

Room to Maneuver

A new partnership between conservation groups and the Department of Defense has formed to confront a common enemy: unregulated urban growth that threatens both biodiversity and military readiness.

The Nature Conservancy Magazine
- Winter 2004

By Hal Herring

The Army post at Fort Carson, Colorado, is often lit by the flickers and strobes of modern weaponry. Tracer bullets in columns of pinkish fire pour into targets from aircraft hidden in the night sky; cannon rounds slam downrange, illuminating the mesas in blooms of white. The hiss and crackle of small-arms fire is as steady as static on a badly tuned radio. In the darkness, soldiers move fast, their night-vision equipment showing them the battlefield in shades of gray and white—here a patch of juniper, there a rock bunker or a tank rushing forward, its treads churning the hard earth.

A soldier at Fort Carson watches armored



fighting vehicles maneuver.
© Peter McBride/Aurora Photos

The isolation of Fort Carson, out

on the dry prairies south of Colorado Springs, makes such training feasible. Here—with few neighbors to register complaints, suffer injuries or compromise security—long-range navigation and reconnaissance are possible. Large-scale training exercises, weapons testing and live fire take place. And much of it occurs at night. “There’s only so much darkness left in this world, and we need every bit of it to train,” says Gary Belew, a civilian botanist who was once a soldier at Fort Carson and now oversees environmental compliance at the post.

“A pickup truck with its headlights on totally washes out a lot of our equipment. It’s like looking right into the sun. You need isolation.”

But that isolation is fast being lost. In the 1970s, it was miles to Colorado Springs and Pueblo. Now, says Thomas Warren, another environmental-compliance officer, “we’re watching [the area] become one giant megalopolis.” Warren is a wildlife biologist with the haircut and demeanor of a supersized biker, albeit one who can talk about botany and the interrelation of landscape and wildlife and military training. He adds: “Here we are with this

little piece of the public trust that is becoming an island of diversity.”

By diversity, Warren means combat systems, critters, cultural artifacts: “I’ve got multiple launch rocket systems, plus Bambi, Thumper and Indian graveyards,” he explains. “And I’ve got the habitat for thousands of men and women who are trying to learn how to survive on a modern battlefield.”

At Fort Carson, as at many military bases across the United States, the urbanized world—more densely populated, busier and more brightly lit—is encroaching. That world is also encroaching on wildlife habitat. The fact that the U.S. military and the wealth of American biodiversity face the same threat has led to an unlikely partnership between groups like The Nature Conservancy and the Department of Defense. The resulting alliance holds the potential for protecting thousands of acres of irreplaceable habitat while ensuring that the U.S. military will have the space to continue to train top-notch troops.

Natural Allies

What brings the Conservancy and other conservation organizations to the table is a treasure trove of wild places, animals and plants. The Pentagon manages nearly 30 million acres, scattered among more than 425 major installations, encompassing every imaginable type of terrain and ecosystem.

If biodiversity is the yardstick, the military’s land management has been extraordinary. Nearly 330 endangered or threatened species are found on Defense Department lands, more than are found on any other federal lands, including the National

Park system, which contains nearly three times as many acres.



Parcels of pinyon/juniper prairie buffer the perimeter of Fort Carson.

© Peter McBride/Aurora Photos



Protecting buffer areas is important for soldiers training for combat.

© Peter McBride/Aurora Photos

That wealth of biological diversity makes the military a natural ally for the Conservancy, says Brian McPeck, who coordinates the Conservancy's work with the Army at Fort Carson. For nearly 20 years, the Conservancy has helped the military manage natural resources and comply with environmental laws that protect species on many of the military's installations around the country.

But "complying with environmental laws is not the only reason the military has protected lands on its bases," says Bob Barnes, a retired Army brigadier general working for the Conservancy. "As far as the military's mission goes, the environment is a stage prop for practicing

the art of war, and soldiers need a swamp to be a swamp, a desert to be a desert. The military has to take good care of the land it's got, because it's not getting any more."

Despite that stewardship, some at the Defense Department believe that because of encroaching development, the military is now "being penalized for our successes," says Jim Van Ness, an environmental attorney for the Pentagon. He notes that lands preserved on bases for military training have become the last redoubts of many threatened and endangered species. And complying with the laws that protect those species can conflict directly with a base's training mission. "While we protected the [wildlife] habitat on our part, it was being lost outside, making ours more important than ever."

The biggest penalty could come in the form of base closures, a possibility on everyone's mind. In 2005 the Defense Department will attempt to cut costs by closing military bases, perhaps as many as one out of every four. Pentagon officials say the combination of development on the fence lines and endangered species within will be a major factor in deciding whether to close a base.

An answer to dealing with the military's dilemma came in 2002, when, as part of the National Defense Authorization Act, Congress authorized the Department of Defense to seek outside partnerships to create buffer zones around military bases where the training mission was threatened by encroachment. Such buffers could be acquired through purchase, through partnership agreements and through development restrictions known as easements. Congress rec-

ognized that protecting the training mission also involved protecting critical wildlife habitat outside the bases, in part to prevent the clashes that occur when endangered species are forced onto bases seeking their last remaining habitat. But it also recognized that the buffer zones curtail commercial or residential developments that could bring dangerous training to a halt much more quickly than finding an endangered species.

By advocating the buffering partnership, the Defense Department has embarked on a new strategy: large-scale conservation. "For a long time, most of what we did was reactive, and it really showed the weakness of micromanaging for any endangered species," explains George Carellas, a senior Army environmental official. "You can't just protect one tiny place where the species lives and say you've done your job. What if you lose that one place? What if that one place is crucial to some aspect of military training? The buffering strategy is proactive, trying to preserve the ecosystem as a whole, not just pieces here and there."

This year, Congress appropriated \$12.5 million for the buffering project, marking the first time the program has received explicit funding. The Conservancy and an array of hunting and environmental groups had pushed Congress for much more—\$250 million—and are asking for considerable increases over the appropriation in the future. The Natural Resources Defense Council is one of the players. The NRDC, a group that has often clashed with the military, recently challenged the Pentagon's rollback of various environmental protections at military installations. Still, in the case of the

buffering project, “there is tremendous potential here, and we are actively supporting this partnership,” says Andrew Wetzler, an NRDC attorney. “Since we sue the military on a regular basis over environmental issues, we know both sides of them, and this side is win-win across the board.”

A Pivotal Event

The buffering concept had its genesis at Fort Bragg, in the Sandhills Region of North Carolina, near Fayetteville. The base is the home of the Army’s Special Operations Command, the 82nd Airborne Division and the headquarters of the 18th Airborne Corps, a combination known as the Army’s “premier power projection platform.” In the last three years, some 65,000 troops

newing effect of periodic fires to germinate and prosper. Land managers here have used controlled burns for decades to keep the forest open for troop maneuvers, while other parts of the post are often swept by fires caused by artillery and bombing practice. Outside the post, fire has been almost totally excluded from the system, so that even in undeveloped areas, the composition of plants and animals has changed detrimentally.

The forest at Fort Bragg is like an ark, crowded with the biological remnants of that lost fire-dependent system.

“There are 30 species of concern here and five endangered species,” says Rick Studenmund, who co-

Department over its failure to protect the woodpecker at Fort Bragg. But what began as an acrimonious dispute turned into a collaborative effort between the military, the U.S. Fish and Wildlife Service, and environmental groups to identify and improve woodpecker habitat beyond the post. The aim was to build up the population and take pressure off the post.

“This was a pivotal event,” says Studenmund. “The Army needed some incentives, rather than just the threat of penalties for noncompliance, and the main incentive here was to reduce or head off restrictions on training.” The best way to do that, he says, was to find and restore habitat off the base and have a functioning population of woodpeckers there, so that all the best habitat was not in the middle of the training area. “What brought all of us to the table was this species that had legal protection,” he adds, “and what we figured out together was that we had more than enough common interests to work out the buffering solution.”

Army lawyers used a 1960 law called the Sikes Act that allowed the use of funds from both the Defense Department and members of the public to enhance wildlife habitat on military bases. The Sikes Act gave the Army the legal framework for collaboration and funding. Because the Conservancy was already working with Fort Bragg on habitat conservation within the fence line, extending that partnership was a natural. And the Army needed the Conservancy’s help in protecting and then managing those buffering lands.

Pentagon environmental lawyer

Habitat Type: Longleaf pine ecosystem
Species of Concern:
Red-cockaded wood-pecker (*Picoides borealis*)
St. Francis’ satyr (*Neonympha mitchellii*)
Michaux’s sumac (*Rhus michauxii*)
American chaffseed (*Schwalbea americana*)
rough-leaved loosestrife (*Lysimachia asperulaefolia*)

Threats:
Primary and resort home development, fire suppression, forest conversion to plantations

Conservation Goals/Strategies:
Knit to-gether fragmented lands to create corridors that both buffer the base and connect wildlife habitat to the state game lands. Encourage voluntary restrictions and incentives to private landowners through the federal “Safe Harbor” program. The Conservancy matches Army funding to purchase—or protect through easements—parcels within the corridors. A partnership with federal and state agencies and local land trusts attracts other money to the projects.

have left Fort Bragg for combat overseas.

The 161,000-acre facility is also home to a huge expanse of longleaf pine forest that has been protected from logging. This forest is part of an ecosystem that once stretched from Virginia to east Texas, and whose component plants, like the longleaf pine itself, require the re-

ordinates the Conservancy’s work with the Army at Fort Bragg. “It’s an amazing place.” One of those endangered species is the red-cockaded woodpecker, a creature once as prevalent as the longleaf pine forests, and now in equal decline.

In 1990 the Environmental Defense Fund threatened to sue the Defense

Van Ness explains: "At DOD, we are neophytes when it comes to negotiating and acquiring conservation easements, and we need expert conservation land managers to protect the habitat that we are acquiring. The Nature Conservancy has the expertise in those fields. We prioritize the training mission; they work to find and protect the habitat on and off the base. Hopefully, that will let us operate without the constant threat of more restrictions." He adds: "You could say that we've learned the hard way that wildlife makes a much better neighbor to a military base than a subdivision."

In 2000, Col. Addison Davis, then Fort Bragg's garrison commander, threw his weight behind the buffering project, saying that restrictions related to encroachment posed one of the most serious challenges to his base. No surprise, because at Fort Bragg, neighborhoods are literally pressed against the fence line. Some have sprung up just outside the drop zone for parachutists, tanks and other equipment. "All of a sudden they had guys winding up in people's swimming pools," says the Conservancy's Studenmund.

The Conservancy and the Army joined with state and federal wildlife agencies and local conservation groups to form the North Carolina Sandhills Conservation Partnership. Thus far, the group has protected from development 9,100 acres crucial to training and the ecosystem. The protected areas include habitat critical to red-cockaded woodpeckers and a host of less threatened species. And the parcels create "stepping stones," connecting habitats in a network of 225,000 acres of public lands.

The Conservancy is working with other military branches to create similar buffers and corridors throughout the country, including at such key installations as Camp Pendleton, California, and Camp Ripley, Minnesota. One of those installations, Camp Lejeune, is home to the Second Marine Expeditionary Force, the largest amphibious military base in the world, located on the swampy and species-rich coastal plain of North Carolina. Over several years, a developer bought tracts totaling 2,500 acres of private land that was sandwiched between the M-1 Abrams tank live-fire range and the rifle and explosives demolitions range. The developer was planning a golf community centered around two large courses. The plans were, in the words of then base commander Marine Corps Maj. Gen. David M. Mize, "a disaster" for the future of both training and the ecosystem. Instead, the Conservancy negotiated the purchase of the property from the developer, sold the development rights to the Marine Corps and transferred title to the state. The deal guaranteed that training on both ranges would continue. It also protected the headwaters of a major creek, foraging habitat of red-cockaded woodpeckers, and a forested corridor connecting areas of the base supporting forested uplands and wetlands.

Protecting corridors is also the goal of a buffering project at Eglin Air Force Base, in the Florida panhandle. Working with the state of Florida, the Defense Department, and a number of other agencies, the Conservancy is trying to buffer the flight paths of five Air Force and Navy installations near rapidly expanding coastal towns. Once described by some as "the Wilderness Coast,"

the panhandle is now experiencing a rush of unprecedented population growth and development.

The project is called the Northwest Florida Green-way. Air Force Col. Robert C. Nolan, the vice commander at Eglin Air Force base, oversees 45,000 training flights every year, many of them flown at night. "We need room to operate," he says, "and that's what we're hoping to get from the greenway project." What the Conservancy and others want are corridors of protected land on the ground, underneath those flight paths. Nolan's hope is that the corridors will run north from the base to the Conecuh National Forest in Alabama, east to the Apalachicola National Forest and west to the Blackwater River State Forest. On the ground, the greenway will protect a network of rivers, swamplands and estuaries that are among the country's most intact and diverse ecosystems, home to the rare indigo snake as well as the rare Florida black bear.

The Best Hope

Fort Carson, like the rest of central Colorado along Interstate 25, is in the bull's-eye of development pressures. Sandwiched between Colorado Springs to the north, Pueblo to the south and a few smaller developments to the east, the nearly 140,000-acre post is high on the Defense Department's list of bases in dire need of buffering. In the last decade, the population of Colorado Springs has grown 30 percent, topping a half million and making Forbes' list of "Steroid Cities."

From a high pinyon- and juniper-covered ridge on the base, you can see the expansion of the community of Pueblo, moving toward the base



Shale barrens, protected by the Walker Ranch buffer area, are home to rare plants. © Peter McBride/Aurora Photos

along the verdant cottonwood bottoms of Fountain Creek. Fort Carson is planning some huge training exercises down on that end of the post. “The Army is a noisy neighbor,” says environmental compliance officer Warren, “and you can only push that ‘sound of freedom’ argument so far when the houses are rattling right off their foundations in the middle of the night.”

More visible and of more immediate concern is a development that has sprung up on the eastern edge of the post. El Rancho is a hard-bitten settlement consisting mostly of makeshift houses and trailers, some buried partially in the desert. With a community that close, officials worry about the possibility of kids crossing the fence to play or explore.

At Fort Carson, artillery ranges are littered with a 40-year accumulation of unexploded bombs and artillery rounds so dangerous, say officials, that helicopters do not even fly over them for fear of needing to land. Other areas have been fought over hundreds of times by armies in training, and then been carefully restored by Warren’s team for the next exercise. The soldiers of those armies have gone on to fight some of the most violent and decisive battles in U.S. history. (More than 25,000 soldiers from the post have

been deployed to combat areas over the last three years.)

Yet while the base is dangerous for humans, biodiversity flourishes. Prairie-dog towns, and their host of attendant species, dot the tank-warfare mining fields where maneuvers keep the vegetation low. And native shortgrass prairie is thriving inside the fence lines.

The best hope for protecting that biodiversity and the post lies along Fort Carson’s southern and southeastern boundaries. Just beyond the high-impact artillery range, the electronics range and the tank-warfare training zones lies a 30,000-

elk and pronghorn, maybe swift foxes.

“Shortgrass prairie ecosystems need large, unbroken landscapes to thrive and the Walker ranches are some of the best remaining large examples in the area,” says the Conservancy’s McPeck, who works with Fort Carson and the Walkers. He adds: “The shortgrass prairie around Colorado Springs is being rapidly broken up by housing developers seeking cheap land.”

Both Walkers have worked closely with the Conservancy and the Defense Department to create easements that will permanently limit

Habitat Type: Shortgrass prairie

Species of Concern:

Mountain plover (*Charadrius montanus*)

black-tailed prairie dog (*Cynomys ludovicianus*)

Arkansas River feverfew (*Bolophyta tetraneuris*)

golden blazing star (*Nuttallia chrysantha*)

Pueblo goldenweed (*Oenopsis puebloensis*)

round-leaf four-o’clock (*Oxybaphus rotundifolius*)

Threats:

Urban encroachment from Colorado Springs, Pueblo and smaller communities

Conservation Goals/Strategies:

Buffer several thousand acres to the south and southeast of the Army post by purchasing conservation easements on two ranches that contain all four rare plant species and many animal species. Restore fire to mimic natural disturbances.

acre ranch owned by Gary Walker, a self-described “old-style conservationist—a member of every gun-totin’ conservation organization out there.” His father, Bob Walker, still ranching in his late 80s, owns an adjacent 20,000 acres. Ecologists working with the Conservancy on the Walker ranches have found Arkansas feverfew, roundleaf four o’clocks and other rare plants, some dependent not only on shortgrass prairie but specifically on a geologically unique feature known as shale barrens or juniper breaks. There are Mexican spotted owls, ferruginous hawks, mountain plovers, herds of

development on their ranches. “We are giving up dollars here,” says Gary Walker, “but we are getting something in return—preserving this ranch that we love.” He adds: “We’ve talked about this easement protecting the rare plants and wildlife habitat that are here, and helping Fort Carson, but there’s a third element for my family, and that’s protecting the ranching economy and traditions of this place. We needed an option to development, and this is it.”

The Conservancy and Fort Carson see a window of opportunity. Here,

now, there is still the chance to protect huge parcels of land owned by just a few people. The level of encroachment at places like Fort Bragg serves as a cautionary tale and an impetus to quickly protect what's left of these plains. "If we wait another 10 years," Warren says, "we'll be dealing with maybe hundreds of landowners, and that window will be closed forever."

Gordon and Fort Stewart.

Recently Warren's team was asked to study the cost-saving effects of buffering these ranges. The conclusion was a real eye-opener, Warren says: "The cost of not entering into the buffering agreement is that we lose the ranges. And there is no place left to rebuild them. It is an irreplaceable resource." Irreplaceable for the military—and for wildlife.

For More Information

NatureServe: Species at Risk on Department of Defense Installations

Department of Defense lands are thought to support more federally listed species than any other major federal agency, and to harbor more imperiled species than lands managed by either the National Park Service or U.S. Fish and Wildlife Service. With this scientific report, learn the key findings about species at risk on military bases and how proactive conservation efforts can protect them.

Save of the Week: Fort Carson

The Nature Conservancy is working with the U.S. Department of Defense under the Army Compatible User Buffer (ACUB) program to conserve hundreds of thousands of acres of important habitats while also ensuring military preparedness.

The Colorado Grasslands Project

A summary of three innovative projects in Colorado aimed at protecting diminishing grassland habitat, primarily in the eastern prairies of the state.

Northwest Florida Greenway

The state of Florida, the U.S. Department of Defense and The Nature Conservancy are working to establish a 100-mile protected corridor that connects Eglin Air Force Base and the Apalachicola National Forest.

Conservation Projects on Military Bases in Georgia

The Conservancy is currently working on conservation projects at Fort Benning, Fort