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1. ALABAMA STATE SB 3-P CHAMPIONSHIP (this Saturday, 10/7)

Just a reminder that the Alabama 3-P NRA Championship will be held this Saturday, 10/7. the match will begin at 9:00 AM. There will be some sighting available prior to beginning the match if you get there early enough. Around 8:45, sighting will cease in order to get ready for the match to begin at 9:00. Should be there around 8:00 to register and all.

The match will be held at the Magic City Gun Club range in Pinson, AL. For those wanting to do a map-quest, we are located on Narrows Road near the intersection with Jackson Road, approximately 3 miles west of Pinson. Zip Code for Pinson is 35126, but the Zip Code at the range is 35116 (Morris, Al). Contact Don Mckee at [DMckee622@aol.com](mailto:DMckee622@aol.com) for a program and directions.

This will be a 3x40 at 50 yds shooting the A51 target with backers. 40 prone, 40 standing, and 40 kneeling. It is NRA sanctioned, and is the required number of shots to satisfy NRA classification requirements. Please Note: In order to shoot in the Nationals at Camp Perry, you must have a classification, and it is preferred for the SB Camp there.

In addition to adult classes, there will be metals for Juniors, intermediate juniors(15-17), sub-juniors(14 & under), and cub-juniors(12 & under). Junior classes will be according to NRA rule book. The "cub-junior" class is for those 12 and under, whose 12th birthday falls in 2006. A junior may chose to shoot in any higher junior class. Unless directed otherwise shooters will be placed in junior classes according to their age/birthday. After firing begins, shooters may not change classes.

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2. DAISY SHOOTING SPORTS SCHOLARSHIP ANNOUNCED

Last week, I told you that the scholarship would be announced soon. Now it has been officially announced. It is due February 1, 2007. Please note that the essay topic is different from the one indicated last week. The application, requirements and essay topic are below:

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2007 Daisy/4-H Shooting Sports Scholarship Application  
Due February 1, 2007

Last Name \_\_\_\_\_ First Name \_\_\_\_\_ M I \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_ Email address \_\_\_\_\_

Parent/Guardian

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High School

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High School Address

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City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

The qualifications for scholarship consideration include:

1. Minimum of a 3.0 GPA from your high school
2. Three years participation in 4-H shooting sports
3. Recommendation of HS counselor or principal
4. Recommendation of 4-H coach or equivalent who is not a relative
5. Scholarship will be payable to any two-year or four-year accredited Jr. College, College or University
6. Application will require a 250 - 500 word essay.
7. Certified copy of high school transcript.
8. Scholarship money will be available in the second semester of the freshman year and can be used for books, housing, and or college fees.
9. The scholarship of \$500.00 will be awarded at the National 4-H Shooting Sports Invitational each year.

Essay Topic: How does 4-H Shooting Sports fit into my life ambitions?

Send to: Jim Simms, Program Coordinator, National 4-H Shooting Sports Committee,  
RT 1 Box 537 C, Stewart Lane, Mt. Clare, WV 26408 **by February 1, 2007.**

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3. NATIONAL WILDLIFE REFUGE WEEK October 8-14.  
National Wildlife Refuge Week features scores of festivals and special events that help connect people with nature at the country's 545 National Wildlife Refuges. The 11th consecutive National Wildlife Refuge Week Will be celebrated this year October 8-14.

Established in 1903 when President Theodore Roosevelt designated the three-acre Pelican Island in Florida as the nation's first wildlife refuge, the National Wildlife Refuge System, managed by the U.S. Fish and Wildlife Service, today encompasses 545 National Wildlife Refuges and

more than 3,000 waterfowl production areas across more than 97 million acres.

More than 40 million people each year visit National Wildlife Refuges  
For close-to-home wildlife-dependent recreation that is second to none.

"National Wildlife Refuges are America's promise to its citizens that there will always be places where wildlife and wildlife habitats can thrive," said U.S. Fish and Wildlife Service Director H. Dale Hall. "Just as important, the Refuge System offers some of the finest outdoor recreation in the country, from fishing and hunting, to nature photography and nature interpretation.

"One of our most pressing challenges in society today is to teach our children-kids growing up in a digital age-that there is a world of nature beyond the computer and television screen," Hall continued. "National Wildlife Refuges are some of the greatest places to learn the lessons of nature, and National Wildlife Refuge Week is the perfect time to start."

With national wildlife refuges in every state, people in most major metropolitan areas can find unsurpassed opportunities to hunt, fish, photograph and see wildlife within an easy drive of their homes during Refuge Week and throughout the year.

"Our national wildlife refuges are among our nation's most treasured places," said National Wildlife Refuge System Chief Geoffrey L. Haskett. "There is at least one wildlife refuge in every state. In many communities, there is a refuge less than an hour's drive from your front door."

For a more complete listing of Refuge Week events across the country, go to

[http://www.fws.gov/refuges/SpecialEvents/FWS\\_SpecialEvents\\_Search.cfm](http://www.fws.gov/refuges/SpecialEvents/FWS_SpecialEvents_Search.cfm)

The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service manages the 95-million-acre National Wildlife Refuge System, which encompasses 545 national wildlife refuges, thousands of Small wetlands and other special management areas. It also operates 69 National fish hatcheries, 63 fish and wildlife management offices and 81 Ecological services field stations. The agency enforces federal wildlife laws, administers the Endangered Species Act, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps foreign governments with their conservation efforts. It also oversees the Federal Assistance program, which distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to state fish and wildlife agencies.

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#### 4. SPIDER BINGO

You probably have a spider art gallery right on your own street. Why not go out and look for some webs and other spider wonders where you live?

Take along a bingo sheet to remind you what to look for. Take some friends, too, and challenge them to a game. When you find each item, cross it off. Mark off a whole line (across, down, or diagonally) and you've got Spider Bingo! To download the bingo sheet, go to

<http://www.nwf.org/gowild/kzPage.cfm?siteId=3&departmentId=154&articleId=1133> .

Source: National Wildlife Federation

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#### 5. PUMPKIN CARVING

Here are some tips for you to try new pumpkin designs and lots of pumpkin fun!

What you need:

- pumpkin
- pattern
- tape
- knife
- ice cream scoop
- pencil, ballpoint pen, nail, or sewing pattern wheel
- small saw with pointed tip

What you do:

\*\*Cut open the top of a pumpkin and clean out the inside. Scrape the inside surface with an ice cream scoop until smooth.

\*\*Tape a pattern to the side of the pumpkin. Then use a pointed tool to make dots in the pumpkin's skin along all the pattern lines. Or roll along the lines with your pattern wheel. Remove the pattern and save it so you can look at it while you carve.

\*\*To cut lines, use your saw. Push the saw down through the skin. Then move it straight up and down along the lines of dots.

\*\*Be careful! Always ask a grownup for permission and for help when carving pumpkins or lighting candles.

For more carving ideas, along with pumpkin games, patterns, and puzzles, check out these websites:

[www.pumpkin carving101.com](http://www.pumpkin carving101.com) ; [www.thepumpkinfarm.com](http://www.thepumpkinfarm.com) ; or [www.pumpkinmasters.com](http://www.pumpkinmasters.com) .

Source: National Wildlife Federation

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#### 6. WHAT ARE BUGS WORTH?

By Cynthia Berger

Insects perform countless functions that improve our environment and our lives in ways that researchers are only beginning to understand

PICTURE THIS: You're sitting around, having a tailgate party before the big game, when yellow jackets swarm around the apple cider. Or: You're up on a ladder, washing the storm windows, and you find a big wasps' nest under the eaves. How do you feel? Bugged?

Most of us react to insects with annoyance or fear-and the instinct to swat-but according to a couple of enterprising entomologists, deep appreciation would be a more appropriate response. Cornell University's John Losey and Mace Vaughan of the Xerces Society for Invertebrate Conservation recently sat down at their computers, drew up a really big spreadsheet and toted up the cash value of some ecological services that native insects provide right here in the United States.

By ecological services, these scientists mean real work, done for free, by the six-legged creatures we ordinarily feel compelled to swat-work such as pollinating crops (native bees do \$3 billion worth of pollination that would otherwise be assigned to hired honeybees) and pest control (when native insects chow down on alien invaders, farmers avoid \$4.5 billion in crop losses). Then there's the lowly dung beetle-unappetizing in name, but without it, cow patties would just pile up on the range, attracting flies and parasites and preventing new plants from sprouting. Instead, thanks to the dozens of dung beetle species found in North America, bovine waste is swiftly recycled back into the ground, converted to fertilizer that plants can use and farmers don't have to pay for. Chalk up another \$380 million annual service for American ranchers.

All in all, Losey and Vaughan added up a cool \$57 billion in useful services that insects native to the United States perform each year, gratis, no need to send a thank-you note. And the scientists didn't even measure every single beneficial thing that native insects do for us-just a few of the services that were easy to measure because the data were already lying around in the literature. Their study was published earlier this year in the journal *Bioscience*.

If you're reading this magazine, then you may have a particular interest in the main service insects provide for us: They help keep America's population of native wildlife alive and well. Many kinds of animals, from native trout to game birds such as grouse and quail to colorful wood warblers and raptors such as American kestrels and Swainson's hawks, rely on insects as food. "If the insects that these wildlife species need to survive were to suddenly disappear, there's no way you could just go out and feed those animals some other food," says Losey. And here's where the big money comes in: Taken together, the wildlife species that rely on insects represent a \$50 billion slice of America's outdoor recreation industry (including bird-watching and other kinds of wildlife watching, along with fishing and hunting).

The idea that intact, functioning ecosystems provide us with services-fresh air to breathe, clean water to drink-and that we can assign a cash value to these services has been

circulating among biologists for a while. Losey and Vaughan's study, however, may be the first to assign an economic value specifically to wild insects. Losey says he got the idea for the project while investigating the effects of genetically modified corn on monarch butterflies. The corn did suppress pests, but its pollen also blew over onto stands of milkweed near the cornfields, killing the caterpillars of monarch butterflies.

"And when I published this finding, people would say, 'If pest management affects nontarget insects, who cares? They're just a bunch of bugs,'" Losey remembers. "I said, 'Wait a minute, we do need to care!' I wanted to show people that we should care. So I asked myself, 'Can you put a number on how important insects really are?'" As it turns out, he could.

So insects are important to us, just by the nature of the ordinary things they do as they go about their daily lives. But scientists are also studying insects' special talents with the idea of applying these skills in new ways to make our lives better-or safer. Right now, for example, police teams use dogs to sniff for hidden explosives. But some day soon, your local SWAT team might bring out trained wasps to find the TNT.

A team of researchers with the University of Georgia and the U.S. Department of Agriculture has developed a cup-sized device called the "Wasp Hound." It's big enough to hold a few live *Microplitis croceipes*, a kind of tiny parasitic wasp. This species doesn't sting, and it can be trained-much like a dog, using a food reward-in just a few minutes to detect any one of a number of chemical odors, including a chemical used in explosives. When the wasps encounter the target odor, they trip a signal inside the cup so a light flashes. They're cheaper than trained dogs (although they don't live as long) and they're more sensitive than so-called "electronic noses." Preliminary studies show the wasps could also have agricultural and medical applications-they can be trained to detect the smell of toxic fungi that infect certain crops, and also the chemical odors associated with certain human cancers. So some day, when the doctor tells you to open wide, that may not be a tongue depressor he is inserting in your mouth.

Other researchers are looking into ways we can learn from insects' behavior. "We humans focus on centralized control, with a boss and a hierarchy of decision-making," says University of Illinois at Urbana-Champaign entomologist Gene Robinson. He is part of a team that, with support from the National Science Foundation, is studying social insects such as ants and honeybees as inspiration for new approaches to disaster response. "When a honeybee colony faces a disturbance-say, a honey badger in Africa attacks the hive-there is no centralized control," Robinson notes. The queen doesn't lead the response. She doesn't send out scouts, have them report back with information about the situation, and then weigh her options. "Yet chaos doesn't result. Decisions are made. The colony defends itself effectively, in proportion to the magnitude of the disturbance."

If that all seems rather abstract, here's something easier to picture: Scientists around the world have been trying for decades to figure out how insects fly. The challenge is that insects seem to defy the laws of physics. Based on what we know about how flight works, it seems almost impossible that insects get airborne. But if we could figure it out,

scientists believe we might develop tiny unmanned aircraft, or micro air vehicles (MAVs). Possible applications range from wartime surveillance to checking for victims in burning buildings to search-and-rescue after disasters such as hurricanes.

University of California-Berkeley biologist Stacey Combes didn't care about MAVs-she was just curious about how fast different insects could fly. Trouble is, stick bugs in a wind tunnel and most species opt out. Instead of flying their fastest, they give up and cling to the sides. Then Combes, a postdoctoral research fellow, found the brightly colored orchid bees of the New World tropics. Just open a jar of cinnamon oil and they come flying. Combes set up a portable wind tunnel in the forest, kind of like a giant bee treadmill, and gave some wild bees a workout. She noticed that orchid bees, which have unusually large hind legs, use them in a funky way. She expected they would tuck their big legs up at high speeds, to reduce drag, but instead the bees let their legs dangle. That did produce drag, but it also tilted the bees' bodies nose-down, putting their wings at the angle they needed to fly really fast.

"This is basic research," Combes says. "I'm not building any miniature aircraft. But it's always surprising what can come out of basic research. In studying insect flight, people usually look at how the wings work-that's what they've been doing for years and years. They never really looked at the legs." Who knows? Someday a successful MAV may have insectlike wings and legs. One more field where scientists are turning to insects for inspiration is therapeutic drugs. You've probably heard of biological prospecting: looking for useful chemical compounds in rain forest plants or coral reef organisms. Well, there are four million species of insects out there, and they use all kinds of biologically active substances. Mosquitoes make proteins that keep blood from clotting. Fireflies make proteins that glow in the dark. Termite soldiers squirt a compound with antimicrobial properties.

So before you swat that mosquito, remember that someday, after a tiny wasp makes your diagnosis, some other insect may cure your ailment. And it won't even expect you to say thank you.

While Pennsylvania writer Cynthia Berger was studying for her Master's degree in insect behavioral ecology, her mother's friends would send her bulging envelopes stuffed with bugs "just because they thought I'd like to have them," she says.

### The Latest Buzz on Bugs

Scientists continue to uncover surprising new facts about insects' amazing abilities and behavior. Here are three of the latest discoveries:

- British scientists caused a stir this year when they announced in a paper that they had discovered the first example of non-human teaching, and the teachers and pupils were ... ants. The scientists witnessed *Temnothorax albipennis* ants leading others to a food supply. Because the leaders slowed down to offer direction, the study's authors claimed that their behavior fits the animal behaviorist definition of teaching: modifying their actions, at cost to themselves, in order to help other individuals to learn more quickly.

- What looks to us like a plague of locusts is really just a matter of safety in numbers. Researchers working in Utah and Colorado recently confirmed that by attaching tiny transmitters to the backs of Mormon crickets, which travel in groups of millions, and separating a number of them from the pack. More than half of the tagged stragglers were eaten by predators, compared to none of the crickets that remained with the pack-proof that when you're a cricket, it pays to hang with the crowd.
- Got a lazy housemate? Maybe you could try doing as wasps do. A Washington researcher found that when worker *Polybia occidentalis* wasps notice their nest mates hanging around the nest instead of foraging for food, they bite the slackers. Sometimes one nibble isn't enough; some insects were bitten several times over many hours before they got the message and left the nest.

#### Nature Watch: A Bee's-Eye View

Ever wonder how hungry bees choose a flower for feeding? It turns out that they are following invisible (to us) clues. Bees have faceted, compound eyes that are sensitive to ultraviolet (UV) rays-rays that are normally filtered out by the lens in the human eye. And many flowers have UV patterns that work like billboards to attract passing bees. One of the most dramatic examples of UV coloration in flowers is this silverweed, *Potentilla anserina*. The plant's blooms look uniformly yellow to the human eye but appear to bees as distinct bull's-eyes. The center of the target pattern is where pollinators find nectar and pick up the pollen that helps the flowers to reproduce. Norwegian nature photographer Bjørn Rørslett uses UV-sensitive equipment to photograph flowers as bees perceive them.

#### Missing: Bees and Flowers

Which came first: bees or the flowers they pollinate? Or, more to the point, which will disappear first? A new study by scientists from the Netherlands and Great Britain finds that the diversity of wild bees and the flowers they feed upon and pollinate has dropped significantly in both countries over the last 25 years.

In Britain, for example, a drop in bee diversity in the last few decades has been accompanied by declines in 70 percent of the wildflowers that are pollinated by insects. Plants that are either wind-pollinated or self-pollinated, on the other hand, have held steady. The researchers say that while the populations of some other pollinators-hoverflies, for one-have actually been increasing, this doesn't mean that those other insects can make up for the missing bees. The bees tend to be specialists: They stick to a limited range of flowers that generalists such as hoverflies might ignore.

The worldwide economic value of the pollination provided by wild bees is estimated to be more than \$20 billion annually, according to researchers (see "What Are Bugs Worth?"), so a decline in bee diversity could have devastating economic and environmental consequences. -Hannah Schardt

Source: National Wildlife Federation

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## 7. CITY SLICKERS (URBAN COYOTES)

By Doug Stewart

Coyotes are thriving in virtually every urban area in the country; biologists who study the predators say they pose no threat to people-as long as we let them stay wild. LAST MARCH, a full-grown coyote made headlines when it led a posse of heavy-breathing police officers, city officials and reporters on a zigzagging chase through New York City's Central Park, where it was finally subdued with a tranquilizer dart.

To most of the public who watched video footage of the chase the next day (thanks to the five news helicopters that had followed along), the saga of the coyote in midtown Manhattan seemed utterly bizarre. The coyote, however, was likely a native New Yorker, quite possibly even a Bronx resident. It just picked the wrong time and place to show itself.

From coast to coast, coyotes have become a fact of life in urban America. They howl in downtown Chicago, trot across Wilshire Boulevard in Beverly Hills and dig dens in and around Tucson, St. Louis, Boston, Detroit and Washington, D.C. "Coyotes that have been born and raised in urban areas prefer urban areas," says wildlife ecologist Stan Gehrt of Ohio State University, who has radio-collared nearly 200 coyotes in the Chicago area over the past six years. "It's not a matter of coyotes being pushed out of better habitat and into a city. For the majority of these animals, they're home. They're where they want to be."

While these four-footed neighbors are bound to make some city dwellers nervous-coyotes are carnivorous, after all-Gehrt and other wildlife experts say there's no reason we should feel threatened. Most coyotes avoid contact with people so thoroughly that we're lucky if we see one at all; learning to be wary is part of a pup's upbringing. The key to coexisting is to not undo what coyotes have learned so well.

Few wildlife success stories are as dramatic as that of *Canis latrans*. "If you go back 200 years, Lewis and Clark didn't stumble on coyotes until they got to what is now the Dakotas," says Matthew Gompper, a wildlife biologist at the University of Missouri. Coyotes were originally grassland animals, he says. The disappearance of huge swaths of forest helped them expand their range, as did the eradication of wolves, their chief predators. Expanding beyond the rural West over the past century-despite efforts early on by farmers and ranchers, with federal help, to exterminate them-coyotes now reside in every state except Hawaii. Their infiltration into cities and suburbs in recent decades, Gompper says, is simply a side effect of their overall range expansion. "At this point, all cities have them. Urban coyotes are probably much more common than people realize." No one knows how many coyotes live in urban areas. Their total U.S. population could be anywhere from one to ten million. The sense that their numbers are on the rise is based in part on increases in phone calls to animal-control officers about coyote sightings. Some of this increase no doubt stems from a heightened awareness of coyotes and what they look like, thanks to sometimes sensationalistic press coverage.

Most coyotes manage to operate unobserved, mainly due to their preference for the wee hours between midnight and dawn. They may visit your backyard regularly, but not while you're awake. Urbanites who do cross paths with coyotes can easily mistake them for unleashed dogs. With their large, upright ears and bushy tails, they look a bit like small German shepherds but with lighter frames and narrow, foxlike muzzles. In the western United States, adults typically weigh between 20 and 30 pounds, though their heavy coats can make them appear larger. Eastern coyotes average 10 pounds more; some reach 50 or 60 pounds. Their larger size may be due to crossbreeding with wolves sometime in the past.

A modern city might at first seem like marginal habitat for a coyote. Not so, says Paul Krausman, a University of Arizona wildlife biologist who is studying two groups of coyotes living in downtown Tucson. "Coyotes are one of the most adaptable species on the face of the Earth," he says. "In urban areas, they've got everything they need. There are no wolves or mountain lions, so they're at the top of the heap. People are throwing out garbage for them to eat, and they're watering their lawns, which attracts prey species. It's a perfect setup."

In dietary matters, coyotes are opportunists, which is one reason they're able to make themselves at home while surrounded by people, cars, buildings and asphalt. Strictly speaking, they're more omnivores than carnivores. Their diet consists of mammals like deer (fawns in spring, roadkill year-round), raccoons, rabbits, mice and, when the opportunity presents itself, cats and small dogs, but also birds, insects, berries and other fruit. An urban coyote's natural diet is often supplemented by anthropogenic food items like pet food and trash.

How this latter, unintended smorgasbord is affecting coyotes is among the questions that Paul Curtis, a wildlife specialist at Cornell University, hopes to answer. Curtis is involved in a five-year investigation, begun in 2005, of urban and suburban coyotes in New York state. While most of his data are preliminary, Curtis can already confirm the coyote's legendary wiliness: Trapping study animals has not been easy. He and his colleagues mask their own scent by dyeing and waxing their traps and handling them with special gloves. They even avoid kneeling on the ground. "We go through all this effort, and several times last month we've had coyotes come in, know exactly where the trap was, dig all around it, and urinate on it, as though they're saying, 'Ha! You didn't get me.'"

The most extensive study of urban coyotes is in Chicago, where Gehrt has been monitoring up to 40 radio-collared animals at a time. He reports a number of surprises. "People used to think large carnivores needed big tracts of undeveloped habitat to be successful," Gehrt says, "but we found that's not true in Chicago." Those living in packs and defending a territory, he says, use a range of between two and eight square miles. "It can include some of the most urbanized land you can imagine." One group he's monitoring lives at the corner of two major interstate highways, with the country's second-largest indoor mall alongside. Not surprisingly, collisions with vehicles represent a Chicago coyote's number-one mortality risk, accounting for 70 percent of the deaths that Gehrt has tabulated. Still, the animals aren't blundering through the city like

disoriented moose. “Coyotes definitely learn how to cross roads,” he says. “They have to. Some of these guys cross hundreds of roads every night.”

The most impressive example of coyotes making do with scarce urban real estate, Gehrt says, was a pair of animals that dug their den under a single line of bushes between a municipal swimming pool and a day care center. “They were able to raise their young a few yards from where children were playing, and hardly anyone knew they were there,” he says. Unless he’s aware that a coyote has become a nuisance, Gehrt avoids publicizing den sites.

Indeed, more than a few city residents are uncomfortable with the idea of coyotes in their midst. Once an urban coyote is trapped, some people believe it should be removed to a nature preserve somewhere, not released into the very neighborhood where it was found. Even if a coyote were to be relocated, it might be capable, like Lassie, of coming back home. (A coyote thinks nothing of trotting 20 miles in a night.) And if it didn’t, another coyote might well take its place. “No matter what anyone might try to do to remove coyotes from cities and suburbs,” says Curtis, “they’re going to be there.”

Jim deVos is research chief for the Arizona Game and Fish Department in Phoenix, where coyotes are well-entrenched residents. The urban public, he’s noticed, is divided in its views about coyotes. “We’ve held neighborhood meetings where half the group sits on one side of the room and half on the other,” deVos says. “One side wants them gone. They say, ‘I’m scared to death of them. They’re going to eat my children.’ The other side says, ‘Boy, that’s cool! I got to see one.’”

Coyote attacks on humans are extremely rare, but they do happen. In southern California, over the past 25 years especially, some coyotes have become brazen, prowling in the daytime and even openly following people walking small dogs. The only known fatality was a young girl attacked by a coyote in suburban Glendale, California, in 1981. Biologists believe that dangerous coyotes are those that have become habituated to humans. Unsecured trash cans, overfilled bird feeders and outdoor pet bowls have been part of the problem. In many cases, however—including that of the Glendale animal—they are fed intentionally as part of a homeowner’s misguided nature-watching strategy.

Gehrt knows that a few Chicagoans have begun feeding the local coyotes, just as some urban Californians have for decades. “When I tell them they need to stop, they get upset,” he says. “Not just a little bit. We’re talking irate. It will be interesting to see if we can change people’s behavior before people change the coyotes’ behavior.”

### Be a Good Neighbor

Urban coyotes are here to stay, so we need to learn how to coexist with them. The predators can make perfectly good neighbors as long as they don’t lose their natural fear of us. Some tips:

- Don’t feed coyotes! Avoid overflowing bird feeders and open compost bins.

- Obey leash laws. Small dogs on the loose are attractive prey for coyotes, especially at night. Cats? Keep them inside, along with pet food bowls. In dry climates, even a water bowl can draw coyotes.
- Keep all garbage containers closed and inaccessible. Adding ammonia or pepper spray to trash can discourage rummaging by coyotes and other wildlife.
- Don't invite coyotes to build dens next to (or under) your home: Seal crawl spaces, close sheds and thin brushy areas.
- Even if you love seeing coyotes, don't let them know it. If a coyote visits your yard, wave your arms, shout, spray it with a hose. Be a threat!

### Coyotes to the Rescue?

In urban areas throughout the country, populations of Canada geese, benefitting from food and habitat provided by people, have grown rapidly-along with the smell and mess the animals leave behind. In the Chicago area, for example, Christmas Bird Counts conducted between 1972 and 1979 tallied about 300 geese a year. By 1981, the number had jumped to 2,000 and was up to 9,000 geese by 1993.

Recent research, however, suggests that another hearty city survivor, the coyote, is beginning to control the goose population boom. As part of the nation's largest study of urban coyotes to date, biologist Stan Gerht of Ohio State University observed that as the predator's numbers increased in and around Chicago, the g