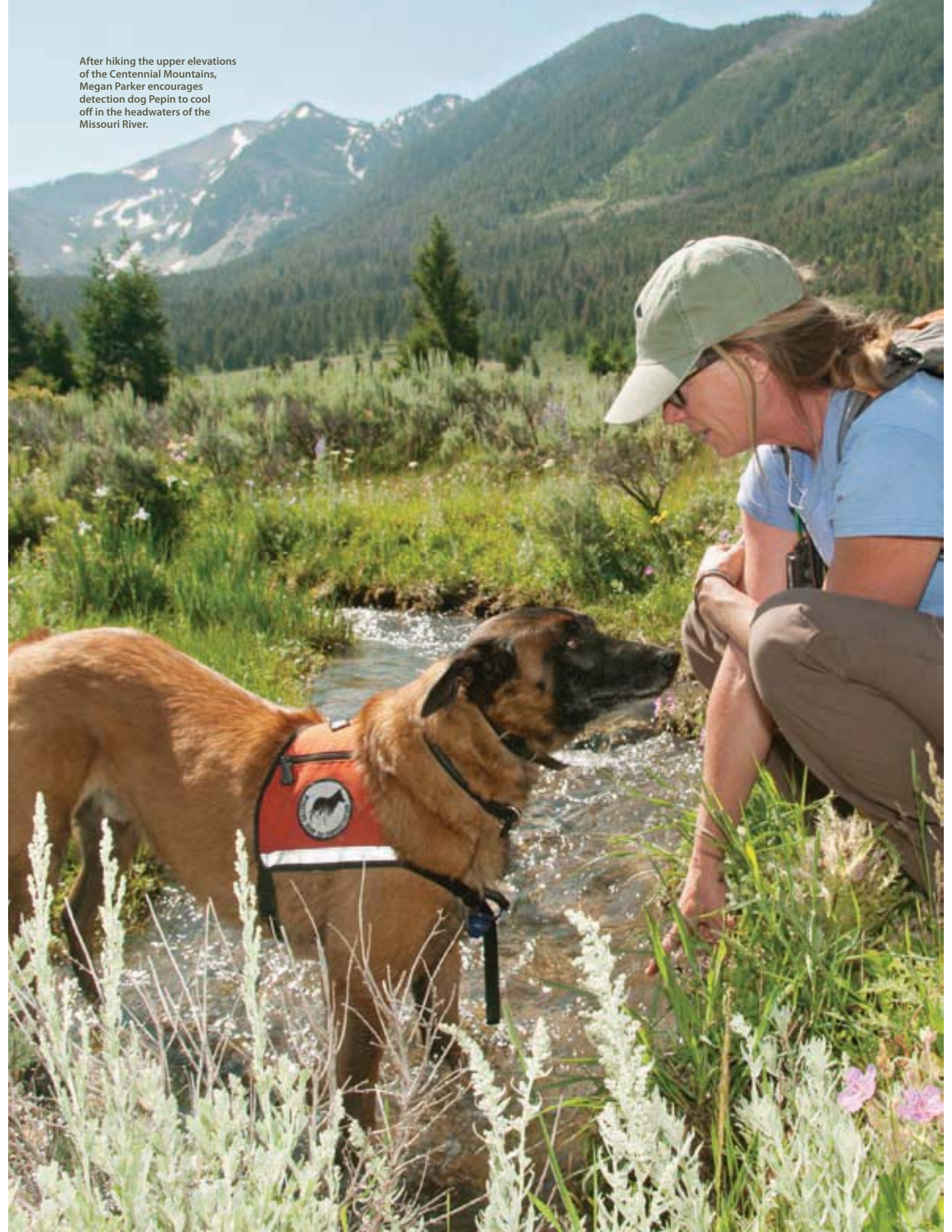


After hiking the upper elevations of the Centennial Mountains, Megan Parker encourages detection dog Pepin to cool off in the headwaters of the Missouri River.





On a Humane Society Wildlife Land Trust property, a dog detective puts his senses to work for the greater good of the animal kingdom

Nose ON THE Range

text by DOUGLAS H. CHADWICK ■ photos by KATHY MILANI

The door to the cabin swings open, and a voice shouts: “Grab anything that can be knocked over!” Suddenly, everybody is scrambling to reach open water bottles, leftover juice, binoculars, cameras—Pepin is here, and we’ve all learned that this lanky, 80-pound dog with the probing nose and lashing tail has a way of being not just in a room but everywhere in it at once.

Fortunately, we’re not indoors much. We awake before dawn each morning and head straight out into southwestern Montana’s Centennial Valley and the Centennial Mountains on the valley’s southern side. Dominated by 10,203-foot Mount Jefferson, this range of peaks forms the Continental Divide, looping away from its usual north-south course to run east and west here at the juncture of Montana, Idaho, and Wyoming. The summits still glitter with snowfields at the end of July. Everything below is lit by wildflowers exploding into bloom after an exceptionally wet June.

With the rugged Madison, Gravelly, Snowcrest, Greenhorn, and Tendoy ranges converging from the north, the Centennial area is a nexus for wildlife roaming this section of the Rockies. That’s why we’re here. Pepin, a breed of shepherd known as a Belgian Malinois, is a detection dog. His handler and favorite human, Megan Parker, is putting his skills to work searching for droppings and other signs of the region’s largest, toothiest creatures: namely grizzlies, black bears, cougars, wolves, wolverines, and fishers.

Our focus is Roaring Creek Ranch at the very upper end of the 385,000-acre Centennial Valley, owned by Tony and Donna Demetriades and protected through conservation easements administered by the Humane Society Wildlife Land Trust. Executive director Bob Koons wanted to learn more about the role the preserve plays in the daily lives of large carnivores and in their prospects for long-term survival. As a first step, he hired Parker’s nonprofit organization, Working Dogs for Conservation, to come have a look—make that a sniff—to see who’s been padding by.

This morning, Pepin sets off zigzagging at Malinois speed, guided by simple voice commands and hand signals from Parker while she follows a course from the ranch’s antelope-tracked lower slopes of sagebrush and grass toward the upper elevations, cloaked in pine and fir. The rapport between the woman and the dog is so pronounced, you feel you could practically reach out and pluck it like a finely tuned musical string. We’ve barely left the Demetriades’ cabin near the bottom of the property before the hazel-furred dog drops onto his belly and fixes Parker with a stare, his signal for a discovery. His outstretched paws even frame the prize. It’s a heap of bear poop. For carnivore fans, this counts as a fine way to start the day.



Many of the dogs the foundation puts into service come from shelters or rescue groups. Parker inspects a thousand or more dogs for each one she finally selects. “We look for really high-energy animals from working breeds like shepherds and Labs,” she says. “Families expect them to act like other pets, but when they aren’t given a job, some become totally obsessed with a toy or develop other kinds of neurotic behavior. The owners think they’re crazy. They’re the dogs most likely to get sent to a shelter and the ones most likely to be put down because nobody will take them. It’s so rewarding to use a dog that was being thrown away. I think of what we do as double conservation. We help save dogs, and they help save wildlife.”

On the Scent of Carnivores

Parker earned her master’s degree in ecology studying birds of prey and her Ph.D. researching African wild dogs in Botswana. Working with the Wildlife Conservation Society, she used detection dogs to

define movement corridors for the expanding grizzly bear population of the Greater Yellowstone Ecosystem. She and her working dogs are now slated to carry out detection surveys for lions, cheetahs, African wild dogs, and hyenas in Zambia. Yet as she reaches into her belt pack to draw out a sausage-shaped strap designed to be chewed on, Parker quips, “I’m really just a toy delivery system.” Engaging Pepin in a brief, playful tug-of-war over the thing while giving off whoops of encouragement, she pauses long enough to explain, “This is his paycheck. He gets a few moments to play with his toy, gets a drink”—from a water dispenser in Parker’s backpack—“and on we go.”

Yes we do, straight up until we’re beyond the ranch and starting to encounter boulderfields and avalanche chutes on the Centennials’ face. We move across an open slope, then start another transect, going downhill. Pepin leads the way to more scats, as biologists refer to carnivore dung. Like the claw marks on nearby logs ripped open in search of insects, most of the droppings appear to be from black



Willow brush and crimson-colored Indian paintbrush on the right bank—and silvery sagebrush and yellowish potentilla shrubs on the left—are signs of renewal for Hell Roaring Creek’s streamside habitat. The waterway splashes through land permanently protected by Humane Society Wildlife Land Trust conservation easements.

bears. But we can’t rule out a small grizzly. I followed fresh grizzly tracks on the ranch during a previous visit, and people have reported several of the silvertipped bears around the valley this summer. To be absolutely certain which species left which scat, a sample from each one we find today will be sent to a laboratory for DNA analysis.

I catch up with Pepin under the branches of a big Douglas fir, where he’s investigating a comfy-looking spot that served as a bear bed—maybe for a family, since there are cub-size scats around. A different scat next to the tree trunk tells me that some other carnivore liked this nook as well. Pepin’s lack of interest means that it wasn’t a fisher or wolverine. Coyote? Bobcat? Marten? These smaller predators are common enough in the region that he isn’t targeting them during our survey. It’s a good thing vege-

tarian poo isn’t on his agenda, either. There are so many mule deer, elk, and moose pellets underfoot that we’d never get anywhere.

At the end of the day, Parker takes Pepin to a brook for a long drink. There, he finds one more bear scat—on the bottom of the stream, beneath a foot of chilly water. How he was able to detect that is a mystery to us humans with our third-rate sense of smell. His feat only emphasizes the value of trained dogs in wildlife surveys. Parker and her staff currently have nine under their care. While Pepin is busy here, some of his nosy colleagues are headed to Alaska to assist bear studies. Before that, they helped census animals from moose to endangered black-footed ferrets.

“The dogs can be specifically trained for almost any project: elk, marten, sage grouse—whatever,” Parker says. Since virtually every organism has a signature odor, “whatever” includes plants, too. Lately, her canine crew has been homing in on invasive weeds such as yellow star thistle. “If you don’t stop it, the stuff just takes over,” Parker continues. “Horses eating star thistle get what’s called

‘chewing disease,’ which can be fatal. In Iowa, we were locating Chinese bush clover to prevent its spread on a wildlife refuge.” Her dogs’ success at picking out Kincaid’s lupine from more common lupines in Oregon proved invaluable to a program aimed at preserving this native plant. “Otherwise,” she notes, “you’d need an expert botanist along scrutinizing every lupine with a magnifying glass to tell which kind it is.” Displaced by agriculture and exotic weeds, Kincaid’s lupine is on the threatened species list, and it happens to be the main food source for the larvae of the endangered Fender’s blue butterfly.

Restoration and Permanent Refuge

Unlike most of the U.S. today, the Centennial landscape still supports virtually all its original flora and fauna in healthy populations: “a case study of good preservation done in many different ways, by many organizations,” says Koons.

In 1986, the Demetriadeses placed conservation easements on 240 acres, permanently restricting subdivision, roads, and other kinds of development. They also banned hunting, effectively creating a modestly sized sanctuary. Nearly three years ago, they transferred the property title to their three sons and chose the Wildlife Land Trust, an HSUS affiliate, to administer the easements. The family felt that their vision for this place aligned perfectly with the land trust’s goal of working with landholders to protect wild animals and the habitats they depend upon for generations to come. The couple, in turn, fulfills the land trust’s ideal of legacy-minded landowners who recognize that property value extends far beyond the monetary realm. The Demetriadeses “are extremely passionate about their land,” says Koons, “and that sense of love and honor of the land, and of place, comes the first time you meet them and talk to them.”

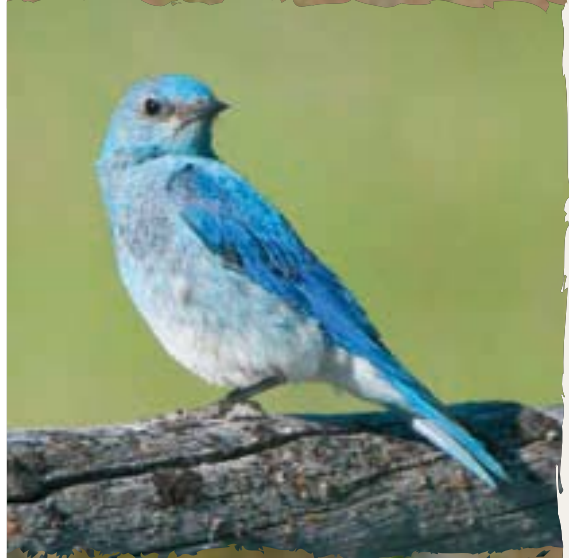
Although Roaring Creek Ranch is only a small link in the valley, it’s a pivotal one because of its location. The upslope boundary adjoins the Beaverhead National Forest and is close to a wilderness



Tony and Donna Demetriades



Pronghorn antelope, western bluebird, and Indian paintbrush—just a few of the native gems found in the lush Centennial Valley. Aerial predators animate the sky, sustained on the region's rich variety of food.



study area. The ranch's lower end borders the road running the length of the valley. Step across that gravel route, and you're on acreage soon to be added to Red Rock Lakes National Wildlife Refuge, set aside in 1935 to safeguard the last trumpeter swans left in the 48 contiguous states at the time. Take the road less than a mile east to where it goes over the Divide through Red Rock Pass, and you're in Idaho's Caribou-Targhee National Forest. Continue east another 25 miles, and you've reached Yellowstone Park in Wyoming.

Splashing cold and clear down through the middle of the Demetriades' acreage is the waterway the ranch is named for: Hell Roaring Creek, the ultimate headwaters of North America's longest river, the Missouri. Roaring Creek Ranch is the first private land this flow touches on a 3,745-mile journey from the Centennials' crest to the Gulf of Mexico.

One day while we're surveying Hell Roaring's brushy shores, a cluster of people appears downstream. They're from New York City, I learn, part of an urban youth program. Under the direction of Brad Bauer, a land steward for the Nature Conservancy, the teenagers are taking measurements of the stream. Bauer describes how past overgrazing by open-range cattle stripped away the riparian, or streamside, habitat favored by many small mammals and nesting songbirds. As root systems stabilizing the stream banks were lost, erosion increased, and the pebble beds preferred by fish for spawning began to wash away.

More than a decade ago, the Conservancy joined with private landowners and public agencies to start repairing the damage. One of their goals is to restore habitat for imperiled arctic grayling, who once spawned in Hell Roaring Creek. With the Demetriades' blessing, they put up electric fencing to keep the ranch's riparian zone off-limits to passing livestock. Next, they planted willows, and—"Well, look around," Bauer says. "It's really come back. The brush will add shade to cool the water for grayling. Our other goal is to get the creek flowing in lots of its old, shallow channels again instead of in a few deep gullies."

Upstream, we're scrambling Pepin-style on all fours through a steep-sided canyon when we look up to see a pair of peregrine falcons circling a promontory. Beginning in 1982, the Demetriadeses allowed biologists to camp on the ranch each spring and summer for 10 years while attempting to reintroduce these rare birds of prey to the Centennials. The effort paid off. I have yet to visit the valley without being able to watch peregrines outrace the wind. Scientists conducting moose censuses and water quality studies have also enjoyed the Demetriades' support and hospitality. And here we are sipping their coffee on a break from surveying large carnivores. It's inspiring to learn how many ways one family can contribute to the natural community around them.

"We never get tired of walking this place," Donna Demetriades says as she sets out cookies. "These animals, these views; they're always here for us to enjoy—and to love. My hope for the future of this valley? Just to keep it the way it is. That's all I ask." She knows what sort of things prove most valuable over time. She ought to. Donna is 87 years old.

Tony Demetriades, a mere 81, adds, "You watch a moose in the morning, and your day is set. We like the bears and the badgers—all the animals. They can exercise their right to live here. This place is protected forever. That's a mind-blowing idea, you know."

The Elements of Survival

The Demetriadeses are by no means alone in their desire to sustain the quality of life in this mountain setting. Louise Bruce, field representative for the Centennial Valley Association, once told me that of the area's 60-some landowners, 42 are members of her group. "Our common goal is to maintain working ranches and not see them turn into hundreds of little ranchettes." A majority of the private landowners have arranged ease-



ments with various nonprofit conservation organizations or the Red Rocks refuge to limit development and maintain healthy habitats.

Meanwhile, the Wildlife Land Trust has partnered with the Centennial Valley Association and the Nature Conservancy to control invasive weeds and replace traditional fencing with versions easier for migrating pronghorn antelope and other wildlife to cross. And now the land trust is poised to acquire an easement on one more key property close to the refuge. Put such private protection efforts together with mostly unspoiled public lands, and you get a whole much greater than the sum of its parts—a guarantee that animals can keep moving freely, exchange genes with other populations, replenish outlying groups, and adapt to changing conditions. This is their surest hope for survival over the long run.

As we bid the Demetriadeses goodbye for the day, Parker tells me, “Getting to meet folks like them is another reason I love this work.” The comment brings to mind her phrase for what she does: double conservation, helping save dogs who help save wildlife. While Pepin was purchased from a reputable breeder, several of his teammates once sat in shelters with uncertain futures. Working Dogs for Conservation’s website details the stories of dogs like Wicket, a black Lab mix from a Montana shelter whose claim to fame is finding 52 scats in one day. And there’s the border collie cross whose obsessive drive didn’t appeal to potential adopters; Orbee’s speed, intelligence, and enthusiasm are now applied to conservation work.

How many of us have looked at a high-energy dog dashing back and forth in a little fenced yard, barking his head off, and

thought: A pet like that needs a bigger yard, a place to run and dig and play, a place to be the kind of dog he was meant to be? Part of the challenge of nature conservation is getting people to take the next step and ask themselves what kind of place a wolf or coyote needs. Or a moose, antelope, bear, or wide-wandering wolverine. Where is she supposed to run and eat and play and rear her young? How do we create room for each to be the kind of animal she was born to be? I’m pretty sure that some of the answers are on display in the Centennial Valley.

By afternoon, the temperature has grown too hot for Pepin to keep working. Back at our temporary quarters, I head to my room for a quick nap. Through an open window, I can hear sandhill cranes calling overhead as they fly from the refuge toward the upper end of the valley, where Tony and Donna Demetriades will be sitting together on their porch, watching to see what kind of wildlife comes by next.

Passing another room, I see two strong, long-legged, remarkably high-energy creatures inside: Pepin and Parker. Both are sound asleep. She has one arm draped over his shoulder, and he has a foreleg sprawled across her neck. This is the image of double conservation I will carry with me after I leave. ■

► **DOUGLAS H. CHADWICK** is a Wildlife Land Trust volunteer and freelance writer based in Whitefish, Mont. He wrote an adaptation of his book *The Wolverine Way* for the March/April 2011 issue. View a slideshow of the Demetriades’ property at humanesociety.org/allanimals.



Into the Wildwood

Couple celebrates love of nature
by patrolling wildlife havens

by RUTHANNE JOHNSON

When Arkansans Mark and Cindy Harbour retired from long Air Force careers—he as a lawyer and she an accountant—they did what any nature lovers would do after years of being cooped up in an office. They traded in their work garb for hiking gear, slathered on insect repellent, and headed into the northern Arkansas wilderness to hike the abundant trails and canoe at least some of the state's thousands of stream miles.

"Being in the outdoors is a way to recharge your battery," says Mark, who grew up wandering the creeks of the Ozarks. His wife grew up in Montana, hiking trout streams alongside her father.

Soon it seemed the Harbours had explored every trail near their Fairfield Bay home. Then in 2000, they found a possible new hiking spot about 20 miles away. A sign designated the land as protected by the Humane Society Wildlife Land Trust: no hunting or trapping allowed. Wondering if they could hike the property, Mark called the land trust and spoke to director of stewardship Jim Reed. The conversation led to an invitation for the Harbours to become volunteer monitors of a 114-acre sanctuary in northeast Arkansas, about 120 miles north of their home.

Once trained, the Harbours dove enthusiastically into their new job: protecting wildlife from poachers and trespassers. The Wildwood Wildlife Sanctuary would

provide new wilderness to explore—an area rich with mature timber, cedar thickets, and a pond.

They began traveling to the property about four times a year, making each visit a mini-adventure with flea market and antique shop stops along the way. Once on site, blanketed by supreme quiet and the smell of cedar, they walk the property looking for evidence of human intruders but usually finding only wildlife signs—wild turkey scratches and feather caches, white-tailed deer rubbings on trees, and lots of raccoon, skunk, and opossum tracks at the

**They look for evidence
of human intruders
but instead find turkey
scratches, feather caches,
and raccoon tracks.**

pond's edge. In the water, Mark often sees box turtles, salamanders, and leopard frogs: "really beautiful olive green frogs with dark spots and bright green stripes who make a chirping sound when they are hopping away from you."

By 2003, Mark had started a second career as a science teacher, and Cindy as a police officer. But they readily accepted Reed's offer to take a newly available position monitoring the site they'd discov-

ered in 2000: the 1,241-acre Meadowcreek Wildlife Sanctuary. Featuring oak and pine forest, bluffs, creeks, a river, and waterfalls, Meadowcreek is not without human intrusion, mainly because of a county road running through the property.

Although Mark has never encountered poachers, he often picks up trash and confronts people four-wheeling off-road, a practice that damages habitat for ground-nesting birds such as quails, wild turkeys, and sandpipers. The Harbours visit Meadowcreek every month, walking about one-fifth of the property and looking for signs of poaching such as deer stands and human tracks. They've encountered an abundance of wildlife: a 6-foot rat snake, Cooper's and red-tailed hawks, blue herons, egrets, and bats. There are beaver ponds and signs of a resident black bear, plus the smell of honeysuckle and other native plants. But the couple's favorite spot is atop the bluffs for lunch. "You can just see forever. You are up above the eagles and hawks and buzzards," Mark says.

For 2009, the land trust named the Harbours volunteer monitors of the year. "We never expected anything like that," says Mark. "We just sort of had fun."

▶ **THE WILDLIFE LAND TRUST'S 50-plus volunteer monitors help safeguard dozens of properties. Find out how you can help at wildlifelandtrust.org.**