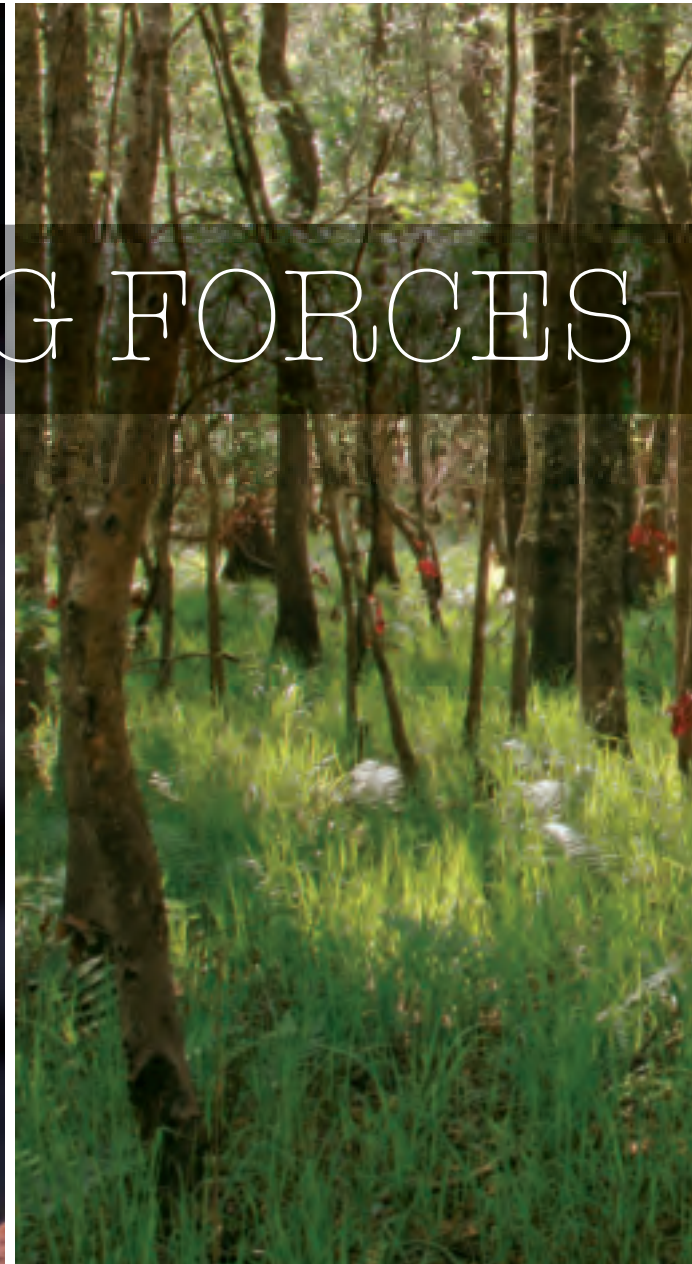


# COMBINING FORCES FOR CONSERVATION



Shaken Creek Preserve contains dozens of plants found only in savanna habitat (center), such as the purple pitcher plant (left) and crow poison.

**GREAT THINGS HAPPENED WHEN THE NATURE CONSERVANCY, A DEDICATED LANDOWNER, A HUNT CLUB AND THE U.S. MARINES TEAMED UP TO PRESERVE A SLICE OF PRISTINE SAVANNA IN PENDER COUNTY. THE SHAKEN CREEK PRESERVE NOW PROTECTS RARE PLANTS AND ANIMALS.**

WRITTEN BY JACK IGELMAN  
PHOTOGRAPHED BY MELISSA MCGAW

Soon after Hervey McIver settled in as a land acquisition manager at The Nature Conservancy in Durham in the fall of 1997, he met with a Pender County landowner. Billy Blanchard had contacted McIver's organization to deed 50 acres to the conservancy's Neck Savanna Preserve. On their way to visit the site, Blanchard detoured McIver through another parcel of his holding in the Shaken Creek watershed, at the time part of several tracts that enveloped the Wallace Deer Club near Jacksonville. The conservationist was struck by what he saw.

"Billy talked about how special Shaken Creek was," McIver recalls of his initial visit. "I was stunned by how unusually intact it was, and the beauty of the longleaf ridges and savannas. I thought there might be some species present that have become rare."

McIver asked Blanchard for permission to visit Shaken Creek once more. Several months later, he and Richard LeBlond, an inventory biologist with the N.C. Natural Heritage Program, returned. What they found was an extraordinarily unblemished chunk of the Coastal Plain. "I absolutely

knew that this area needed to be protected," said McIver. At the time, he didn't fathom that he was launching a once-in-a-career conservation project.

In early 2007, The Nature Conservancy (TNC) closed on the final two tracts of land to cap the 6,050-acre Shaken Creek Preserve. The relatively compact preserve is one of the most intact examples of longleaf pine savanna—with more biological diversity—anywhere on the Eastern Seaboard north of Florida. But assembling this unique preserve of land in its natural state wasn't a

pushover. It took McIver's persistence and a serendipitous arrangement of fire-savvy hunters, good timing and an unlikely ally: the U.S. Marine Corps.

#### **In the line of fire**

The strip malls along N.C. 24 near Camp Lejeune's main gate in Jacksonville are bulging with a seemingly unending array of barbershops and tattoo parlors. After all, Lejeune is the second largest Marine base in the continental United States, with roughly 43,000 Marines who devour haircuts and tattoos

like a child does candy. But tattooists and barbers aren't the only beneficiaries of spirited Lejeune Marines; the base is also a safe haven for the federally endangered red-cockaded woodpecker.

Though a Marine training facility may not seem ideal for the survival of endangered animals, in fact, it is. Camp Lejeune is known to have one of the healthiest populations of the woodpecker in the United States. Although there are training areas of abject destruction, of the 126,000 acres of land at Lejeune, 100,000 acres are forested—often in a natural and open state due to regular fire. That makes the land well suited for training purposes, in addition to being the woodpecker's favored habitat: mature clusters of open pine forest.

The abundance of the small birds on base complicates training and maneuvers for the Marines. The first thorough inventory of the woodpecker's habitat was completed in 1986 and revealed 32 clusters of woodpeckers scattered on base. An active cluster covers, on average, 10 acres and must be avoided by troops at all times, since the Endangered Species Act (ESA) prohibits the disruption of the woodpecker's living space.

"We have an affirmative mandate to conserve and recover the red-cockaded woodpecker," said John Townson, a civilian Marine and natural resource manager for Camp Lejeune. So rather than complain about the ESA, the marines were gung-ho to embrace it. "It's in our ethos to take things to the limit," said 2nd Lt. Craig Thomas, a base media officer. Currently there are 78 active clusters of the birds, and there is hope that their habitat will eventually support 173—enough to remove the red-cockaded woodpecker from the endangered species list and ease training restrictions on base.

Most people wouldn't mistake the Marines for an environmental group, yet species protection isn't off their radar. "We're not a conservation organization," said Townson, "but it is a tool to support our mission."

#### Appreciation for a special place

Though the military and conservation groups may have faced off in the past, TNC and the Marines have discovered a mutually beneficial objective. The Shaken Creek Preserve and Camp Lejeune are part of a corridor of several natural areas that stretches down the

Atlantic coast from the Pamlico River to the Northeast Cape Fear River and 30 miles inland. The range of natural areas is known as Onslow Bight, but geologically it lies on the Cape Fear Arch—a plateau of land that is a few feet higher than the rest of the Coastal Plain. It has been above sea level for a longer period, and therefore Shaken Creek has an older history and distinctive soil qualities that allow it to harbor extremely rare natural communities. Although Shaken Creek does not abut Camp Lejeune, its



MARK DANIELS/THE NATURE CONSERVANCY

location is vital to link the base with 100,000 acres of two state-managed game lands: Angola Bay and Holly Shelter.

Though its ecological significance sets it apart, for many it's just another boring obstacle on the way to Topsail Island. "Shaken Creek is totally unsexy to anyone except hunters and nature fans," admits McIver, alluding to the dozens of rare plants such as Cooley's meadow rue, golden sedge and possibly other species yet to be identified. Still, the rare savannas of Shaken Creek Preserve certainly are not unpleasant. "One could do worse than acres of pitcher plants, orchids and flytraps beneath an open canopy of pond cypress and longleaf pine," adds biologist LeBlond.

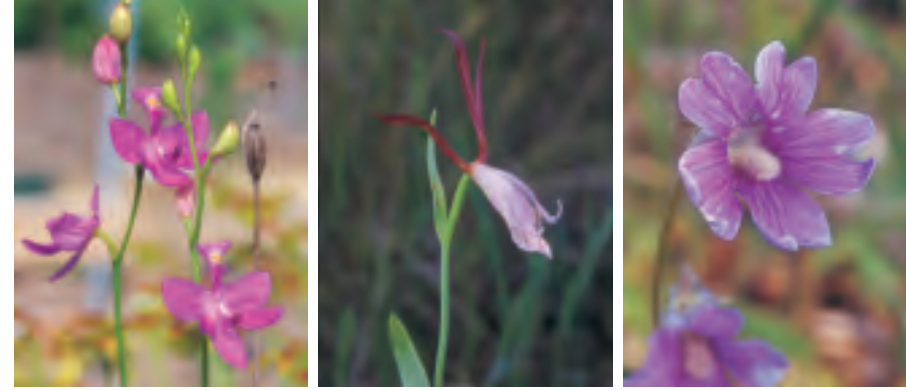
In November, the open fields of the savannas are covered in a wispy, rich layer of golden, waist-high wiregrass that seems light and soft like an infant's hair. Among the grasses are a handful of scattered longleaf pines with crooked branches and bushy caps of green needles. The savannas are park-like and natural—orderly, but wild.

Shaken Creek is the only known site in North Carolina with all four types of Outer Coastal Plain pine savanna. Two of these longleaf pine savannas—the very wet clay pine savanna and the pleea flat savanna—are extremely rare. The landscape's habitat diversity allows more plant and animal species to thrive there than anywhere else on the state's Coastal Plain. In all, there are 20 rare plant and animal species. And it is the only place in North Carolina with four species listed on the federally endangered list, including three plants and the red-cockaded woodpecker.

Unfortunately, the existence of longleaf pine savannas has dwindled due to logging, agriculture and development. Shaken Creek may have been unappealing for these uses because it is wet and remote. The fact that the area retained its biological distinctiveness turned out to be good fortune. The land that is now the Shaken Creek Preserve was owned in part by hunters who collectively formed the Wallace Deer Club. To reduce the risk of catastrophic fire and to maintain the habitat and hunting value of the land, the hunters replicated the natural cycle of fire with controlled burns. "Lack of fire is a huge threat to communities such as these," said McIver. "It's pure luck that it was managed the way it has been."

For decades, the burns helped maintain the natural diversity of the longleaf pine savannas. Many of the grasses and plants on the savanna, such as wiregrass, are dependent on fire to flower. Without the stimulus of fire, the wiregrass won't thrive, and infrequent fires allow savannas to become overgrown with woody plants and burn with greater intensity, killing the longleaf pines and allowing nonsavanna species to take hold and transform the unique communities.

Sadly, the art of fire was beginning to fizzle out. For one thing, the hazards and liability of burns may have discouraged the practice. But also, said McIver, "the people who knew how to do it well were aging out."



Regular burning has encouraged regeneration of pond pines (opposite page) and longleaf pines on Shaken Creek's spacious savannas. A few plants found at the preserve include (top, from left) common grass-pink, spreading pogonia and blue butterwort.



Protection specialist Hervey McIver (left) of The Nature Conservancy and botanist Richard LeBlond of the N.C. Natural Heritage Program represented conservation groups in the effort to identify rare species at Shaken Creek and protect the property.

Trumpet pitcher plants reach for the sky in an open savanna at Shaken Creek Preserve.



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MARK DANIELS/THE NATURE CONSERVANCY

As a result, until TNC took control, a few years passed without humans to help with burning. Shaken Creek was becoming overgrown, endangering some of the savannas that dazzled McIver in 1997. McIver understood that he had to act with urgency to preserve the intact savannas.

During his initial meeting with McIver, landowner Blanchard was excited by the interest in Shaken Creek and the species inventories that followed. Perhaps no living person had more history in the area than Blanchard, who died in March 2007 at age 88. He recalled that his father purchased nearly 1,500 acres of the watershed in 1933 for \$3.35 per acre.

"When I was young, there wasn't much for a little boy to do but play in the woods," said Blanchard, who was among the first to introduce controlled burns at Shaken Creek six decades ago. The bulletin at Blanchard's memorial service said that "nothing suited Billy better than spending time in the woods." Blanchard's burning program might have helped save the tract during a 1986 fire that burned 73,000

acres in the area, almost all of them at adjacent Holly Shelter Game Land. With minimal early successional growth on the site, the wildfire had insufficient fuel to spread there.

Still, another two years passed after their first meeting before McIver proposed that the watershed be considered for permanent conservation. "His reaction was quiet and serious," McIver said of his proposal to Blanchard. "I wasn't sure if I had blown it."

He hadn't; Blanchard was willing to talk with TNC. However, it wasn't that simple. The majority of the watershed was divided into two large tracts with nearly 30 shareholders, some of them with a frosty attitude toward conservation groups.

#### Turning doubt into success

Shaken Creek is close enough to Camp Lejeune to hear and feel the rumble of artillery strikes. But rather than disrupting the harmony of its neighbors, the Marine Corps wants to protect them. The Department of Defense has recognized incompatible development near bases as a major strain on

its mission. Though Marines seldom train beyond base boundaries, the encroachment of homes may add future training restrictions and create conflicts with landowners. It also puts a squeeze on species such as the red-cockaded woodpecker. "The less pressure on their habitat, the less pressure on us to be the sole source of their recovery," said Marine natural resource manager Townson.

In 2003 Congress gave military bases permission to establish buffer zones beyond their boundaries. Camp Lejeune is budgeted to acquire conservation easements within its buffer through willing transactions. The legislative authority also gave the Marines the ability to enter into agreements with partners to ensure compatible land use. But efforts were already under way. In 2001 the Marine Corps, led by Townson, spearheaded an effort to collaborate with other organizations interested in conserving land and species around the base. The result was the Onslow Bight Conservation Forum, with 13 partners signing on, one of which was TNC. One purpose of the group was to alleviate

developmental pressure around the base that would squeeze the corps' ability to defend the Constitution.

At the time, Shaken Creek wasn't a top priority for the corps, and it did not receive funds for the easements. However, the N.C. General Assembly authorized the Clean Water Management Trust Fund in 2004 to borrow funds earmarked for acquiring land within military buffer zones. The first grant was awarded to TNC to purchase conservation easements at Shaken Creek. With \$4.2 million in hand from the trust fund and other sources, McIver then faced the hurdle of finding willing sellers.

"There are not a lot of places like Shaken Creek," said Robert Swinson, the president of the Wallace Deer Club and a member since 1964 who has been hunting the land since the early 1960s. Born in the Maple Hill community next to Shaken Creek, he now lives 25 miles away in Hampstead and hunts the land every Wednesday, Thursday and Friday during hunting season. "I had mixed feelings to begin with. We bought this land to hunt—we never intended to sell."

The hunt club was established in the 1920s and included a handful of owners who held shares in the undivided land. The majority of Shaken Creek was divided into two large tracts—the O'Berry tract and the Ellington-Guy tract. Over the decades, shares were passed down through generations or sold to other people, further complicating the ownership arrangement.

The larger O'Berry tract's 3,500 acres held the heart of the natural area and had 19 individual owners holding 20 shares of undivided interest. The smaller Ellington-Guy tract had 10 shares, half of which were held by members of the Blanchard extended family. The final deal would require the signature of every shareholder.

As part of the negotiations, the parties agreed that TNC would purchase the land in fee—which means having complete ownership—with the exception that the hunt club would retain exclusive hunting and fishing rights. Those rights can be inherited or sold to other shareholders, but TNC can acquire the rights if they are ever sold to an outside group. "McIver pulled off a minor miracle—a Herculean effort," said Townson.

The initial contract ultimately served as a model for the other tracts. "The deal wouldn't have happened without the hunting rights," said Swinson, who, along with Blanchard, did a good deal of the legwork to encourage all of the shareholders to agree to the deal.

Although TNC has begun managing the burns at Shaken Creek, closings on most of the tracts occurred in 2005 and 2006 and in early 2007. A decade after McIver's first meet-

A low canopy extends over Shaken Creek (opposite page), the lifeblood of the preserve. The creek flows into Holly Shelter Creek, which in turn flows into the Northeast Cape Fear River. The 6,050-acre preserve helps link two vast protected areas: 100,000 acres at Holly Shelter and Angola Bay game lands, and more than 150,000 acres at Camp Lejeune.

More plants found at the Pender County site include (top, from left) white colicroot, the federally endangered golden sedge and broadleaf whitetop sedge.

If a plant can be charismatic, the carnivorous Venus' flytrap (below), also found at Shaken Creek, fits that description.

ing with Blanchard, the conservancy closed on the two final tracts. "I still have to remind myself that it's the best thing for Shaken Creek," said Swinson. "The land is dear to me, and I believe they will manage it well."

Perhaps the greatest beneficiaries of the land swap, and other future conservation projects at Onslow Bight, are the red-cockaded woodpecker and the other rare plant and animal species of the Coastal Plain. The Shaken Creek Preserve helps to stabilize and expand their future habitat beyond the Lejeune fence line. "This is probably the most biologically significant place I've contributed to," said LeBlond.

The conservation of Shaken Creek is part of an effort to reverse a century of land fragmentation in coastal North Carolina. Though it is just part of a much larger landscape—in all, Onslow Bight includes around half a million acres of natural area—McIver is partial to the 6,000 acres he played a crucial role in preserving. "I think that we have to get the last of the really good sites that are destined for the bulldozer," McIver said. "I'm afraid that the big conservation work will be done soon. I really don't see anything left that could surpass Shaken Creek." ♦

Jack Igelman is an Asheville writer and an occasional contributor to WINC.

