

The Cat Conundrum

Tens of millions of free-roaming felines take a huge toll on wildlife; what to do about them has spawned battles from coast to coast

By *John Carey*

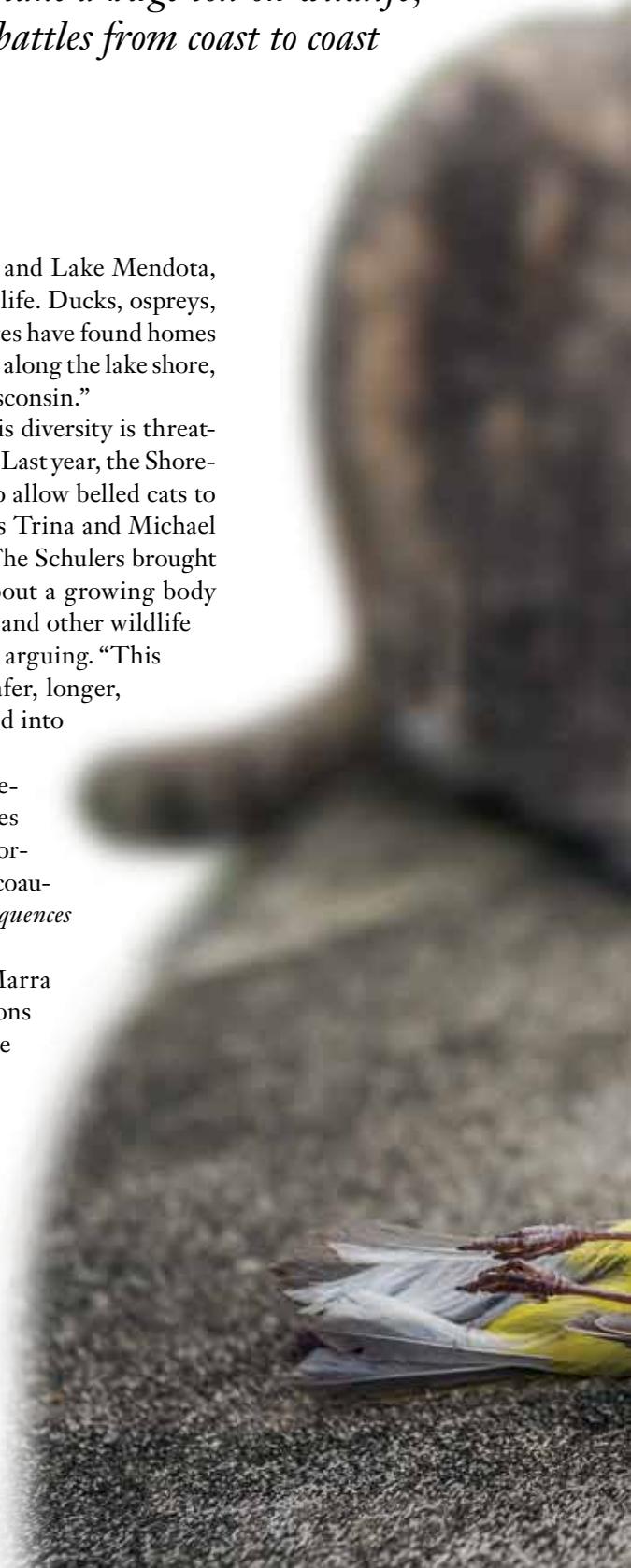
Tucked between the city of Madison, Wisconsin, and Lake Mendota, the village of Shorewood Hills is a haven for wildlife. Ducks, ospreys, eagles, scores of migratory birds and other creatures have found homes in its nine parks and leafy backyards, on the golf course and along the lake shore, earning the village official designation as a “Bird City Wisconsin.”

But now some residents and researchers worry that this diversity is threatened by a proficient nonnative predator—the domestic cat. Last year, the Shorewood Hills board of trustees revised village ordinances to allow belted cats to roam free, a move that prompted local environmentalists Trina and Michael Schuler to encourage a ban on all free-ranging pet cats. The Schulers brought in scientists and conservationists to educate residents about a growing body of research showing the significant toll cats take on birds and other wildlife (even when they wear bells). Months later, the village is still arguing. “This is not an anti-cat thing at all, because indoor cats live safer, longer, happier lives,” says Trina Schuler. “But it quickly escalated into a red hot topic.”

Red hot topic, indeed. The cat skirmish in affluent Shorewood Hills is just one of “an enormous number of battles happening around the country,” from Long Island to Anchorage, from Chicago to Houston, says biologist Peter Marra, coauthor of the recent book *Cat Wars: The Devastating Consequences of a Cuddly Killer*.

Head of the Smithsonian Migratory Bird Center, Marra and other scientists, along with conservation organizations such as the American Bird Conservancy, warn that entire populations of bird and other wildlife species are declining or even being pushed toward extinction by domestic cats. The culprits are not just feral cats and tame strays—both frequently found in colonies provisioned by people—but also household pets allowed to roam

Caught in the act, a cat toys with a hooded warbler it just killed in a Florida backyard. Nationwide, some scientists estimate that outdoor cats—even well-fed pets—kill 1.3 billion to 4 billion birds annually.







MURAT AN (SHUTTERSTOCK)

Fed by people, community cats gather to dine on kibble. Even when such animals are trapped and sterilized, cat colonies may grow if unwanted pets are dumped and because one female can have up to 18 kittens a year.

free. Though these felines are simply following natural instincts, their toll on wildlife is estimated at more than one billion birds and billions more small animals a year. The data are so convincing in Australia and New Zealand that both countries are trying to eradicate all of their feral cats—millions of them—by 2050 to protect declining native species. Allowing cats outdoors “is like letting semis drive in the bike lanes. It’s

a killer,” says conservationist and urban nature educator Paul Noeldner, one of the experts arguing for cat control in Shorewood Hills (and owner of four indoor cats).

Yet several powerful cat advocacy groups, including Alley Cat Allies and Best Friends Animal Society, bitterly oppose any “lethal control” of cats or even confining the predators inside. If outdoor cats are of concern, they say, the only

acceptable approach is trapping, neutering and releasing the animals outdoors. But that strategy, known as TNR, usually fails, scientists say, because it is fiendishly difficult to trap and spay or neuter enough cats to stay ahead of high feline fecundity. (A single female cat can have 12 to 18 kittens a year.) In addition, cat colonies often become dumping grounds for unwanted pets. For those reasons, populations do not necessarily decline, and may even increase, in a TNR colony.

Though some cat supporters acknowledge that outdoor felines can take a toll on wildlife, even they insist that the cats have a right to be outside. “The whole notion that certain species are to be honored and celebrated based on the number of generations their ancestors have been in a given location, while others are to be hunted and killed based on the same criteria, is ethically questionable at best and poor science to boot,” argues Becky Robinson, president and founder of Alley Cat Allies. “We cannot return the vast majority of ecosystems to a pristine state occupied only by ‘native species,’ nor anything close.”

Scope of the hunt

What does science say about the toll taken by feline tooth and claw? As far back as 1916, ornithologist Edward Howe Forbush wrote that “the widespread dissemination of cats ... and the destruction of birds by them is a much more important matter than most people suspect.”

Yet the problem did not flare into the public consciousness until about 25 years ago, with the publication of a pioneering study by Stanley Temple, professor emeritus of conservation and wildlife ecology at the University of Wisconsin–Madison. By radio-tracking cats and examining stomach contents and feces, Temple studied the hunting behavior and diet of free-ranging cats, then estimated how many of the animals lived in rural Wisconsin. His results showed that, yes, cats do kill birds—on average 5.6 per cat per year. Extrapolating to rural areas statewide, he estimated that 1.4 million free-ranging country cats killed as many as 7.8 million birds each year. Temple’s research earned him angry phone calls, hate mail (including death threats) and other attacks that continue today.

Temple’s numbers were large, but not so large to be seen as a crisis. Millions of birds die flying into buildings, and birds and other animals killed by cats also face habitat loss and other

major threats. Moreover, conservationists had assumed the outdoor-cat problem was under control thanks to local enforcement, “so the scientific community largely turned its back on the issue,” says Chris Lepczyk, an ecologist at the Auburn University School of Forestry and Wildlife Sciences who has studied the links between cats, wildlife and people for more than 15 years.

That sanguine view changed after Marra—citing population declines in 35 percent of North American bird species—decided in 2012 to look in greater detail at potential causes. With colleagues Scott Loss and Tom Will, “we pulled together information on mortality from cars, buildings, towers, cats and other sources,” Marra says. “It was amazing how much data there were.” The scientists found studies from all across North America.

Those data painted a grim picture. The pet industry pegged the number of feline pets in the United States at 80 to 90 million. The scientists found evidence showing that 60 to 70 percent of them go outside and that another 30 to 80 million unowned cats also roam the outdoors. Using the low end of those numbers to be conservative, the team then relied on studies such as Temple’s to calculate the total toll. Their number, published in the scientific journal *Nature Communications* in 2013, was huge: 1.3 billion to 4 billion birds killed a year, “three times higher than any previous estimates,” says Marra, plus billions more creatures such as mice and lizards.

The study made headlines in the *New York Times* and elsewhere—and the resulting outcry was passionate. Alley Cat Allies’ Robinson went to the Smithsonian Institution with a petition signed by more than 55,000 people denouncing the study and Marra himself. Among the objections: There’s no evidence that outdoor cats, many of them fed by people, would kill so many birds and other animals or that the mortality numbers are large enough to cause population declines of many species.

The cat and the woodrat

Wrong on both counts, newer data suggest. Consider Florida’s Key Largo woodrat, a furry cousin of the white-footed mouse that builds big nests of sticks and lives only in tropical-hammock habitat on the northern part of that island. To learn more about the perils cats pose to the endangered rodent, North Carolina State

University wildlife ecologist Michael Cove set up motion-triggered cameras at multiple locations in Key Largo's Crocodile Lake National Wildlife Refuge. Much to Cove's surprise, given the long odds for even capturing a cat on film, his cameras snapped pictures of several cats in the act of carrying the rare rodents in their mouths.

feral cats, which have to hunt for their own food.

As for the impact on wildlife populations, ecologist Tim Doherty and other Australian researchers reported in 2016 in the *Proceedings of the National Academy of Sciences* that cats have played a role in the extinction of 63 bird, mammal and reptile species worldwide. Cat predation



CATIO SPACES

Orange tabby Serena explores one of four “catios” her owner, Cynthia Chomos, installed outside their home in Seattle. Catios allow pets to enjoy the outdoors safely while protecting vulnerable birds and other wildlife.

Cove was able to identify at least four different individual cats in the photos and discovered that three of them were members of large colonies, including one in a gated community just outside the refuge. Because community members fed the felines, cats were not catching rats because they were hungry. Indeed, hair analyses confirmed the predators dined exclusively on pet food.

“It was scary,” says Cove. “We have photographic evidence that these ‘subsidized’ cats still kill wildlife, even if they don’t consume it.” In fact, colonies of outdoor cats maintained and fed by people are particularly harmful to wildlife, says Marra, because the predators occur in densities far higher than would be possible for truly

or diseases spread by cats are threatening 430 additional species. (Some researchers suspect, for example, that toxoplasmosis from cat feces flushes into coastal areas and poses a hazard to sea otters, monk seals and other marine animals.) “We found that cats have contributed to a massive 26 percent of [modern-day] bird, mammal and reptile extinctions—a figure that had never been quantified before for the entire globe,” Doherty reports.

Hope on the horizon?

Scientists admit it is legitimate to question the precise number of cats that roam outdoors, along with the magnitude of the resulting wildlife toll,

because current estimates are extrapolations from small-scale studies. That's why, in a sign of potential progress, scientists, veterinarians and cat rescue groups have launched the Total Cat Count project. The idea is to develop a methodology to accurately measure the total number of both indoor and outdoor cats in a defined location—a key first step to truly understanding the scope of the cat predation problem.

There is hope for more progress. Researchers and a handful of cat advocates actually agree on a few things: that cats can take a toll on birds and

other wildlife; that it's safer for cats to be indoors or in outdoor enclosures; that pet owners need to be encouraged—or even required—to be more responsible; and that cats, at least in some cases, need to be physically separated from threatened or endangered wildlife populations.

In Hawai'i, for example, the National Park Service joined forces with several partners to construct a 5-mile-long cat-proof fence in Hawai'i Volcanoes National Park. Completed last fall, the 6-foot-high fence (with a curved top that prevents predators from climbing over) protects more than 600 acres of nesting habitat for the endangered Hawaiian petrel. Before the fence—the state's fifth “conservation fence”—feral cats were taking a heavy toll on adult and, especially, hatchling petrels, both highly vulnerable to predation because they are confined to the ground during the species' five-month-long breeding season.

Scientists as cat owners

Far from being cat haters, many scientists who study the feline-predation problem are, or have been, doting cat owners themselves. Temple even adopted one of his radio-collared research subjects and built a cat enclosure to allow his pet to safely enjoy the outdoors.

Such enclosures, dubbed cat patios or “catios,” are becoming popular. Cynthia Chomos, a cat-enclosure designer in Seattle, Washington, and founder of the company Catio Spaces, says she enjoys “witnessing my furry, four-legged clients safely experience the enrichment of nature while protecting birds and other wildlife.”

Scientists hope that over time cultural norms around cats will slowly change so that the animals eventually are viewed and regulated more like dogs, with license laws and restrictions on roaming free. Already, a handful of municipalities—including Houston, Texas, and Vancouver, Washington—do require licenses for cats (at least on paper). And just across Lake Mendota from Wisconsin's Shorewood Hills, the village of Maple Bluff calls for cat identification tags and prohibits the pets from leaving an owner's property unless they are on leashes. “It may take a generation or two, but this is a problem we can solve,” Lepczyk says. 



GEORGE H. HARRISON

Keep cats inside—and content

One obvious way to save millions of birds killed annually by free-ranging cats would be for pet owners to keep their felines inside. The typical response to that suggestion? “My cat could never be happy inside.” Not so, counters nature writer George H. Harrison. “In fact, indoor cats are healthier and longer-lived,” he says, “and a cat's interest in birds can be satisfied by setting up a bird-friendly area outside your pet's favorite window.”

Author of *Birdwatching for Cats*, Harrison also once served as managing editor of *National Wildlife* magazine. While in that position, in 1973 he helped launch the National Wildlife Federation's backyard habitat initiative, now called the Garden for Wildlife™ program. Among the program's public education goals is encouraging pet owners to keep cats indoors. “I talk about the negative impact of free-roaming cats on wildlife in every Garden for Wildlife talk I give,” says NWF Naturalist David Mizejewski. “The science is clear, and outdoor cats are a significant conservation problem.” For more about wildlife gardening, visit www.nwf.org/garden.

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