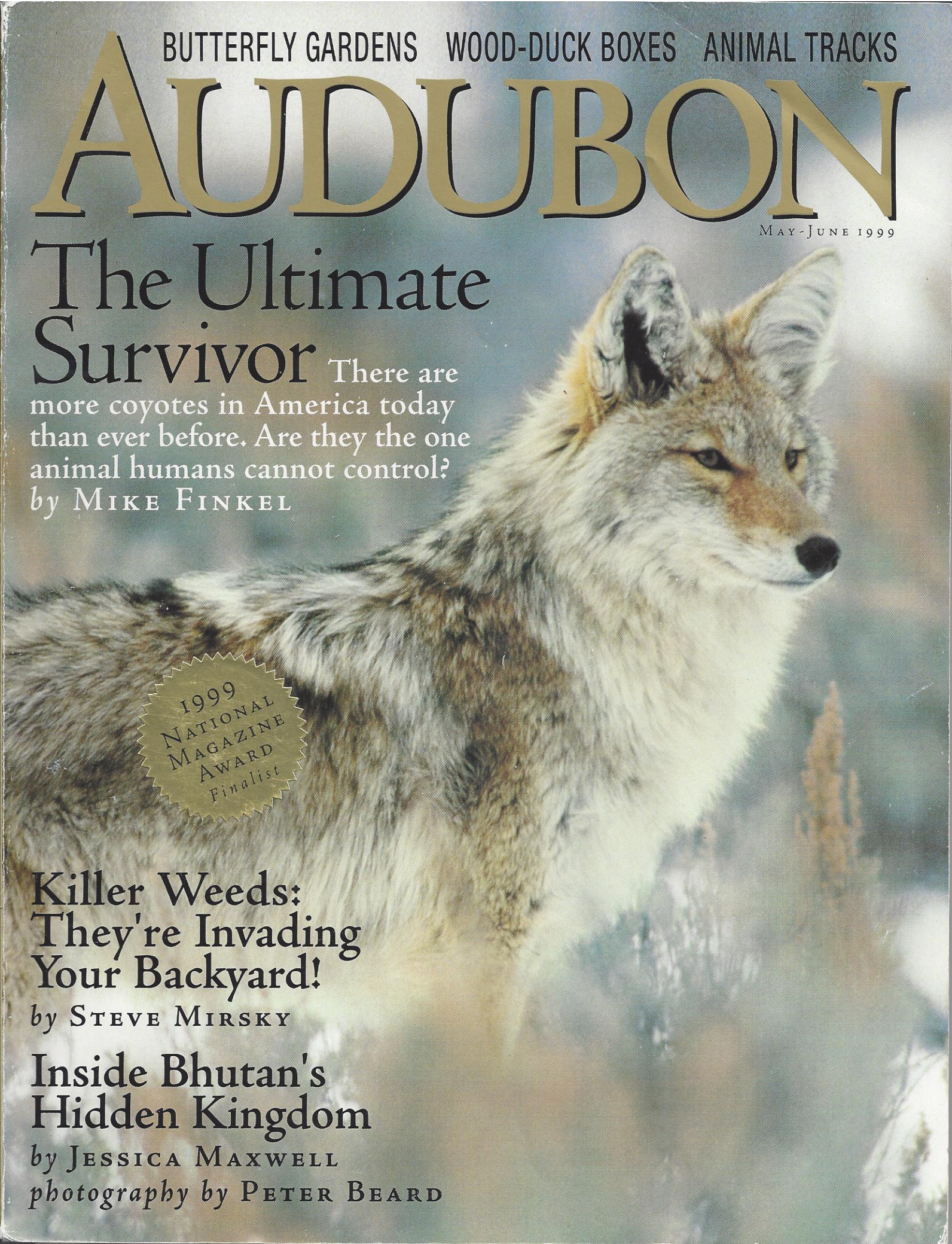
BUTTERFLY GARDENS WOOD-DUCK BOXES ANIMAL TRACKS

AUDUBON

MAY-JUNE 1999



The Ultimate Survivor

There are more coyotes in America today than ever before. Are they the one animal humans cannot control?

by MIKE FINKEL

1999 NATIONAL MAGAZINE AWARD *Finalist*

Killer Weeds: They're Invading Your Backyard!

by STEVE MIRSKY

Inside Bhutan's Hidden Kingdom

by JESSICA MAXWELL

photography by PETER BEARD

On the Track of Something Good

Sue Morse has turned a private passion for wildlife into an effective conservation tool—while teaching others to do the same.

BY DAVID DOBBS

A HALF-HOUR into my first Keeping Track class, Sue Morse maneuvered me into smelling a tree stump. Knees and hands in the damp snow, I snuffled for some olfactory hint regarding what had made the tracks we'd been pondering. I suspected that Morse already knew. But the day-old paw prints dotting the snow were too vague for us neophytes to decipher, and Morse forbade us to declare an ID until we found a sign that was diagnostic.

"That's rule one," she said. "Rule two is, If in doubt, follow it out. Follow the tracks back to a place where the animal did something distinctive." So we had followed the tracks to this stump, where the animal appeared to have stopped as if to mark it.

"Smells like cat pee," I said.

"Good job," she said. "That's Mystery. A bobcat."

"Mystery?" I said, looking up. "You know the actual cat?"

"Sure," she said, smiling. "He lives around here. I recognized the prints."

Thus did the smell of bobcat urine introduce me to Morse's Socratic teaching method. It was the most memorable lesson I've yet had about habitat health.

Morse explained that this northwestern flank of Vermont's Green Mountains contains a bobcat-friendly mix of forests, wetlands, and rock cliffs. Yet she knew this definitively only because she had walked these woods regularly for 23 years, recording wildlife sign and compiling the data into a record of how animals use the terrain. "Only by doing this sort of homework—literally keeping track of wildlife use—can we know a given habitat's true value," she said. "And only by knowing its value can we work effectively to conserve it.

"A case in point is this study area. Twenty years ago, if we had discussed as a town what to do with these lands, I would have said, 'Whoa! We can't build a Wal-Mart here! These woods are too pretty! I've seen moose here! This is special!' Today I could say the area functions as core habitat for bear, bobcat, fisher, mink, moose, and otter, and it's essential to the health of those species and everything they draw on. It's a big difference."

For the rest of that damp winter day, Morse—looking quite the fit naturalist in a red-and-black hunting shirt, ranger-green slacks, and slightly

Sue Morse teaches citizens to see how animals use the land—in Vermont and nationwide.

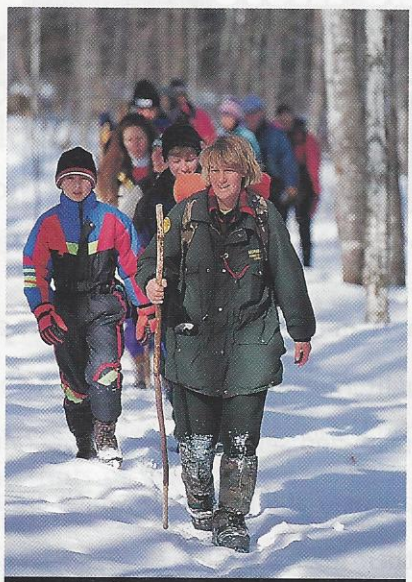
ALAN JAKUBEK FOR *AUDUBON*

Since 1995 *more than 1,000 people have learned how to keep track of wildlife through Morse's program.*

rumpled blond hair—led us over ridges and down ravines, giving us a taste of the sort of understanding she spoke about. She showed us the fat, five-toed tracks of fishers; otter slides across a beaver pond; claw marks where bears had climbed beeches and tooth marks where they'd bitten birch. She coaxed most of the sightings and identifications out of us with leading questions and gentle ribbing. Then she gave a brief life history of the animal and its role in the ecosystem. By day's end, we were wet and weary but ready for round two.

The mechanics of Keeping Track are simple: Gather 15 or 20 citizens interested in wildlife; teach them in six long days of fieldwork to identify sign left by wide-ranging "umbrella" species; and help them set up study areas they can check for sign four times a year. The indicator species vary by region, but like the bears, bobcats, and other creatures we were looking for, they are generally wide-ranging carnivores. By cataloguing when and how these animals use the land over the years, the citizen-scientists can help their town and its residents plan growth and manage land to prevent habitat fragmentation. Some groups also use their research to steer their own efforts. After the trails committee of East Montpelier, Vermont, took a Keeping Track course, the group revised several planned trails to avoid beaver and bear habitat. Morse has now given such tools to hundreds of people in dozens of organizations in the Northeast, New Mexico, Arizona, and California, from neighborhood groups to regional park commissions.

Citizen wildlife surveys aren't new, but most have focused on birds. Keeping Track also differs in that those who collect the information are the ones who use it—a brilliant way to address a global problem locally. By engaging people in monitoring their local wildlife, Morse turns the notoriously abstract issues of biodiversity and habitat fragmentation into an earthy, firsthand relationship with wild animals on their home turf.



Morse leads a group of Vermonters through a Green Mountain forest.

SUSAN CAROL MORSE, a Pennsylvania native and a fourth-generation forester, discovered the allure of landscape and wildlife in local woods and on her grandfather's 2,000-acre farm. Her grandfather, she says, "gave me much more appreciation and interest in the outdoors than I realized at the time."

It's a couple of days after my first class, and Morse is heating a lunch of soup and spinach pie. Her cabin in the Green Mountain foothills is filled with comfortable chairs, wildlife pelts and photos, piles of maps and field notebooks, and three curious cats. Thousands of volumes on literature, science, philosophy, and natural history frame her view of the mountains she studies.

Like many who dedicate themselves to nature or to literature, Morse struggled for years to find work that felt like hers. She spent much of her 20s and 30s cobbling together a rural freelancer's mix around wildlife and trees. She cut firewood, planted, landscaped, built stone walls, led wilderness trips. She worried about money. At times, she says, she floundered.

The freelancing gigs got better during the 1980s—more interesting landscaping jobs, wildlife consulting for landowners, stints teaching ecology at local colleges and universities. Yet the work still didn't feel like hers. In the early 1990s she started training people to identify wildlife sign. Her students' enthusiastic responses told her she was onto something. But she lacked the funding and structure to move the classes beyond a way of exciting individuals. Watching Burlington, Vermont, sprawl toward the Green Mountains, she wanted something to help people conserve the habitat she was teaching them to read.

One day, an after-class conversation with a student, lawyer John Collins, convinced her that a nonprofit organization might help her create such a program. In 1995 she, Collins, and some others founded Keeping Track. Community groups and the regional press jumped at her invitation to "get to know your neighbors," and the program has since taken off with almost unsettling speed. Starting with a half-dozen groups the first year, it has roughly doubled annually, so that in 1998 Morse trained more than 500 people. An executive director, office manager, and part-time naturalist now tend to administrative and other tasks, while Morse leads groups through the woods five, six, even seven days a week.

"It helps to have the novelty of this woodswoman out there teaching this stuff," acknowledges Morse as we sit drinking some very strong coffee after lunch. "But it's the program that really excites people. You see it when they're introduced to it at the slide shows, you see it in the first class, and you really see it as their skills grow and they meld into a group.

"That is what gratifies me the most," she says, brushing back a lock of hair. "The way this draws together a constituency that didn't quite exist before—people who care for wildlife in different ways but don't necessarily feel a kinship with each other. They go out there, they solve these puzzles together, and they start to coalesce. People find themselves talking to neighbors they never knew. I love seeing that happen. And it makes a really powerful constituency: this diverse group presenting information that's

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been collected in a systematic way."

I'd seen a bit of that on the day of our first class. Our group included an environmental activist, a retired graphic designer who loved to watch birds, a motorcycle mechanic, and a tall, laconic trapper with the sort of old Vermont accent that's growing depressingly scarce. Yet as we worked together to solve the puzzles posed by Morse's playful interrogation, our differences faded, subtly but noticeably.

Harley Shaw, a retired state biologist who has worked with Morse on citizen track-counts in Arizona, says this "sociological" effect, as he calls it, is enough to justify Morse's endeavor: "You get out there doing this stuff; people with radically different viewpoints discover they actually like each other. That they collect valuable information sometimes seems a bonus."

Shaw is one of several scientists that Keeping Track recently hired to review the program's scientific protocols—part of a general effort in the past two years to give the program more rigor and structure. It seems to be working. Recently the nonprofit Wildlife Conservation Society (WCS) asked Morse to train a group to monitor the Great Swamp, a rich wildlife area in New York. "This is a powerful way to put science to work," says Kristi MacDonald, a WCS biologist. "The data are reliable—rigorous enough to stand up in court, yet accessible to anyone."

Morse wants to use feedback from Shaw and other reviewers to strengthen training, develop an outreach program and a refresher course for graduates, and create a data clearinghouse so groups can compare notes. As she puts it, "Keeping Track has to become more than Sue Morse."

Yet even if additional instructors lack her sharp eye and trailside wit, the program will continue to convey Morse's greatest gift, which is to help students do what she has done herself: convert a private passion for wildlife into deeply engaging and effective conservation work.

"Too often, even people who care deeply about nature and wildlife don't get involved in any effort to protect it," she says. "They're either put off by the usual ways of advocacy or they burn out. Keeping Track gives people a way to do some good work while actually being in the woods."

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