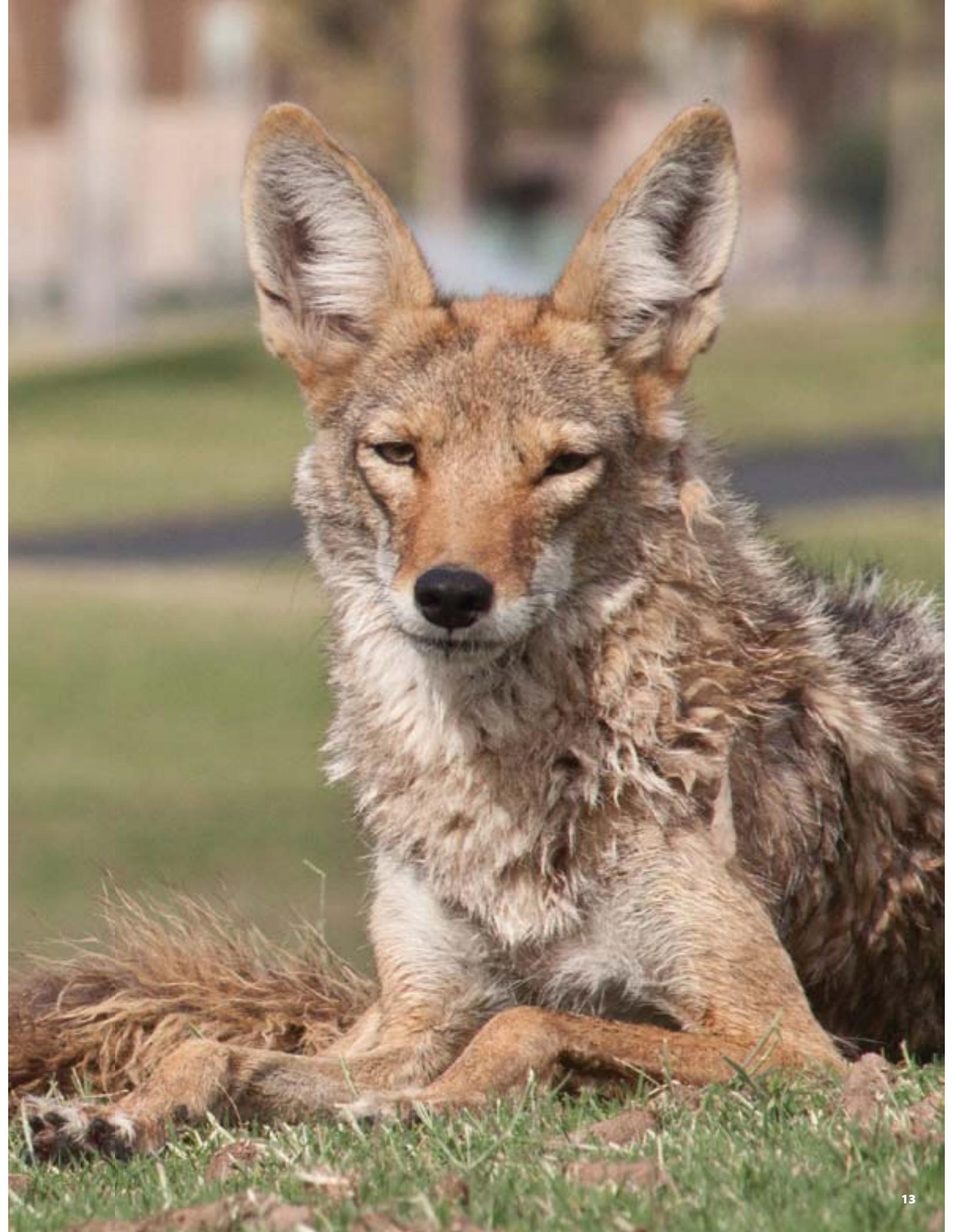

COYOTES AMONG US

RELATIVELY NEW ARRIVALS IN URBAN AMERICA, COYOTES THREAD CITY STREETS LIKE GHOSTS, LARGELY OUT OF SIGHT.



In response to rare attacks and the fears that result, some people resort to killing, which doesn't prevent future encounters. But others are figuring out how to coexist with an adaptable predator who, whatever we do, is here to stay. This grand experiment is playing out as researchers unlock the species' secrets. They're discovering better ways of getting humans to avoid conflict, protect pets, and live alongside their new neighbor.

by KAREN E. LANGE
with reporting by RUTHANNE JOHNSON



ABOUT THIS SERIES

This is the second story in a two-part series about the targeting of coyotes in rural and urban environments. Writer Karen E. Lange interviewed dozens of sources, including HSUS experts and other coyote advocates, scientists, and former and current government officials. Read the first story, which examined the federal Wildlife Services killing program, at humansociety.org/allanimals.

been killed. When they got there, they found three coyotes. Two of them continued to linger in a canal below the park.

"I made a determination that these animals were ... aggressive ... [and] selected these two for lethal control," wrote an officer. "... One of the coyotes was shot twice and the second was shot once with the departmental suppressed .223. ... As we were walking up on the second animal, it attempted to get up. ... [Another officer] discharged his sidearm once into the animal from close range. ... [The first coyote] was a male approximately 40 pounds and the second was a pregnant female."

It's easy to get the impression from police reports that despite advice to pet owners to keep their cats inside and their dogs close by, despite officers handing out whistles to scare off coyotes (police have spent more than 1,000 hours teaching hazing techniques), despite residents banging pots and pans, in the end there's no other way to deal with these animals than to shoot them. Yet just a short distance away—across the city's southern boundary of Orchard Road—the suburb of Centennial has chosen a far different, nonlethal approach, one endorsed by leading urban coyote experts and animal protection groups, and one that appears to be working elsewhere. What's happening in Centennial is part of an experiment in coexistence being conducted in communities across the country, with encouragement from The HSUS and other advocacy groups. The search for a way to get along is especially intense in the Denver metropolitan area, where a rash of coyote attacks against humans—at least 13 bites—has occurred since the mid-2000s.

In Centennial, just as in Greenwood Village, coyotes are frequently spotted—some travel between the towns. And Centennial's official coyote management policy doesn't read too much differently from Greenwood's. It includes enforcing a state law against feeding wildlife and a local law that dogs must be kept on leash, since the vast majority of conflicts with coyotes are caused by humans providing food or letting pets roam. But in Centennial no one shoots coyotes on orders from the city, and no one likely will, unless a person is bitten. It's a different culture, says revenue manager Karen Stickland: Dogs don't take priority over wildlife. Anyway, she adds, Centennial relies on the Arapahoe County Sheriff's Office for law enforcement, and "the sheriff told us there was no way we were killing coyotes."

Instead, the city relies solely on nonlethal means: tracking complaints to identify areas where animals may have become habituated and lost their fear of people. Educating the public not to feed coyotes, intentionally or unintentionally. Recruiting volunteers to hand out information and hazing whistles. Instructing people to secure garbage in sealed containers, keep pet food inside, collect fruit fallen from trees, clean up birdseed, and make sure pets don't roam and aren't left alone in yards, especially at night. Teaching residents to



Snuggling in a drainage pipe, two coyote pups in Denver await the return of a parent with food. Preceding page: A coyote lounges on the edge of a golf course in Scottsdale, Ariz., relaxed enough that he let a photographer approach within 50 feet.

After the sharpshooter the city council hired got death threats, Greenwood Village, Colo., asked police to take care of coyotes within the wealthy Denver suburb. A 14-year-old said he'd been charged by a coyote in a park on the last day of 2008. The boy was uninjured, but in early 2009 his mother demanded the animal be killed. Other residents, especially those whose dogs and cats had been attacked, also asked for lethal control. People were scared, confused, and angry.

In an effort to protect coyotes, local volunteers organized by WildEarth Guardians patrolled city parks, chasing away any of the animals they found. But the police lured in coyotes with distressed rabbit calls and shot them. They pursued animals flushed from cover, firing silencer-equipped weapons close to homes. They wounded fleeing animals, losing them in culverts and underbrush. By the end of the year, police had killed at least a dozen "dangerous and menacing" coyotes.

Today, the killing hasn't stopped. After bad press and relentless criticism from animal advocates, police have only become more secretive and better at placing shots. Officers respond to complaints in plain clothes and unmarked cars. They dispatch coyotes with a Remington .223 rifle, bagging the animals and dropping their bodies in dumpsters. During a six-week period last fall, officers shot 12 coyotes, raising the total killed to 32—though not a single person has been bitten.

Shooting coyotes is supposed to be a last resort in Greenwood, used only if nonlethal means of keeping them at bay fail, according to the village's official policy, adopted in early 2009. But the village also hopes to "thin" and "stabilize" the coyote population, according to a police memo. So if police see a coyote in an area where they've heard of the animals behaving aggressively—toward pets or people—officers gun him down.

On Feb. 15 of last year, someone called police to say that coyotes were eating a golden retriever near some tennis courts. There's no evidence that a golden retriever was actually attacked, but police rushed to the park under the impression that someone's pet had

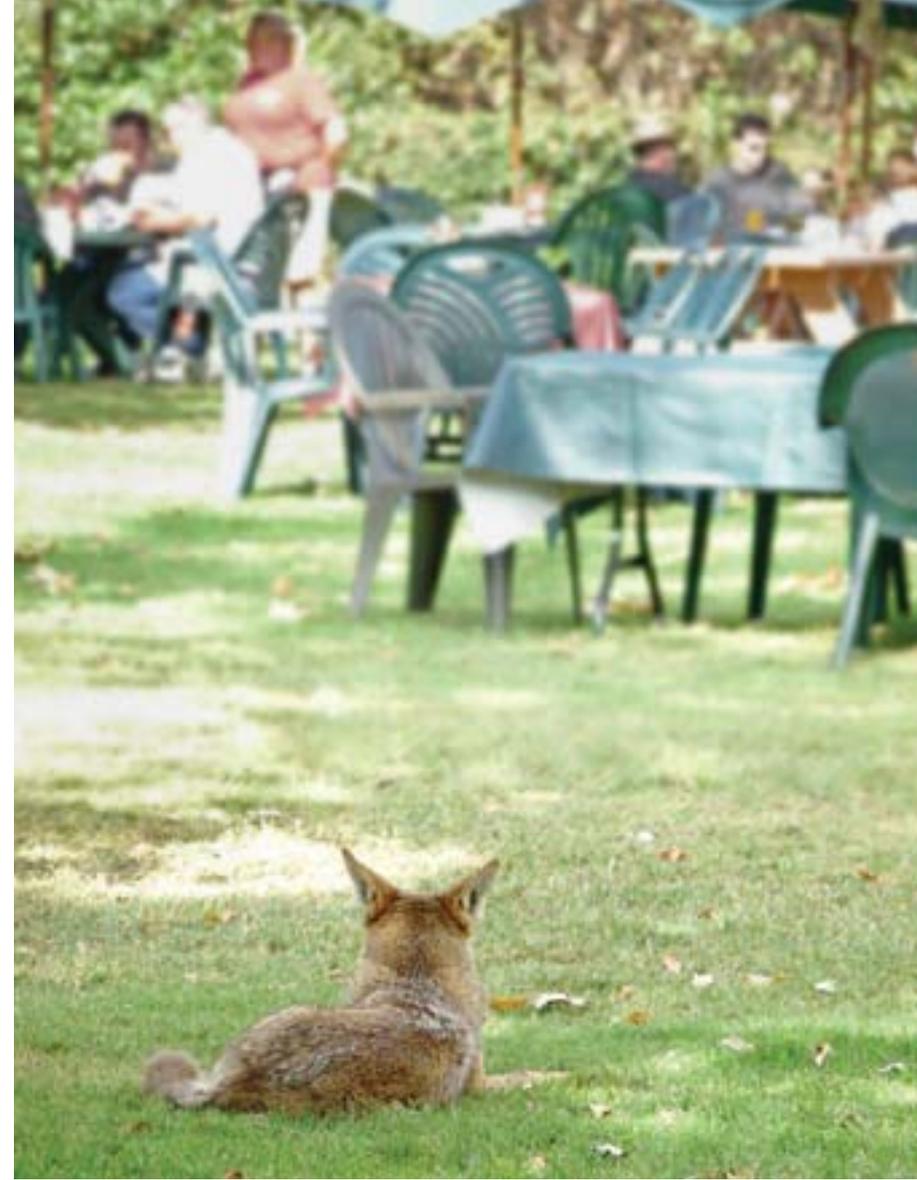


Jepsy

WHAT HAPPENS WHEN PEOPLE FEED COYOTES

Signals from tracking collars trace the movements of two coyotes in early winter on Aquidneck Island in Narragansett Bay, R.I., where wildlife biologist Numi Mitchell does research. Jepsy (above, red) eats mostly natural food—mice, deer, rabbits, groundhogs, and roadkill—and follows a pattern typical for wild coyotes, patrolling the perimeter of his territory. But Phantom (above, orange) eats mainly cat food left out day and night by the caregiver of a feral colony. (Best management practices call for food to be taken in after feeding times.)

Because Phantom doesn't need to roam to find food, his territory is much smaller and his movements take him mostly back and forth to the cat colony (white dot), crossing through the surrounding neighborhood several times a day. Since he's gotten used to people, he's active at the same times humans are, rather than asleep like most urban coyotes. The abundant supply of cat food means Phantom's family group is larger—he fathered seven pups in a single litter—so there are more coyotes per square mile. And since Phantom doesn't much patrol the boundaries of his territory, other coyotes have moved in, further increasing the density and the likelihood coyotes will eat residents' pets or otherwise come into conflict with people.



Resting in the grass, a coyote watches a park in Huntington Beach, Calif., fill up with people on a Sunday morning. Later, the coyote moved to a neighboring café, where people and their dogs were eating breakfast. Someone chased him away. A call was made to animal control. The coyote might have been hazed and taught to stay safely away from humans. But instead he was killed.

protect their dogs by walking them on short leashes, and grabbing and holding small pets if they see a coyote. And training people to haze the coyotes they encounter by facing them down, yelling, throwing rocks, and otherwise harassing the animals until they retreat and once again learn to be wary of humans.

Hazing is key, says HSUS urban wildlife specialist Lynsey White Dasher, because it quickly teaches coyotes the behaviors that humans will not tolerate—information the animals then pass on to pups and other members of their family groups.

“We’re not teaching coyotes anything by shooting them.”

URBAN LEGENDS

It used to be that city folks didn’t need to know much about coyotes. But over the last few decades, the animals have quietly slipped into the backyards of most of America—every state but Hawaii, every major population center except Long Island (which they are now starting to colonize, after passing through Manhattan). During the 1940s, 50s, and 60s, after the gray wolf had been exterminated, coyotes expanded throughout North America. Family groups had pups

who grew up and looked for their own territories, continually expanding the species’ range. As coyotes moved from the Midwest into the Northeast and eastern Canada, they bred with wolves: The resulting coywolves are larger and can appear more threatening to people but actually behave no differently toward humans than their smaller western cousins, says wildlife biologist Jonathan Way, who studies coyotes on Cape Cod and is researching the emergence of what may be a subspecies. Eventually, when coyotes of both types had filled up all the space between suburbs and cities, only urban habitat was left for the taking. So they moved into neighborhoods and became a fact of the city landscape.

They live on the margins, like ghosts—in parks and pockets of forest, in cemeteries, golf courses, and vacant lots, along irrigation ditches, canals, and train tracks. They’re right at our elbows but mostly lurk just beyond our sight, emerging at dusk and disappearing again at dawn, in their own separate world. While rural coyotes are active day and night, urban coyotes alter their schedules to avoid humans. Even wildlife biologists reading signals from tracking collars have a hard time spotting the animals. Because of this, the number of human-coyote conflicts is very low—so small that up until now researchers haven’t been able to collect enough data to figure out why they occur. Stanley Gehrt of Ohio State University, who’s been studying coyotes around Chicago since 2000, says the animals who get into conflicts with people represent maybe 1 percent of the population.

With access to abundant food and higher survival rates (the most common cause of death is probably motor vehicles), coyote populations in some cities and suburbs have grown denser than in the grasslands where the animals evolved more than a million years ago.

Urban coyotes eat small mammals such as rabbits, rodents, and groundhogs, along with Canada geese eggs, road-killed deer, fruit, birdseed, insects, garbage, and every once in a while (just 1 or 2 percent of the time) pets. As the top predator in the urban ecosystem, they actually perform an important role, eating animals whose reproduction might otherwise lack natural controls.

Occasionally, food or the presence of pet dogs attracts coyotes to backyards or parks or trails. They can jump a 6-foot fence and be in and out of a yard in minutes, carrying off unattended pets. They see larger dogs as competition, especially during the December to March breeding season, and will follow at a distance to re-mark territories or, rarely, attack to kill.

Nearly everyone accepts that coyotes who bite people must be euthanized. There’s also agreement that killing coyotes beyond those rare individuals doesn’t reduce their numbers long-term or prevent conflict. The consensus is shared by Gehrt and Way; by Seth Riley of the National Park Service, who has studied them in Southern California; by Numi Mitchell, who has studied them in Rhode Island; and by Paul Curtis of Cornell University, who has

studied them in Westchester County, north of New York City.

"It doesn't really matter what communities think or what people think; coyotes are going to do what they do," says Gehrt, who calls the animals "the most resilient of all wildlife species." "People hate them to death, and it doesn't really matter—if coyotes want to live in cities, they're going to live in cities. ... They always overcome everything we throw at them."

Research has shown that when coyotes in a given pack are killed, the survivors reproduce at a younger age and have larger litters, with a higher survival rate among pups. Even if more than half of the group is killed, it can bounce back within a year. Meanwhile, new coyotes move into the vacant territory. Way has actually documented increased densities in Massachusetts after killings. Mary Ann Bonnell, lead naturalist for the Denver suburb of Aurora, calls this "coyote math": 2-2=2, or 3, or even 4.

Regardless of the small number of attacks and the ineffectiveness of killing, some people persist in indiscriminate lethal methods. In some places, they see coyotes as varmints and kill them for sport. Several coyotes Curtis was studying were trapped and shot. He found the radio collar of one under a rock in a stream. Way feared he lost one to a person who set out bait in his yard then shot the animal from his home.

In other places, the relatively sudden arrival of coyotes is perceived as an invasion. Birds and raccoons and opossums are OK. But coyotes just don't fit the image people have of the wildlife that should appear in their backyards. And if they have mange, which some do, they can look sinister—diseased, missing large patches of fur, moving slowly where a healthy coyote might be trotting or running.

PEACE AMBASSADORS

Mitchell, the Rhode Island researcher, began her study in 2004 after what seemed like an explosion of alarmingly bold animals on

Aquidneck and Conanicut islands in Narragansett Bay. Coyotes were taking little dogs and making some people afraid to venture into their yards (though others were happily feeding the new neighbors). The bay had frozen in the mid-1990s, and around the same time coyotes somehow reached the islands—by walking over the ice or making it across a highway bridge. Mitchell found that the coyotes were attracted to certain areas and able to have larger than normal litters because of around 100,000 pounds of meat just there for the taking: livestock carcasses piled in dumps during the winter because the ground was too hard to bury them, and deer left along the road after being hit by cars. She developed a plan for nonlethal control. But, before she knew it, last year the police in Middletown started shooting coyotes. Mitchell had to use her powers of persuasion.

"I told them, 'Wait a minute, you're going to make things worse—you shoot out the territorial residents and you've got anarchy!'" says Mitchell. "... [Killing coyotes] creates a sink, a vacuum, into which all the coyotes who don't have a home go."

The police stopped shooting, and communities turned to nonlethal means. Middletown adopted an ordinance under which people are warned and then subject to increasing fines up to \$500 per day for the placing of attractants. To reduce the carcass supply, Mitchell created composters that dissolve dead animals in potassium hydroxide and warm water, producing fertilizer. To pinpoint areas where people are feeding coyotes, she launched a "coyscouts" program that tracks selected animals using collars that report their locations every 15 minutes. "A lot of times [people will] say, 'Oh, no one's feeding the coyotes.' We post the data online so they're going to see that Mrs. McGillicuddy's yard is a mecca."

The HSUS's White Dasher monitors news reports of urban coyotes from across the country and, when communities are poised to kill, convinces them to try nonlethal approaches. She did it in 2010

1%
of coyotes
come into conflict
with people

Source: estimate from researcher Stanley Gehrt, Ohio State University

COYOTE HYSTERIA

HOW MEDIA COVERAGE STIRS UP FEARS

Coyote attacks are rare, says researcher Stanley Gehrt. In a 2009 paper, he and The HSUS's Lynsey White Dasher also found that many attacks are not predatory. Coyotes may be defending pups, they may feel cornered, or they may bite people who are protecting pets coyotes view as prey. Sometimes coyotes used to getting food from humans bite people merely because they're expecting something to eat, as a poorly behaved pet dog might. Sometimes

they bite humans sleeping outside or sunbathing—it's not clear why.

But sensationalized headlines and news reports often paint a different picture. A 2011 University of Calgary study examined Canadian news reports of coyote interactions with people and pets from 1998 to 2008. Inflammatory language used to describe coyotes included "marauding," "attacking everything that moves," and "a death machine."

People are far more likely to be bitten or killed by domestic dogs than coyotes: 4.5 million people are bitten by dogs every year versus fewer than a dozen on average by coyotes. A person's chance of even seeing a coyote is very low. But you wouldn't know that from news reports.

"It's a risk perception, and it's not managed well, thanks to the media," says Aurora, Colo., lead naturalist Mary Ann Bonnell. "The media fans the flames."

WILY COYOTE:
TRAP LAID FOR URBAN MENACE

The neighbors are looking

SWAT Team Tackles New Orleans Coyote Invasion

It's going to be a coyote pack full of...

**Brazen Coyotes
Menace Coeur**

in Wheaton, Ill., which had hired a trapper but soon asked a city administrator to research and draft a nonlethal plan. And she did it again in Calcasieu, La., in 2011. In both places, complaints dropped off steeply, and no one has been bitten. White Dasher has provided hazing training to more than 100 animal control officers in San Diego County, the Minneapolis-St. Paul region, southern Louisiana, and elsewhere. This year, The HSUS and the California-based nonprofit Project Coyote are trying to block a plan to kill coyotes in Carson in Southern California, a region that perhaps because of its geography—canyons full of homes surrounded by hills full of wildlife—has for decades led the country in reports of coyote attacks. Project Coyote already brought nonlethal management to Calabasas, another Los Angeles suburb.

There's a debate among experts over whether hazing works in all situations and whether it's an appropriate response to habituated coyotes who grow increasingly aggressive. Some argue that once coyotes have learned approaching humans is safe and may yield food, they can't relearn their fear of people and should be killed before they attack. This viewpoint was promoted by a prominent 2004 review of coyote attacks, which has since been criticized for its conclusions; two of its authors work for Wildlife Services, a federal program that kills coyotes at the request of ranchers and state and local governments. But the study is widely read and often cited by communities as a reason for trapping and shooting.

White Dasher, who assisted Gehrt with his research and has written papers with him on urban coyote attacks, is firmly in the camp of those who believe hazing is the best and most effective response unless a coyote bites a person. Hazing relies on the coyote's innate adaptability. Coyotes are smart. In Native American stories, they're depicted as tricksters. They can quickly learn to avoid people.

Perhaps the clearest demonstration that hazing works comes from Denver, where Ashley DeLaup became the city's wildlife ecologist in 2008 just as coyote complaints were climbing. A drought had shrunk the rabbit and rodent populations and forced coyotes into more populated areas searching for food and water. Two people were bitten in the suburb of Broomfield and one in Erie, farther to the north; dogs were involved in two of the attacks. Soon after, a woman who let her old dog walk off leash in southeastern Denver was bitten when she tried to stop three coyotes from attacking her pet.

DeLaup confronted an uneasy situation in Denver's Bible Park, where coyotes had gotten so used to people they lounged in the grass

a short distance from humans and just watched. Some followed runners down trails, and a pack of four attacked large dogs and pets in backyards surrounding the park. DeLaup might have sent someone out to trap or shoot the individuals in that family group. Instead, she put hazing to the test, sending trained staff to the park early every morning with air horns and tennis balls. In less than a month, the coyotes withdrew. They remain in the park but hunt only animals such as mice. They stay away from people and pets.

Think of hazing as training, says DeLaup, who has carried this message to more than 9,000 city residents. "We're basically teaching our resident coyotes how to behave."

THE MODEL REFINED

In 2009, at the request of Centennial officials, several Denver area communities began meeting to figure out how to manage the region's burgeoning coyote population nonlethally. DeLaup provided leadership, as did Bonnell, Aurora's lead naturalist. Since then, coyote attacks on people have fallen, and when they do take place officials can usually figure out the cause and address it. However, in Broomfield the solution has not been so simple. There, people continue to be bitten and no one is quite sure why. Last summer in the Anthem neighborhood, three children were bitten. The state shot 11 coyotes before finally killing the apparent culprit.

Finding no signs that anyone had been feeding coyotes, or that pet dogs were involved, city officials brought in three outside experts—Gehrt, Riley, and Julie Young from the research arm of Wildlife Services—to visit Broomfield and solve the mystery. Their report is expected in May, but Riley says it will provide no easy answers because it's impossible to reconstruct at this point exactly what happened.

In a quest to go beyond the anecdotal evidence in hazing's favor, Stewart Breck, who with Young works for the USDA's National Wildlife Research Center, is launching a study this spring to determine which nonlethal means best prevent conflict. Young already found that one technique—shaking an Altoids can filled with coins—worked on most of the captive coyotes at a Logan, Utah, research center. But not all—a sign perhaps that different personalities influence whether hazing works. Coyotes in pens, however, are not the same as wild animals. Which is why Breck's real-world research is so important.

The study will cover Broomfield, Jefferson County, and Aurora,

AS PART OF A STUDY OF COYOTES in the Denver metro area, cameras along trails in Aurora's Horseshoe Park took these ghostly images of coyotes in their hidden world—usually unnoticed by people, sometimes just steps away.

PHOTO ONE : A man walks his German shepherd on a leash around 10 p.m.

PHOTO TWO : About a week later, around the same time of night, a family group of five coyotes investigates the same section of trail. Instinct compels coyotes to visit trails dogs walk on, to sniff the scents left by other animals and to mark their territory.

PHOTO THREE : Unaware of the animal 20 feet behind him, a walker is trailed by a coyote who is escorting the man through his territory.

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After a man reported he saw a coyote early one morning while walking his dog along a drainage canal, Mary Ann Bonnell, lead naturalist for the Denver suburb of Aurora, rushed to the spot with a sign to alert passersby. “It tends to generate phone calls,” she says, “but it also tends to save pets.”

where Bonnell has pursued a nonlethal strategy since 2006. That was the year she watched a woman at a city council meeting cry because a coyote killed her pet dog. “I felt so sad for that person ... [and] I thought, ‘We could do this better.’”

Today, if Bonnell gets a complaint about an aggressive coyote, she puts up a sandwich board in the neighborhood telling people how to haze. She posts on the Web and Facebook. She gives talks in which she calls on people who see a coyote during the day to “release your inner warrior princess.” She orders businesses and housing complexes to clean up their overflowing dumpsters. And she lets people know that it’s not birds or wildlife in general eating the food they leave out; it’s coyotes. (She once discovered a senior center putting out its breakfast leftovers every morning—pancakes, bacon, and sausage.)

Bonnell has set up cameras along trails and in backyards to demonstrate how close at hand coyotes are: A sequence of photos shows a person walking by with a dog and then, shortly after, coyotes following behind. She has gotten a grant to study how people’s feelings about coyotes shape their response to them. And she’s recruited a network of citizen scientists to observe coyote behavior.

One of those volunteers wanted to shoot coyotes not so long ago: Ten minutes after Virginia Engleman let her four Yorkies into her backyard one evening, she heard a lot of barking. She ran out to see Daisy in a coyote’s mouth. There was blood all over the ground. She screamed and the coyote dropped Daisy, but it was too late—her neck was broken. Initially, Engleman wanted revenge. “If you would have talked to me six months after that happened, I would have said, ‘Let’s kill them; let’s get them out of there.’ ... But I started thinking, ‘This is partly my fault too.’”

In January, just as Engleman and other volunteers were beginning their work, Bonnell got some bad news. After more than two years without an attack, a coyote had nipped a woman on the back of the leg in Aurora. It was the second time on record that a coyote had bitten someone in the city. And Bonnell knew why it had happened. An unknown person, nicknamed “the bunny man,” was leaving carrots, peanuts, tangerines, and peaches in the greenbelts, right next to Bonnell’s “Please don’t feed wildlife” signs. Another resident was letting her dog run off leash to play with the coyotes. Yet another resident was allowing coyotes to regularly hang out in her small yard. Because of this, an alpha pair had been approaching dog walkers and following children to school. When Bonnell tried hazing, they didn’t respond. The male let her get within 10 feet.

After the bite, Bonnell called the state to trap the two bold coyotes—she had to. And then, on her day off, she went to identify their corpses.

“It was really important to me to know that it was the right [pair]—I mean, I hate to say that, because it’s not the animals’ fault. ... When citizens ask me, I can say I know we got the right two.”

The next day Bonnell stayed home, sad and angry and in a daze. Finally, her dog jumped in her lap. She broke down and wept.

More than a month later, Bonnell still cries as she remembers what she sees as a terrible failure. But she’s back at work, trying to change coyote—and human—behavior.

“Boundaries were not only blurred, but lost. ... These coyotes ... just didn’t get it that they were wild,” she says. “There have been tracks seen—the remaining coyotes are keeping a human avoidance schedule. ... I think everybody’s learning. ... And now we can move forward.” ■

▲ **FIND TIPS** on keeping coyotes at bay—and a step-by-step guide to hazing—at humansociety.org/coyotes.

THIS SPREAD, TOP: STEPHEN COLLECTOR; BOTTOM ROW: MIKE BONHAM

